Evidence Based Midwifery
Applications in Context

Edited by

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Contents

The Rationale for a Book about Evidence Based Midwifery

Helen Spiby and Jane Munro

The evidence based medicine movement, which arose in McMaster University in Canada in the 1990s, has steadily grown to influence health-care professions other than medicine where it is recognised as evidence based practice. It is now widely accepted as a fundamental tenet where health care is available in developed country settings and the prevailing medical system is one of western medicine. The importance of evidence in defining policy and practice in the UK health system and others is acknowledged and, probably, enduring.

Evidence based practice is widely acknowledged as a five-stage activity that involves identifying a research question, locating and subsequently, critically appraising the evidence, implementing the evidence into practice and appraising the outcome (Critical Appraisal Skills Programme 2002). Midwifery activity in evidence based practice has included literature reviews; the generation of new evidence to inform policy and practice through primary research, contributing to the synthesis of evidence and knowledge transfer through systematic reviews and guideline development, audit and other evaluation activity. There are a considerable number of texts available to midwives that chart the development of research in midwifery and that identify the milestones in the pathway towards increasing research involvement and capacity in midwifery (e.g. Proctor and Renfrew 2000). There are also a range of readable, authoritative texts that support the development of research skills for both students and practitioners of midwifery (Rees 1997; Wickham 2006). Although such texts deal well with the five steps in the evidence based practice cycle, they tend to focus on the first three, formulating research questions, selecting an appropriate methodology to answer the question and critically appraising published research. Other texts have addressed the fifth step of evaluation of outcomes (Hicks 1996).

This book has a different purpose that relates to the fourth stage in the cycle, that of incorporating evidence into practice as it is our contention that this component has often seemed to receive less attention or discussion in the midwifery profession. This volume was developed from the experiences of the editors following several years of involvement in the development, implementation and evaluation

of evidence based guidelines for midwifery led care in labour. That work, commenced in 1997, has been reported widely in the academic midwifery literature and disseminated in midwifery and multidisciplinary conferences including the International Confederation of Midwives Congress, the Conferences of the European Midwives Association and Evidence Based Midwifery Network (EBMN) with the purpose of generating debate about the issues and experiences of midwives in evidence based midwifery. The guidelines initiative was generally well-received both locally in the National Health Service (NHS) Trust that first supported it and by the clinical and practice development midwifery communities. The early work coincided with a major NHS policy initiative (NHS Executive 1999) that introduced the concept of clinical governance, comprising clinical effectiveness, evidence based practice, clinical risk management and continuing professional development. The third and fourth editions of the evidence based guidelines were commissioned by the Royal College of Midwives (RCM), to support midwives working in such systems of care and the guidelines were available through the RCM's website www.rcm.org.uk. Publication of a series of papers described the initial work in the British Journal of Midwifery (Spiby and Munro 2001; Munro and Spiby 2001; Munro and Spiby 2003; Spiby and Munro 2004), a further paper in *Midwifery* focuses on the third edition (Spiby and Munro 2007). Through these papers, and the other avenues for dissemination of that work described below, we aimed to disseminate our experiences in the hope that this would be of interest to, and elucidate the reflections of other midwives working in this area.

A further avenue utilised for dissemination was the EBMN, a UK based midwifery interest group, commenced in 1998 and of which the editors were founder members. This group was created to offer a forum for the sharing of ideas, initiatives and experiences in all aspects of evidence based midwifery practice. The EBMN membership includes midwives from several midwifery constituencies including those working in clinical and practice development roles, education, research and supervision of midwifery. In its early days, a nucleus within the membership presented their local initiatives to colleagues, talked honestly and reflectively about their experiences and engaged in debate on national evidence related issues including the, at that time, newly established guideline programme of the NHS National Institute for Clinical Excellence (NICE), subsequently the NHS National Institute for Health and Clinical Excellence.

A further rationale for this book was the dearth of texts related to contemporary evidence based midwifery practice that addresses issues of relevance to both clinical and educational practitioners of midwifery. Practising evidence based midwifery is not always easy in a number of health-care systems; this is seldom acknowledged. The challenges can encompass difficulties in access to evidence resources, educational preparation that has not included critical appraisal and organisational or local issues that inhibit midwives from practising in line with the evidence. This book, therefore, has a focus on the dissemination and utilisation of evidence for midwifery practice and not on conducting primary research. We are also aware, through networks including EBMN, that some initiatives and experiences related to evidence based midwifery have not been reported in the

midwifery journals. This may be due to a range of factors. Increasing workloads for midwives in both the clinical and academic settings; a reluctance to publish what might seem to be simply a project narrative; a midwifery tradition of 'getting on with the job' and possibly where difficulties have been encountered, diffidence in reporting these. It is also important to acknowledge the range of situations where, for example, evidence for a particular aspect of care is not available or where evidence is accessible, local issues prevent its implementation. This book is an attempt to disseminate evidence related midwifery activity beyond existing networks and to enable continued debate of important methodological and philosophical issues.

Some chapter contributors are already well known for their contribution to midwifery scholarship and practice development whilst others are providing insights not previously presented or discussed widely. Whilst the contributors to this text are predominantly UK based, there is much to be gained from wider international reflection. Contributions from individuals working in Greece, Canada and the Netherlands offer additional insights into contemporary midwifery experiences. Several of these chapters have arisen from long-standing international linkages, for example, between the Mother and Infant Research Unit at the University of York and the TNO Prevention and Health Institute, Leiden in the Netherlands and through the European Midwives Association.

Terminology

There has been some debate about appropriate terminology for midwifery's interaction with evidence based practice. Wickham (1999) suggested that evidence-informed midwifery was a more appropriate term and, whilst supported by some midwifery writers, this terminology has not engendered as much debate as might have been expected. We have continued to utilise the term *evidence based midwifery* as we believe this term has wide currency across a range of settings.

Content

Chapters have been organised into groupings that reflect key themes. The first chapter continues the methodological and philosophical debates from our earlier papers. These relate to the nature of evidence and the appropriateness of existing hierarchies when considering evidence to inform midwifery practice. The issue of what influences practice where evidence is lacking is introduced here and further debated later by Tina Lavender.

The editors' experiences of evidence based clinical guidelines have been reported elsewhere (Spiby and Munro, 2004). Midwives Marianne Amelink, Pien Offenhuis and Kathy Herschderfer and epidemiologist Simone Buitenduik from the Netherlands describe the first Midwifery Practice Standard, commissioned by the KNOV (Royal Dutch Organisation for Midwives), the Dutch national midwifery organisation. They also describe progress towards achieving evidence based midwifery in the Netherlands. In Holland, whose system of midwifery

is internationally respected, challenges in developing research capacity within a clinically very skilled and autonomous workforce are being addressed. These contributors call for greater international collaboration in evidence based midwifery: a sentiment that we endorse.

In Canada, the home of evidence based medicine, the challenges in providing choice in line with the evidence base appear to come from professional organisations. The value of challenging changes in policy and examining the related evidence base is well-described by Hélène Vadeboncoeur in the context of providing care for women where pregnancy follows previous birthing by caesarean section. The importance of careful scrutiny of policy and its evidence base is emphasised.

Midwives in Greece appear to be in a rather different position. They need to negotiate professional boundaries, to secure space for their practice and to achieve positions that positively influence their national state-funded health service. The high levels of use of privately funded health care in the Greek population mean that many women receive care in systems that do not incorporate autonomous midwifery practice. Olga Arvanitodou, President of the Greek Midwives Association, describes the challenges of enabling midwives to engage with evidence based care in settings that remain dominated by medical practice.

Systems that can act in support of midwives' engagement with the evidence include education. Preparing future midwives to be confident practitioners within an evidence based system is an area that has received relatively little attention. Fiona McVane-Phipps engages in debates about appropriate paradigms for evidence based midwifery and links this with contemporary midwifery concept of optimality. Fiona also reports her positive experiences of using problem based learning (PBL) as an approach that fosters the development of evidence based practitioners.

There are often challenges in ensuring that qualified practitioners continue to work comfortably and confidently when exposed to new systems or practices. Denis Walsh details his work, carried out over several years, of facilitating short courses that support qualified midwives in using evidence based care during labour. His approach incorporates a social model of care, acknowledges the contribution of intuition and importance of women's preferences.

In the United Kingdom, all midwives are allocated a named supervisor of midwives, a non-managerial relationship whose purpose is to foster the provision of a safe maternity service for women and families and to support the midwife in her practice, in whatever field of midwifery. Carol Paeglis, Local Supervising Authority (LSA) Responsible Midwifery Officer for Yorkshire and North Lincolnshire, describes how the system of statutory supervision of midwifery, unique to the United Kingdom, interacts with evidence based practice within the NHS and questions whether the full potential of statutory supervision is being achieved in this context.

The appendix, contributed by Marlene Sinclair, reminds readers that any new evidence or experience must be disseminated and that a prime route for that is by writing for publication. Her chapter offers useful guidance to both novice

and experienced midwifery authors and also highlights the importance of critical appraisal of the evidence.

The fourth group of chapters reflects the real-life challenges of using evidence in practice. Tina Lavender's chapter reflects on the unfortunate polarisation of methodological approaches and also, by using a recent example from policy development, the difficulties encountered where evidence is lacking. The influence that midwives' own experiences may have on their use of evidence and the potential for gate-keeping women's access to evidence are described.

Gillian Fletcher and Belinda Phipps, National Childbirth Trust (NCT) teacher and Chief Executive, respectively, represent a maternity service user perspective and identify the potential for service user representatives to support evidence based midwifery. In their review of consumer involvement in maternity services, they chart the development from difficult beginnings, borne out of dissatisfaction with care, to the current position where consumers or service users are now potential allies for those providing maternity services. The involvement of representatives of service users in evidence based maternity care is described through their membership of national groups, for example, NICE guideline development groups. Service user involvement in all aspects of NHS service provision is now supported by government policy in the United Kingdom (Department of Health 2004) but this may, of course, not be the case in other settings.

Marianne Mead challenges and reminds us that midwives' representations of their care and their autonomy may not always be reflected in the services that they provide. She highlights the considerable variations that exist in what midwives may understand as normality and risk related to labour. We are reminded that midwives' practice occurs in the context of a health system currently driven by targets, finance and skill-mix initiatives.

Helen Shallow offers a UK consultant midwife's perspective on developing guidelines in two apparently culturally different multidisciplinary settings. Parts of her account will resonate with some readers. The role of guidelines in supporting midwifery practice and the importance of ensuring continuing midwifery support, at all levels in an organisation, in achieving organisational change are both highlighted.

The book concludes with the editors' observations on the state of evidence based midwifery, current challenges, recent initiatives and areas that require attention for evidence based midwifery to progress.

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Notes on the Contributors

Marianne P. Amelink-Verburg: After being certified as a midwife in 1976, Marianne Amelink practised for 15 years as an independent midwife in the cities of Amsterdam and Hilversum. From 1990 to 1995, she was the editor of the Dutch midwifery journal (Tijdschrift voor verloskundigen); afterwards she worked as a midwife researcher at TNO (Scientific Institute for Applied Research). Since 2006, she is an inspector for prenatal health and the chief midwifery officer at the Dutch Health Care Inspectorate. She wrote this chapter in a non-official capacity.

Olga Arvanitidou: Olga qualified as a midwife from the Thessaloniki Midwifery School in 1985. Since she was a midwifery student, she has been actively involved in midwifery issues in her country. In 1991, she took on more roles in the Midwives Association of Thessaloniki, in areas connected with women's health and rights, breastfeeding and normal birth at a time when they were facing increased medicalisation. She has worked with her colleagues to improve the academic and scientific profile of midwives, to place midwifery associations clearly on the map alongside other health professional associations, and to lobby for political changes to the Greek maternity services. In 1998, she was elected president of the Midwives Association of Thessaloniki, Greece. She has been a member of the Executive Board of the European Midwives' Association since 2005

Simone E. Buitendijk: Simone is a perinatal epidemiologist. She is head of the Child Health Research Group at TNO Institute for Applied Scientific Research in the Netherlands. Her present research interests include preventive health care and public policy for pregnant women and newborns, women's satisfaction with pregnancy and delivery care, long-term follow-up of newborns at risk, evidence based midwifery and obstetrics, effectiveness of preconception counselling and effects of postpartum home care on the health of mothers and newborns.

Gillian Fletcher: Gillian is an NCT antenatal teacher and tutor and past president of the NCT (2000–2005). In 1997, she and colleague Elisabeth Buggins developed *VOICES* – training and support for maternity services user representatives and

continues to deliver VOICES workshops for Maternity Services Liaison Committees (MSLCs) across the United Kingdom. As an affiliate and member of the Patient Experience Team at the National Clinical Governance Support Team (2001–2005) she worked on Delivering Healthy Babies Development and with the Picker Institute on the Patients Accelerating Change Programmes. Drawing on her own considerable experience as a lay member of Royal College of Obstetricians and Gynaecologists (RCOG), RCM, and NICE committees, her work as a freelance trainer in user involvement across different health fields focuses on enabling service users to be actively involved in decisions about their care and to work in sustainable effective partnership with professionals developing and monitoring services.

Kathy C. Herschderfer, RM: Kathy received her midwifery certification in 1981 and has more than 20 years experience as an independent community midwife in the Netherlands. Between 1993 and 2003, she combined this with a position as midwife researcher at TNO in Leiden after which she took on the position of secretary general of the International Confederation of Midwives at headquarters in The Hague. She has represented the midwifery profession in the development of international guidelines and standards at the World Health Organisation.

Tina Lavender, Professor of Midwifery at the University of Manchester: She leads a programme of research exploring maternal experiences, expectations and outcomes; her main research focus being the management of prolonged labour and partogram use. Tina has published extensively in this field. She is co-editor-in-chief of the *British Journal of Midwifery* and Associate Editor of the *African Journal of Midwifery and Women's Health*. Tina is an Honorary Fellow of the RCM and European Academy of Nurse Scientists. She is also a Cochrane reviewer.

Marianne Mead, RM, ADM, MTD, BA(OU), PhD: Marianne is a senior visiting Research Fellow at the University of Hertfordshire: Brought up in Belgium, Marianne came to the United Kingdom in 1969 to undertake her nursing studies. Subsequently she studied midwifery and has worked as a midwife ever since. The course on professional judgment and decision-making followed during her OU degree led her to the realisation that the principles of decision-making were inseparable from the theories of research in the adoption of evidence based practice. When the opportunity to study for a PhD presented itself, it was inevitable that she would explore midwives' perception of intrapartum risk in a situation where medicalisation of childbirth was growing in parallel with a rise in caesarean section rates in the United Kingdom and abroad. This was eventually followed by further studies in various European countries, including Belgium, France, Germany, Luxembourg and four Nordic countries. These revealed a generally exaggerated perception of the intrapartum risk by midwives. The possibility of exploring these issues with obstetricians is now being explored. Further studies on how exaggerated risk perception can be addressed will be explored to examine the possibility of linking such interventions to a reduction

in the medicalisation of childbirth and an eventual reduction in the emergency caesarean section rate.

Jane Munro, MA, BA(Hons), RM: Jane qualified as a midwife in 1980. She has worked in France, the Ivory Coast and several different NHS hospitals in the United Kingdom. She has been involved in research and developing evidence based practice in midwifery for the last 10 years. Her particular interests lie in maternal psychological well-being, different models of midwifery care and the development and use of guidelines. She is co-chair of the EBMN. She has always been an active member of the Association of Radical Midwives and is their current representative in the European Midwives Association.

Pien M. Offerhaus: Pien graduated as a midwife in 1985. Afterwards she practised 10 years in several independent midwifery practices in Amsterdam, Wageningen and Nijmegen. In 1995, she got involved in midwifery research, and worked as midwife researcher in several projects. She studied health science at the University of Maastricht. Since 2003, she is a staff member of 'Guideline Development' of the KNOV, and is responsible for guideline development.

Carol Paeglis, MA, BHSc, ADM, Supervisor of Midwives, RM, RN: Carol is a qualified nurse and has practised midwifery for 25 years. She practised mainly as a community midwife, before moving into practice development, qualifying as a supervisor of midwives and subsequently moving into clinical governance. Carol's first degree is in 'Midwifery Studies', with a Masters in 'Leadership in Health Service Improvement and Development'. She has done national secondments, as the clinical communications manager for the NHS Information Authority Maternity Care Data Project, as the midwifery clinical speciality advisor with the National Patient Safety Agency and as the quality and audit development co-ordinator for the RCM. In 2005, Carol became the LSA midwifery officer for Yorkshire and Northern Lincolnshire, which became Yorkshire and the Humber LSA in 2006. She has worked, presented and published at local, regional and national levels and has a portfolio of service developments and improvements and teaching across primary and secondary care and to different professional groups and agencies.

Belinda Phipps: After completing a BSc (Microbiology), Belinda joined Glaxo Pharmaceuticals working in market research, sales and marketing. After serving as UK sales manager (the first female sales manager) she moved to become UK marketing manager managing, among others, Zantac, Glaxo's key profit generator. It was expected to decline in sales. They grew, however, as a result of marketing the product in a new medical indication. Belinda moved to study for an MBA at Ashridge Management College. She joined the Blood Transfusion Service to lead the merger of two of the services to form the largest transfusion service in the United Kingdom. The service was not meeting the needs of hospitals for blood but after making significant organisational changes, was able to fully supply its

own hospitals and support hospitals in other areas. At the same time, the service won an NHS quality award for improvements in platelet quality. She managed a medical publishing company for a brief period, after which she became CEO of an NHS Trust. The Trust made substantial, sustained reductions in waiting times across all specialties. As part of the NHS task force on waiting times Belinda worked with many NHS Trust Boards to teach the operations skills needed to enable them to reduce their waits. Belinda then joined the NCT as its CEO. Belinda has three daughters, all born at home and it was this experience that sparked her passion and enthusiasm for working to enable all parents to have a much better experience of becoming and being the parents of a new baby.

Fiona MacVane Phipps: Although American by birth and upbringing, Fiona arrived in England in her early twenties with a Scottish husband, two suitcases and her first son, then three. His brother arrived just about a year after her arrival in the United Kingdom, which introduced Fiona to the UK model of midwifery and strengthened her resolve to become a midwife herself. After completing both nursing and midwifery training, Fiona worked as a team midwife and later as a community midwife. She moved into the academic sector after completing an MMedSci degree in 1996 and is currently completing a doctoral thesis exploring the nature of midwifery knowledge and whether such knowledge can be assimilated into inter-disciplinary teaching. Her research utilised PBL scenarios as a data collection tool, reflecting a long association with PBL in teaching and curriculum development.

Marlene Sinclair, PhD, MEd, DASE, BSc, RNT, RM, RN, Cert Neurosurgical/Neuromedical Nursing: Dr Marlene Sinclair is Northern Ireland's first professor of midwifery research and is employed at the Institute of Nursing Research, University of Ulster. A personal chair was awarded for her contribution to research and development. Her research experience spans qualitative and quantitative methods and she has been involved in research using phenomenology, ethnography, action research and randomised controlled trials (RCTs). Recently she has been elected to sit on the Research and Innovation Committee of Senate at the University of Ulster and the local Northern Ireland R&D Research Advisory Forum. Marlene is the editor of the RCM journal *Evidence Based Midwifery* and is a member of RCM Council.

Helen Shallow, MMed Sci (Clinical Midwifery Practice), RGN, RM, ADM, PGCE, SoM: Helen trained as a midwife in Edinburgh in 1987. She has worked in all areas of midwifery practice and in a variety of different settings including practising midwifery for just over two years in Botswana. She became a Supervisor in 2003, a year after her appointment as consultant midwife in 2002. As her career developed and through her own research, Helen overtly promotes normal birth and supports midwives to protect and safeguard normal midwifery practice. At the same time,

she believes that birth outcome is secondary to women coming through labour and birth with their dignity and spirit intact, irrespective of what path her journey takes. It has long been her belief that professionals and the public alike assume that normal birth just happens, whereas she contends that it takes the skill, knowledge and hard work of the midwife and mother working in true partnership to ensure optimal outcomes. Helen has developed expertise in supporting women whose choices don't comply with Trust guidelines. This is a particularly challenging area where Helen believes the consultant role and supervision are central to enabling real informed choice for women. Helen has two sons, two grandchildren and a very supportive husband. She lives in Lincolnshire and stays in Yorkshire during her working week.

Helen Spiby, MPhil, RM, RGN, Certificate in Adult Intensive Care Nursing: Helen is a Senior Lecturer (Evidence based practice in midwifery) in the Mother and Infant Research Unit at the University of York with experience in research, education, practice and supervision of midwifery. Prior to working in York, Helen has worked in the NHS in London, Edinburgh and Sheffield and at the University of Leeds. Her recent research includes studies of early labour including a large RCT, a survey of early labour services in England and evaluation of the telephone component of the All Wales Clinical Pathway for Normal Labour. Other current research interests include preparation for and care during labour, the organisation of maternity care, evidence based practice including clinical guidelines, the development and evaluation of new roles in maternity care and post-traumatic stress disorder related to childbearing. Helen previously chaired a Guidelines Review Panel for NICE and is a member of the International Confederation of Midwives' Research Advisory Group.

Hélène Vadeboncoeur: She holds a Master's degree in Community Health and a PhD in Applied Social Sciences from the Université de Montréal (Canada). Her recent thesis was on the humanisation of childbirth in hospitals. Since the middle of the 1980s, her working life has been dedicated to the improvement of obstetrical practices so that every woman could be empowered and give birth with dignity. Helene is the author of the only French book on vaginal birth after caesarean (VBAC), *Une autre césarienne? Non merci*. During the 1990s, she worked for several Quebec health institutions, on the implementation of birth centres staffed with midwives. This was followed by teaching research on the university midwifery programme and to doulas and working on research projects in the perinatal field. Helene is one of the researchers involved in a 4-year multicentre randomised controlled study on how to lower cesarean rates in Quebec, the QUARISMA project, based at the research centre of the university hospital Ste-Justine, in Montreal, Quebec: the *Unité de recherche clinique et évaluative en périnatalité*. An active member of the perinatal committee of Quebec's Public Health Association and of the international committee of the Coalition for Improving Maternity Services and

author of several publications in scientific periodicals and the lay press, Helene regularly gives presentations at the international level, mostly in Europe and Latin America.

Denis Walsh, RM, RGN, DPSM, PG DipEd, MA, PhD: Denis is a reader in normal birth at the University of Central Lancashire, United Kingdom, and an independent midwifery consultant, teaching on evidence and normal birth across Europe and Australia. Denis trained as a midwife in Leicester, United Kingdom and has worked in a variety of midwifery environments. He publishes widely on normal birth and has written two books on the birth centre model and evidence based care.

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1. *The Nature and Use of Evidence in Midwifery Care*

Jane Munro and Helen Spiby

Introduction

At the beginning of the evidence based practice movement, much of the midwifery profession responded enthusiastically to the potential for change. Critical to this was the publication of resources of a quality not previously available to midwives, particularly *Effective Care in Pregnancy and Childbirth* (Enkin *et al*. 1989). Evidence based practice was seen to be offering a powerful tool to question and examine obstetric-led models of care that had dominated the previous decades (Page 1996; Renfrew 1997; Wickham 2000; Munro and Spiby 2001; Brucker and Schwarz 2002; Bogdan-Lovis and Sousa 2006). The results of such examination could have meant 'starting stopping' the unhelpful interventions that had embedded themselves in common practice (Muir Gray 1997). Page (1996, p. 192) even suggested that it offered to 'take us out of the dark ages and into the age of enlightenment' by demanding that women were only offered care and treatments that had been evaluated. Midwives were also becoming more active in research – undertaking studies that were to have clear clinical impact (Sleep and Grant 1987; Hundley *et al*. 1994; McCandlish *et al*. 1998). However, some midwives have not been so enthusiastic, viewing the drive to create and implement evidence as a threat to their clinical freedom (Page 1996). Bogdan-Lovis and Sousa (2006), observing the professional conflict between an obstetric and midwifery model of care, comment on the fact that in the context of over-medicalisation of childbirth, high-profile evidence is usually measuring action rather than inaction, by focusing on when to intervene rather than whether to intervene at all. They suggest that evidence based practice can thus conflict with the midwifery mandate of non-intervention in the process of normal childbirth.

What is evidence?

There continues to be considerable ambiguity about the meaning of the term *evidence* (Walsh 1996; Stewart 2001; Lomas *et al*. 2005). Lomas *et al*. (2005, p. 1)

define the concept of evidence at a basic level as 'facts (actual or asserted) intended for use in support of a conclusion'. In health care, evidence has generally been understood to be 'scientific evidence of effectiveness', which is the result of 'rigorous, objective, scientific enquiry' (DH 1996). Evidence based practice was originally defined in the medical world as 'the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients' (Sackett *et al*. 1996, p. 71). This view of 'best' evidence is also generally placed in a hierarchy. Guyatt *et al*. (2000) offered the broad definition that 'any empirical observations about the relation between events constitutes potential evidence'. Muir Gray (1997) suggested that epidemiology, the study of groups of patients and populations, was the science of most relevance to decision-making in health care.

A more inclusive definition of evidence, with a clear focus on context and implementation, was offered by the Strategic Policy Making Team (SPMT) (1999, p. 33) as 'high quality information, derived from a variety of sources – expert knowledge; existing domestic and international research; existing statistics; stakeholder consultation; evaluation of previous policies; new research, if appropriate or secondary sources'.

Lomas *et al*. (2005) undertook a systematic review to examine in detail how the concept of evidence is treated in health care by those who produce evidence, those who produce guidelines and those who make decisions. They suggest that evidence can be considered as being either colloquial or scientific. Colloquial definitions used generally in the public domain outside the research community are usually similar to 'something that points to, reveals or suggests something' (Brookes *et al*. 2004). The scientific definition, used by researchers, describes 'knowledge that is explicit (codified and propositional), systematic (uses transparent and explicit methods for methods for codifying) and replicable (using the same methods with the same samples will lead to the same results)' (Lomas *et al*. 2005, p. 3)

They found that the scientific view on evidence then breaks down roughly between two opposing views:

- that there are discoverable universal truths, independent of context;
- that evidence is of little value unless it is adapted to the relevant context.

Context-free evidence investigates what might work in ideal circumstances, and context-sensitive evidence investigates how and whether it might work in specific circumstances. Methods for obtaining evidence for either purpose are clearly very different, but as Lomas *et al*. point out, it is important that context evidence should not be viewed as any less 'scientific'. They advocate moving forward from the epistemological argument about what is 'best evidence' towards a 'balanced consensus' that is able to integrate

- medically oriented effectiveness research;
- social science–orientated research;
- colloquial evidence, representing the knowledge and views of stakeholders.

Is there such a thing as widely acceptable evidence?

Accepted knowledge is usually attached to authority and power (Foucault 1973; Oakley 1992). This dominant position can make questioning seem difficult and possibly inappropriate in what can manifest itself as a 'natural order' of status in the medical world. Downe and McCourt (2004, p. 5) describe an authoritative scientific paradigm existing in the western world that is confident that 'certain' knowledge can be established from the findings of large clinical trials and that this knowledge should be 'applied wholesale to individuals'.

The term *evidence based* is in common usage, with a confident assertion of authority (Walsh 1996; Petticrew and Roberts 2002). Lambert *et al*. (2006) identify evidence based medicine (EBM) in several different contexts: as a movement, a practice, a paradigm, a methodology, an innovation and a regulatory system. Goldenberg (2006) places 'evidence based practice' clearly in the social context of medical practice, where there is powerful established medical authority and argues that while EBM may question the practice of individual physicians, it can also reinforce the power of the medical profession as a whole, through assumptions that there is only one objective method of 'knowledge gathering'. She goes on to point out that appealing to the authority of evidence can work to obscure the subjectivity of a chosen methodology and present the evidence as 'value-free' fact rather than as the product of complex interpretation. Armstrong (2002) explores the role of EBM in supporting the collective autonomy of the 'knowledgeable' professional body but also suggests that it can overtly challenge the clinical discretion of the individual practitioner who is then expected to practice within the prescribed recommendations. In this context, there has been much resistance from the medical profession whose traditional authority has been questioned by the EBM movement that demands that 'they take science seriously' (Smith and Pell 2003; De Vries and Lemmens 2005). Although many social scientists are enthusiastic about the critique of traditional 'anecdotal' medical practice, they also articulate concerns about the objective nature of EBM (Lambert 2006). De Vries and Lemmens (2005) suggest that the cultural assumptions visible in clinical practice can also impact the collection and interpretation of evidence, and they examine the potential for financial bias, when sponsors are able to influence research design and publication.

Systems of health care often appear concerned with pathology rather than well-being and this continues to be reflected in the maternity services research, where most outcome measures are related to morbidity (Downe and McCourt 2004; National Institute for Health and Clinical Excellence 2007). Outcome measures of mortality and morbidity have an inherent authority and are key to reflecting on and developing practice. Intervention rates are also used as measures of concern. This form of evidence often guides practice by assessing the effectiveness of midwifery interventions. Downe and McCourt (2004) advocate a new framework for understanding women's experience of birth, linking maternity care and research to the promotion and exploration of positive well-being ('salutogenesis') rather than the identification and treatment of pathology.

There are several 'unscientific' sources of evidence, which are valued highly by midwives – intuition, choice, experience, insight, common sense, philosophy, policy and practice (Wickham 1999). Wickham supports the concept of 'evidence informed' rather than 'evidenced based' midwifery and describes midwifery as being 'far more than evidence', with a need to move away from the 'just science' paradigm, when recognising that only about 12% of midwifery and birth decisions can be supported by evidence (Page 1996). She goes on to suggest that midwives should not continue to look for 'absolute' answers to suit every woman, but explore how they can help women to find options that will work for them.

The methodological divide

Stewart (2001) found that definitions of evidence can vary widely among health professionals and are affected by individuals' own beliefs, which then have an impact on the perceived legitimacy of different types of evidence. Evidence that reinforced notions of authoritative knowledge appeared to move easily into clinical practice, whereas evidence that challenged professional cultural norms was more difficult to implement. Evidence that conflicts with an individual's own philosophy may thus stimulate an in-depth search for its flaws. Gergen and Gergen (2003) suggest that knowledge is generated and accepted within communities that have a shared purpose. This can mean that a research method is perceived as accurate only in terms of the conventions shared within the community. Every method of enquiry thus embodies assumptions about the nature of the world and inherently constrains ways of understanding. Experimentalists are looking at the world through cause and effect and phenomenologists are looking at the world through individuals' feelings and perceptions.

Hierarchies of evidence

Hierarchies that classify 'people or things in order of rank or importance' (Brookes *et al*. 2004) and place one group in a dominant position are a familiar and accepted concept in most areas in health care. Most of us are well aware of the different grades of practitioners and patients and are used to working with such authoritarian classifications. Different grades are a common assessment of status that pervades daily conversation in the UK National Health Service (NHS) work place.

The use of hierarchies of evidence is considered by some to be essential in order to make a distinction between evidence based and consensus based recommendations for practice (Grilli *et al*. 2000). Such hierarchies are seen by others to be limited to the underpinning of a medical positivist approach to research that places highest value on the use of quantitative methods to test hypotheses (Stewart 2001; McCourt 2005). Downe and McCourt (2004) argue that the definition of science here needs to be reclaimed and broadened in order to incorporate a fuller body of knowledge about childbirth.

A hierarchy of evidence is simply a grading system where the levels of hierarchy reflect the study design. The first attempt at grading the level of evidence was undertaken in 1979 by the Canadian Task Force on the periodic health examination (Atkins *et al*. 2004). Randomised controlled trials (RCTs) were classified as good (level 1) evidence, cohort and case control studies were classified as fair (level 2) evidence and expert opinion was classified as poor (level 3) evidence. It was very simple and as such easy to understand and implement, but criticised for its simplicity that allowed for many implicit judgements.

An example of some of the systems in current use is shown below.

The Scottish Intercollegiate Guidelines Network (SIGN) was established in 1993 to develop evidence based guidelines for the NHS in Scotland. Their experience in guideline development led them to review and update their grading systems to seek a balance between methodological rigour and applicability. They discuss the subjective nature of recommendations, which requires the guideline development group to exercise judgement based on clinical experience as well as knowledge of the evidence and methodologies used. The guideline development groups are therefore asked to 'consider the evidence in terms of quantity, quality and consistency; applicability; generalisability; and clinical impact' (Harbour and Miller 2001, p. 336). Recognising that the use of subjective judgement here can introduce bias, they defend this by stating that it is not an individual's judgement but that of a 'carefully composed multidisciplinary group'.

The Scottish Intercollegiate Guidelines Network (2008) system outlined below (Table 1.1) also discusses the recommendation of the *good practice point* (GPP) offered when there is no research evidence but when there is 'sound clinical practice that nobody is likely to question' and emphasises that it should be used only when there is no alternative. The GPP is used widely but is also an issue of some contention – when the definition of the expertise necessary to recognise such clinical practice is unclear (Miller and Petrie 2000; Walsh 2007).

The GRADE (Grading of Recommendations, Assessment, Development and Evaluation) Working Group (Schünemann *et al*. 2006) through a series of international workshops developed the following set of criteria to assess the quality of evidence (Table 1.2) and the strength of recommendations (Table 1.3). The system has explicit definitions and judgements to be used during the grading process. As they suggest, a serious limitation of this system is its complexity.

A very familiar and authoritative grading of evidence is that used by the National Institute for Clinical Excellence (NICE). NICE was established in 1999 as part of a raft of changes that aimed to reduce variations in care and maximise the cost-effectiveness of treatments within the NHS in England and Wales contained in the new policy *The New NHS: Modern and Dependable* (DH 1997) and the supplementary documentation 'A First Class Service: Quality in the new NHS' (NHS Executive 1999). The institute subsequently also incorporated the work of the NHS Health Development Agency that focused on public health and health-promoting interventions under the revised title of the National Institute for Health and Clinical Excellence. NICE is charged with the development of national guidance and its work streams include cancer service guidance, clinical guidelines, interventional procedures, public health intervention and programme

Table 1.1 SIGN grading system

Levels of evidence	
1++	High-quality meta-analyses, systematic reviews of RCTs or RCTs with a very low risk of bias
1+	Well-conducted meta-analyses, systematic reviews of RCTs or RCTs with a low risk of bias
1−	Meta-analyses, systematic reviews of RCTs or RCTs with a high risk of bias
2++	High-quality systematic reviews of case–control or cohort studies. High quality case–control or cohort studies with a very low risk of confounding, bias or chance and a high probability that the relationship is causal
2+	Well-conducted case–control or cohort studies with a low risk of confounding, bias or chance and a moderate probability that the relationship is causal
2−	Case–control or cohort studies with a high risk of confounding, bias or chance and a significant risk that the relationship is not causal
3	Non-analytic studies, e.g. case reports, case series
4	Expert opinion
Grades of recommendation	
A	At least one meta-analysis, systematic review or RCT rated as 1++, and directly applicable to the target population or,
	A systematic review of RCTs or a body of evidence principally consisting of studies rated as 1+, directly applicable to the target population and demonstrating overall consistency of results
B	A body of evidence including studies rated as 2++, directly applicable to the target population and demonstrating overall consistency of results; or
	Extrapolated evidence from studies rated as 1++ or 1+
C	A body of evidence including studies rated as 2+, directly applicable to the target population and demonstrating overall consistency of results; or
	Extrapolated evidence from studies rated as 2++
D	Evidence level 3 or 4; or
	Extrapolated evidence from studies rated as 2+

Source: Reproduced with permission from the Scottish Intercollegiate Guidelines Network (2008).

Table 1.2 GRADE system

GRADE quality assessment criteria			
Quality of evidence	**Study design**	**Lower if**	**Higher if**
High	Randomised trial	**Study quality:** −1 Serious limitations −2 Very serious limitations −1 Important *inconsistency* **Directness:** −1 Some uncertainty −2 Major uncertainty −1 *Sparse data* −1 High probability of *reporting bias*	**Strong association:** +1 Strong, no plausible confounders, consistent and direct evidence* +2 Very strong, no major threats to validity and direct evidence** +1 Evidence of a *dose response* gradient +1 All *plausible confounders* would have reduced the effect
Moderate			
Low	Observational study		
Very low			

1 = move up or down one grade (e.g. from high to intermediate); 2 = move up or down two grades (e.g. from high to low).
* A statistically significant relative risk of >2 (<0.5) based on consistent evidence from two or more observational studies, with no plausible confounders.
** A statistically significant relative risk of >5 (<0.2) based on direct evidence with no major threats to validity.

Source: Schünemann *et al*. (2006). Reproduced with permission.

guidance and technology appraisals. More recently, it has also developed tools to assist in the implementation of its guidance. NICE has published guidelines using different systems of assigning levels to the evidence and is now joining the international debate about what system is most appropriate (National Institute for Health and Clinical Excellence 2007). The one shown in Table 1.4 is that used in the Guideline for Antenatal Care (NICE 2003). It is interesting to note that guidelines published under the auspices of NICE and the collaborating centres have consistently used a grading approach but the recent Intrapartum Care Guideline does not.

As Earl-Slater (2001) pointed out, it is unclear in such hierarchies what is meant by 'well-designed' and not so 'well-designed' studies and distinguishing between the two is not straightforward. This is further complicated by the fact that there are different criteria used for judging quality and that designs are not always well documented.

Table 1.3 GRADE system

Decisions about the strength of a recommendation	
Factors that can weaken the strength of a recommendation	**Explanation**
Lower quality evidence	Will create greater uncertainty about the size of the (relative) effects (benefits and harms)
Uncertainty about the balance of benefits versus harms and burdens	Uncertainty about the baseline risk, prevalence of a problem or health status, which could affect the size of the (absolute) effects
Uncertainty or differences in values	Uncertainty about the relative importance of the benefits and downsides to those affected or differences in how important they are to different people, which could affect the balance between the benefits versus harms and burden
Marginal net benefits or downsides	The anticipated net benefits or downsides are small (and uncertain)
Uncertainty about whether the net benefits are worth the costs	Uncertainty related to lack of information about the cost or whether the resource expenditure is justified by the anticipated benefit

Source: Reproduced with permission from Schünemann, Fretheim, and Oxman (2006). *Health Research Policy and Systems* 4: 4–5, 21.

A study by Atkins *et al*. (2004) used 12 assessors who all had experience of at least one system to appraise the current six prominent systems of grading evidence. There was poor agreement among the assessors about the scoring of the six hierarchies, but consensus that none of the approaches adequately addressed all important concepts and dimensions. Their discussions, however, did agree on some conclusions including the following:

- Systematic reviews should not be included in a hierarchy of evidence because a well-done review might include anything from no studies, to poor-quality studies with inconsistent results to high-quality studies with consistent results.
- Baseline risk should be taken into consideration in defining the population to whom a recommendation applies.

These conclusions, however, are not widely endorsed.

A problem with grading evidence in this way is the fixed nature of hierarchies–with the RCT always being seen as the 'gold standard' and remaining at the top of the ladder (Petticrew and Roberts 2002). An RCT is the most reliable way of measuring the effectiveness of a treatment or intervention, as the processes employed, such as randomisation and strict inclusion criteria, minimise the risk

Table 1.4 NICE grading scheme

Recommendation grade	**Evidence**
A	Directly based on category 1 evidence
B	Directly based on • category II evidence or • extrapolated recommendation from category I evidence
C	Directly based on • category III evidence or • extrapolated recommendation from category I or II evidence
D	Directly based on • Category IV evidence or • extrapolated recommendation from category I, II or III evidence
Good practice point	The view of the Guideline Development Group
Evidence category	**Source**
Ia	Systematic review and meta-analysis of randomised controlled trials
Ib	At least one randomised controlled trial
IIa	At least one well-designed controlled study without randomisation
IIb	At least one other type of well-designed quasi-experimental study
III	Well-designed non-experimental descriptive studies, such as comparative studies, correlation studies or case studies
IV	Expert committee reports or opinions and/or clinical experience of respected authorities

Source: National Institute for Health and Clinical Excellence (2003). Reproduced with permission.

of confounding factors that influence the results (Albers 2001; Evans 2003). There are many interventions for which RCTs have not been done. They can be expensive, sometimes difficult to do and sometimes unethical as potentially harmful interventions cannot be assigned or lifesaving treatment withheld (Albers 2001). With rare events, very large samples are necessary, which can make the study not only extremely expensive but sometimes also difficult to complete. In the framework of seeking context-sensitive evidence, RCTs have significant limitations.

They cannot answer questions about patient or practitioner attitudes, beliefs and behaviours. They cannot answer questions about the prevalence and natural history of disease. They cannot answer questions about diagnostic accuracy or about reliability of examination. They cannot explore the clinical reasoning processes. For epidemiological studies relating to real-world risk factors such as smoking or the impact of caesarean sections randomisation is clearly not feasible. The need to explore processes and phenomena in detail clearly calls for qualitative studies and surveys. Information of both outcomes and processes is important to develop practice.

One of the most significant criticisms of evidence hierarchies is that they do not clearly acknowledge that research designs must be appropriate for the question (Petticrew and Roberts 2002; Goldenberg 2006). The value of the drawn-out argument about methodological primacy clearly has to be questioned (Murphy *et al*. 1998; Petticrew and Roberts 2002). Different types of research questions demand different study designs. The exclusion of evidence related to women's experiences and feelings about birth, gathered through qualitative studies, is a real problem in the context of midwifery. As Goldenberg (2006) argues, the endorsement of an evidence hierarchy that discounts evidence from qualitative research has serious implications for all areas of women's health. She points out that interventions recognising the social and political context of ill health have consistently proved to be more effective in improving health outcomes.

Commonly used hierarchies therefore privilege the RCT to the extent that this method has become the accepted paradigm for the construction of medical knowledge (Swinkels *et al*. 2002; McCourt 2005; Lambert *et al*. 2006) and offers very little to guide holistic care based on exploration of the experience. The simple outcome measures that are often used in experimental evaluations do not appear appropriate for the complex interventions involved in modern midwifery practice (Downe and McCourt 2004; Walsh 2007).

There continues to be debate about the necessity for criteria to judge qualitative research (Murphy *et al*. 1998; Sandelowski and Barroso 2002; Walsh and Downe 2005; Greenhalgh 2006; Rolfe 2006; Porter 2007). Murphy *et al*. (1998) conclude that findings from qualitative research can be readily evaluated through clear documentation of the process of data collection and analysis, in which the data are related to the circumstances of their collection. They also comment that the risk of error can be reduced where the researcher has given comprehensive attention to the analysis and reporting of negative cases. Rolfe (2006) suggests that much of this debate has simply produced a 'quality muddle' that reinforces the quantitative–qualitative dichotomy and concludes that the search for a generic framework for assessing quality should be abandoned in favour of an expectation that each individual study should be assessed on its own merits. Walsh and Downe (2005) investigated the potential for meta-synthesis of qualitative research and are enthusiastic about what it could offer to challenge the 'traditional antipathy towards qualitative evidence' (p. 210). Perhaps it is early to be confident in expectations of this technique, when the methods are not 'easy or straightforward', the possible tensions between contradictory data and findings are many and the scope of it is still being debated.

As Rychetnik *et al*. (2002) conclude, when considering criteria for evaluating evidence on public health interventions, which could describe much midwifery practice (Garrod and Byrom 2007), the term *best* evidence or *level 1* evidence is inappropriate when only one measure of evidence quality, i.e. study design, is being used. Established hierarchies cannot and do not apply to all research questions (Guyatt *et al*. 2000). It is clear that any hierarchy of evidence should be critically appraised and not 'slavishly adopted' without considering who developed it and why and the existence of evidence to support it (Earl-Slater 2002 p. 157). As Petticrew and Roberts (2002) suggested some time ago, simple typologies of evidence can be more helpful in appraising evidence for public health contexts.

What do midwives do when there is little evidence to guide practice?

Resources that have been used and have influenced midwifery practice over the years include those published by professional bodies. These can be in the form of position statements on areas of practice or topical issues, policy briefing from national reports and intercollegiate standards such as those recently set out in *Safer Childbirth* (Royal College of Obstetricians and Gynaecologists 2007). There is often a confident management reaction to such documents but implementation varies when cost implications and change management are found to be difficult.

Much of what is recognised as good front-line practice is described in the literature on clinical reasoning and defined as the 'thinking and decision-making associated with clinical practice that enables therapists to take the best-judged action for individual patients. In this sense, clinical reasoning is the means to ''wise'' action' (Jones and Rivett 2004). It is a process that includes cognition, knowledge and the ability to monitor and adjust the thinking process (Higgs and Jones 2000). There are several models of such reasoning based on analysis of practitioner and client interactions. These include hypothetico-deductive reasoning (Jones 1992; Terry and Higgs 1993), pattern recognition, and knowledge reasoning integration (Schmidt *et al*. 1990). Hypothetico-deductive reasoning, a method derived from the field of cognitive psychology, is the approach seen to dominate midwifery decision-making until the 1980s (Mok and Stevens 2005). A hypothesis is generated based on data from the woman, and then tested out or further hypotheses generated, until a care pathway is clearly defined. The hypotheses can then be confirmed by responses to the action taken; therefore, the process requires repeated reassessment.

An alternative model of clinical reasoning is based on recognition of patterns of clinical presentations. The clinician associates the present situation with other experienced cases and adopts a previously successful plan of care. Pattern recognition is thought to be possible only with a well-organised knowledge base and plentiful clinical experience; thus, it is generally only available to very experienced practitioners. Mok and Stevens (2005) suggest that experienced midwives tend to see and use patterns in a whole situation rather than reducing it to discrete

parts. The recognition of the pattern then enables them to make a judgement on the basis of a few critical pieces of information. They see this as what might be referred to as a *midwife's intuition* or *gut feeling*. In the face of unusual cases, when pattern recognition does not happen, the expert reverts to hypothesis testing. Non-expert or inexperienced clinicians tend to use the hypothesis testing model more frequently (Jones 1992). Further, clinical reasoning is an integrated skill for which a well-organised knowledge base is important but additional clinical skills are also required (Schmidt *et al*. 1990). It is the links between knowledge and these other skills which bring about effective thinking and problem solving (Alexander and Judy 1988).

Clinical reasoning in midwifery needs to incorporate both the clear and open involvement of women in decision-making and the need to collaborate with the team providing the service (Raynor *et al*. 2005). Some situations are clearly much more complex than others and the nature of the situation therefore affects the process of decision-making (Cioffi and Markham 1996). Midwives are commonly dealing with very complex and uncertain situations, where decision-making cannot be an exact science and includes many skills that include reflection and clinical reasoning (Cioffi and Markham 1996; Raynor *et al*. 2005; Hunter 2007). Cheyne *et al*. (2006) in their study examining midwives' diagnosis of onset of labour found that there were different aspects of midwives' decision-making in that they made both a diagnostic judgement and a decision about management. They used cues from their impression of the woman's appearance and other physical markers such as uterine contractions and show, as well as level of distress ranked according to perceptions of importance. They found that despite the use of these physical cues, management was not only based on this diagnosis but also powerfully influenced by the pressure from the hospital (to keep the woman at home) or the woman and her family (seeking admission).

There continues to be midwifery discussion about how to work with women in a more 'empowering way' that recognises and supports mutual interdependence (Garrod and Byrom 2007; Porter *et al*. 2007). Porter *et al*. describe a 'new professionalism' constructed in midwifery over the last decade where decision-making can theoretically take place in a negotiation between professional and client, which clearly respects each other's knowledge. However, their qualitative study into midwives' decision-making strategies concluded that midwives do not appear to have the managerial freedom to engage with women in this way, and that the decision-making remains dominated by medical and institutional authoritarianism.

Conclusion

This chapter grows from a period of work begun in 1997 of developing evidence based guidelines to support midwifery-led care in institutionalised hospital UK midwifery (Munro and Spiby 2001, 2003; Spiby and Munro 2001, 2004). This work had to engage with an ongoing struggle of having to use and justify the position of qualitative research when it was clear that understanding practice

from the woman's perspective was fundamental, and that qualitative methodologies were important in collecting this knowledge. This chapter sought to investigate and reflect on some of the issues concerned, to explore the tensions in collecting and interpreting evidence and to offer pointers for future debate and methodological development.

Walsh (2007) has recently drawn attention to a clear disappointment in the uptake of evidence based practice where evidence was originally placed in a triad of research, clinician's experience, and patient's preferences (Sackett *et al*. 1996), but where the latter two seem to have lost status in the evolved dogma. As Walsh (2007) suggests, although evidence based/informed midwifery has matured as a concept, there is a large body of evidence around normal birth that is not influencing current maternity care. We would suggest that there is now a clear place and time for acceptance of this wider body of research, which allows it to be valued and implemented if midwifery practice is going to resist further medicalisation and to develop effectively in response to women's aspirations and needs from their birth experiences. This will require clear collaboration between academics and practice based midwives working together to construct the body of knowledge. There will then need to be systems and professional leadership in place, which would be able to retain the distinctiveness of midwifery knowledge. At times, this will mean working against challenges from other professions and institutions, but will be necessary if the intention is an independent and confident authority for the profession.

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2. *The Development of Evidence Based Midwifery in the Netherlands*

The Journey from Midwifery Knowledge to Midwifery Research to Midwifery Standards of Practice

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Introduction

This chapter describes evidence based midwifery as seen from the Dutch perspective. After an introduction and a discussion of evidence based midwifery, we look at the way midwifery care is organised in the Netherlands, including the current referral system between the levels of care. The background and methodology of midwifery guideline development are then addressed and illustrated with a description of the midwifery standard that addresses anaemia in (first-line) midwifery practice. In the conclusion section, we describe the status of midwifery research in the Netherlands, addressing the main obstacles and challenges it faces.

Evidence, experience and expertise

The diary of Catharina Schrader is an important milestone in the history of Dutch midwifery. Schrader was a midwife who worked in the northern province of Friesland between 1669 and 1745. She kept a diary that documented all the 3060 births she attended. While some births received only a short note in the diary, special cases were written up as case reports (Schrader and Marland 1987). She describes how she was called on 4 August 1712 to help a woman who had been in labour for 2 days.

When I came there, I found no people but her husband standing before the door. The labouring woman was on a wet bundle of straw and was stiff with cold. Water and flooding, it had all flowed out of her. She lay unconscious. I was angry with the man, saying how could people live with a woman vomiting to her death. He said two midwives, also a man-midwife, had already been there with her, who had all left her with the women of the neighbourhood. I said he should immediately call the women of the neighbourhood again, which came to pass and I scolded those people who would give someone up to a miserable death without assistance or pity. Immediately the people got fire from the neighbours and I threw away the wet straw and made her a place to lie, put a cap on her. She lay stark naked. I positioned her, and examined how it was with the case. Found that the child lay with its stomach before the birth canal. It was dead. I turned it and delivered it by the feet in half of a quarter of an hour. The woman got so much strength again, sat up and wanted to kiss my hand. I comforted her, helped her to bed, where I revived her with some drops of warm beer, because there was nothing else to give.

(Case number 1975 of the Memory Book)

This old story illustrates a number of aspects of the work of a midwife. It depicts typical midwifery skills: making the woman comfortable, giving her emotional support and comforting her. It also depicts the midwife's attitude towards the woman: the vision that a woman giving birth is not a case, but a person who deserves care and attention and dignity. The story demonstrates the expertise of a good midwife. Catharina succeeded where others, even nature, had failed; she got the baby out in a few minutes.

It is most unlikely that in those days any study had been carried out looking neither at the influence of wet straw on the progress of labour nor on the influence of wearing a cap. We now know that the woman's sense of well-being is an important factor in determining the critical release of a balance of hormones necessary to facilitate the birth process (de Boer *et al*. 2006). There is compelling evidence for the benefits of 'continuous support for women during childbirth' as well (Hodnett *et al*. 2007). Catharina's practice was rooted in common sense, experience, vision and skilled tradesmanship; traits still considered to be essential in modern-day midwifery as the characteristics that identify the uniqueness of the profession today (Liefhebber *et al*. 2006; NOV 1998). These aspects form the basis for the claim that midwifery differs from other professional groups, including obstetrics, where obstetricians have a more medical–technical approach to the field of obstetrics/midwifery.[1]

Many of the underlying principles and values of midwifery practice as demonstrated by Catherina Schrader now have an evidence base and although she was

[1] Although the Dutch language has two words for midwife (vroedvrouw and verloskundige), there is no word for midwifery. The word 'verloskunde' refers to the broader discipline of obstetrics including midwifery and refers to the work domain of midwives and obstetricians. In this chapter, we have chosen to translate the broader term *verloskunde* into 'obstetrics/midwifery' when used in general, using midwifery only when specifically referring to the work domain of midwives.

not aware of it at the time, in many ways she carried out evidence based practice 'avant la lettre'.

Evidence based medicine

In all health-care professions, the implementation of new evidence has proven to be a tedious and slow process (Grol and Grimshaw 2003). Much resistance to change is seen, especially when the evidence calls for an unsolicited change in practice. In the 1990s, when the term *evidence based medicine* (*EBM*) spread to all areas of medicine, and thus also to obstetrics and midwifery, serious discussions took place. People worried that EBM would limit the care providers in their professional autonomy, would lead to cookbook medicine, would provide insufficient attention to individual variations, could be used as a basis for funding cuts, could be misused for liability claims and that it was imposed from ivory towers (Sackett *et al*. 1996). Some examples of the practical problems of EBM implementation for the care provider are as follows: you must learn new skills and practices; you are not allowed to carry out certain practices; you must discard some of the knowledge previously learned; and you must accept the fact that, in hindsight, you may have carried out suboptimal or even harmful practices. In fact, the implementation of new interventions and practices is generally more easily accepted by care providers and patients than the de-implementation of interventions proven to be ineffective. When one has been used to shaving the perineum or massaging the perineum during the second stage of labour, it is difficult to suddenly have to refrain from carrying out these practices because of new research findings that suggest this should not be done (Peters *et al*. 1996; Munro and Spiby 2000; Basevi and Lavender 2001).

There is also an additional bottleneck to the implementation of EBM in midwifery. According to the midwifery scope of practice, midwives use an individual approach with respect to the women in their care. Is it possible to develop general rules for such individual processes as pregnancy and childbirth? Munro and Spiby (2000) have eloquently said

> *midwifery care recognises that for a woman, labour is not 'just normal' but actually extraordinary.*

Besides this is the fear that the emphasis on evidence will override the specific midwifery characteristics that were demonstrated in Catharina Schrader's case report. The fear is that the foundation of evidence will take preference over pillars of experience and that this will eventually undermine the midwifery profession.

EBM requires a change in attitude: one must be prepared to assess clinical practice in light of scientific developments and to follow those developments critically. This calls for education in the methodology of critical reading and in the interpretation of research results (Woodcock *et al*. 2002; Young *et al*. 2002).

In 1993, the development of EBM led to the expansion of the midwifery programme in the Netherlands (a higher vocational direct-entry programme offered in four schools throughout the country) from a 3-year to a 4-year programme

(Schoon 1992). One of the motives for the expansion of the educational programme was stated as: 'The midwifery profession itself shall critically evaluate first-line obstetrical and midwifery practice and shall play a central role in carrying out scientific research in obstetrics/midwifery, especially first-line midwifery. The preparation for this is based in the pre-service educational programme and therefore the curriculum must contain research methodology and interpretation of scientific research' (Treffers 1992).

Evidence based medicine versus evidence based midwifery

Generally speaking, it appears that the implementation of EBM in professional practice is especially difficult for midwives. This sentiment was reinforced by the initial strong emphasis on a medical–technical and epidemiological approach in EBM as indicated in Walshe's definition:

> *Moving away from decisions based on opinion, past practice and precedent towards making more use of science, research and evidence to guide decision-making.*
>
> *(Walshe et al. 1995; Wickham 1999)*

This definition does not take the significance of expertise in care giving into consideration.

The suggestion that 'real' evidence can only be found through epidemiology, and preferably with randomised controlled trials (RCTs) or meta-analysis, emphasised the medical approach. Besides midwifery-technical practice, 'relational care giving' is an equally important part of the midwife's work (van der Hulst 1993). This term, introduced by the Dutch midwife/sociologist Leonie van der Hulst, is defined as 'the professional and systematic carrying out of directed activities directed towards the creation of a trusting relationship between care provider and care seeker, in which equality, self motivation and open communication are important elements' (van der Hulst 1993). An RCT studying this 'soft' aspect of care provision is more difficult to carry out than one that studies a 'hard' outcome measure such as routine perineal shaving on admission during labour (Basevi and Lavender 2001). It has, however, been accepted more recently that 'soft' aspects can be studied in a trial design. This trend is confirmed by systematic reviews such as *Continuous support during childbirth* (Hodnett *et al*. 2007) and *Psychological interventions for preventing postpartum depression* (Dennis and Creedy 2004), both available in the Cochrane Library.

The definition of EBM has evolved rapidly. In his 1996 article, 'Evidence Based Medicine: what it is and what it isn't', David Sackett, the 'EBM-godfather', defined EBM as

> *the conscious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients.*
>
> *(Sackett et al. 1996)*

In his clarification, he placed emphasis on the integration of expertise and evidence:

> *Good doctors use both individual clinical expertise and the best available external evidence, and neither alone is enough.*
>
> *(Sackett et al. 1996)*

The evolution of the term *EBM* is ongoing. In recent years, there has been increasing recognition of the fact that the view of the client must also be taken into consideration (Goldbeck-Wood 1997; Wickham 1999; Nilsen *et al*. 2006).

In addition to this, there is a growing realisation that, when translating research findings into clinical practice, organisational, social and financial implications could also be considered. In other words, one must consider the applicability of the findings to the practice setting (Burgers *et al*. 2003).

Another important development is the realisation that there is a difference between 'statistical significance' and 'clinical relevance'. The comparison of one intervention to another can result in a statistical difference but if that difference is considered to have little or no clinical consequences, it can be difficult defending the need for the implementation of these results into clinical practice (Visser and Rijnders 2006).

Interestingly enough, because of these realisations, the possibility and need for the inclusion of profession-specific elements into the definition of 'evidence' as an addition to the general principle of EBM have been addressed.

The specific characteristics and values of the midwifery profession are a good starting point for defining evidence based midwifery as a specific area of EBM. By incorporating the vision of professional midwifery services, the 'midwifery values' of the profession and the views of childbearing women, into the evidence found in scientific literature, EBM then becomes a valuable and indispensable concept for midwives, which justifies the use of the term *evidence based midwifery*. This concept still has not taken definite shape, and a generally accepted definition of evidence based midwifery has not yet been developed. This book may contribute towards this development. In light of the continuous evolution of the concept of EBM, it can be assumed that evidence based midwifery will also be a continuously evolving concept.

Levels of care provision and referral within the Dutch obstetrical care system

The health-care system in the Netherlands distinguishes between three levels (or lines) of care provision: first, second and third. First-line care is based outside of hospital institutions and characterised by autonomous practice. Examples of first-line care providers are general practitioners, dentists and midwives. Midwives in the Netherlands follow a 4-year direct-entry educational programme after which they are qualified to practice as independent care

providers in first-line care. They can practice alone or in partnership with other midwives (Table 2.1). In this chapter, the word midwife refers to the independent, self-employed practicing midwife.

In general, second-line care is provided in peripheral hospitals and third-line care in academic hospitals.

First-line care is always the entry point into the health-care system and all insured persons have free access to this. The first-line care provider is seen as the 'gatekeeper' for second- and third-line care and only in cases where a health problem cannot be treated or cured in the first line, will a patient be referred to a higher level of care.

In obstetrics/midwifery, the division in the levels of care described above means that at the beginning of her pregnancy, a woman books with a first-line midwife for care provision during pregnancy, birth and puerperium. (In areas, where no midwifery practice is established, the care is provided by a general practitioner [GP].) When no problems have occurred during the course of pregnancy, the woman can choose between home, birth clinic or hospital birth. In all three scenarios, she will be cared for by her own midwife without an obstetrician becoming involved.

Table 2.1 Index data of Dutch midwives as of 1 January 2008

Total number of practicing midwives	2315	
Number of male midwives	50	(2%)
Midwives in first-line practice	1763	(76%)
Midwives working in hospital	552	(24%)
Age		
• <40	1416	(61%)
• 40–50	538	(23%)
• >50	361	(16%)
Number of first-line midwifery practices	490	
Type of practice		
• one-person practice	78	(16%)
• two-persons practice	94	(19%)
• group practice	318	(65%)
Midwifery density (one first-line midwife per number of women in the age of 15–39)		
• average for the Netherlands	1:1.639	
• maximum (province of Gelderland)	1:1.439	
• minimum (province of Zeeland)	1:2.949	

Source: Hingstman and Kenens (2009).

In the event of complications or the threat of complications, the midwife refers the woman to second-line care. The obstetrician (and in some cases second-line midwife) subsequently assumes care for the woman as long as necessary and can refer the woman back to first-line care if the condition has subsided or has adequately been treated. There are a growing number of midwives who choose, either directly after finishing their programme or after a number of years of first-line practice, to take employment in a hospital (either second- or third-line care). We refer to these as clinically employed midwives, see Table 2.1. Clinically employed midwives often train resident doctors and sometimes carry out research. They see themselves as a bridge between first- and second-line obstetrical care (Waelput and van der Hoff 2005; Liefhebber *et al*. 2006). In the event of very serious complications, the woman may be referred to third-line care (see Figure 2.1 for core data).

The division of tasks and responsibilities implies that one of the most important aspects of midwifery care is risk selection. After all, in the Dutch obstetric/midwifery system, it is the midwife in her/his role as gatekeeper who determines which cases of pregnancy and birth are considered 'normal', remaining under her/his care and supervision, and which cases are not, therefore needing referral to another level of care provision.

The organisation of obstetrics/midwifery care as described requires well-functioning collaboration between the various care professionals (midwives,

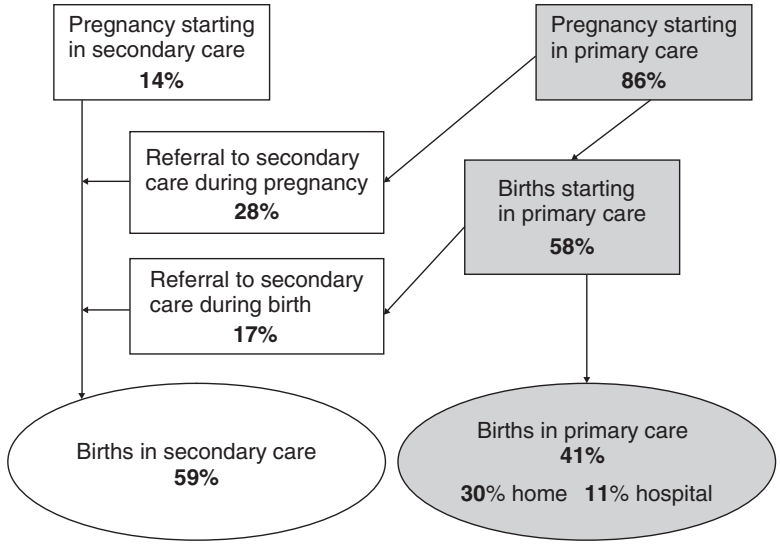

Figure 2.1 Core data: births in the Netherlands ($n = 200{,}586$).
Source: Anthony *et al*. (2005).

obstetricians, GPs, neonatologists, etc.). The *Obstetric Handbook* (*Verloskundig Vademecum*) is a guideline that has been ratified by all the organisations of professionals involved with care provision for mothers and newborns. It contains rules of conduct for collaboration and also agreements pertaining to the quality and efficiency of obstetric care (1999, 2003).

In order to facilitate a streamlined risk selection and referral process, the handbook contains a list of referral indications, the obstetric indication list (VIL). A decision analysis based on the highest possible level of scientific evidence was developed for 103 obstetric and medical indications.

These medical indications are classified into one of four categories that reflect the responsible care provider (Table 2.2).

The basic underlying assumption for the classification procedure is that the childbearing woman must receive optimal care while there is also optimal use of the specific knowledge and skills of the various obstetric care providers.

Standards for first-line midwifery care

The VIL described above has the status of a professional guideline. The list has its limitations as it concentrates mainly on collaboration in obstetrics/midwifery and does not go into detail about the content of care.

Table 2.2 Explanation of the codes in the obstetric indication list, indicating the most appropriate care provider in relation to the indication (2003)

Code	Description	Care provider
A Primary obstetric care	The responsibility for obstetric care in the situation described is with the primary obstetric care provider	Midwife/GP
B Consultation situation	This is a case of evaluation involving both primary and secondary care. Under the item concerned, the individual situation of the pregnant woman will be evaluated and agreements will be made about the responsibility for obstetric care	Depending on agreements
C Secondary obstetric care	This is a situation requiring obstetric care by an obstetrician at secondary level for as long as the disorder continues to exist	Obstetrician
D Transferred primary obstetric care	Obstetric responsibility remains with the primary care provider, but in this situation it is necessary that birth takes place in a hospital in order to avoid possible transport risk during birth	Midwife/GP

Source: Obstetric Working Group of the National Health Insurance Board of the Netherlands (2003).

It is becoming increasingly evident that midwives need explicit criteria to assess the content of the care they provide. One way to achieve this is by drafting standards that are based on evidence in which clear statements are provided about practices that are well founded and can be either recommended or discouraged. A 'standard' has been defined as a compilation of evidence based guidelines, each concerning a different aspect of a central problem or condition. This strong evidence base to the guideline implies that it is a standard for practice. Nevertheless, it is understood that, in providing best practice, the midwife is obliged to take into careful consideration the individual circumstances and preferences of those whom she provides care for. It is also understood that this may lead to a different course of action that may deviate from the standard.

The drafting of standards is actually a part of the process of professionalisation within midwifery. The process of finding reasons for and consciously thinking about one's own practice gives a professional body more insight, knowledge and voice concerning their own area of work and, because of this, more confidence. A good standard results in transparent choices in care, also for the client, and leads to clear policy making. Through standards, the professional group profiles itself not only internally but also externally to clients, insurers and other care providers (Daemers *et al*. 1999).

It was this need for professionalisation and profiling of the midwifery vision that influenced the decision made by the Royal Dutch Organisation of Midwives (KNOV) to begin with the development of KNOV standards. These are called *KNOV standards*, after the Dutch Professional Association of Midwives (KNOV). Initially, these were mono-disciplinary, but the KNOV is currently developing multidisciplinary guidelines and standards as well.

In 1998, the Dutch midwives formulated 'basic principles for carrying out first-line midwifery care' (NOV 1998). One of these reads, 'The midwife will consistently and carefully take into consideration whether or not to perform an obstetric procedure (or let one be performed) and/or whether or not to perform an examination (or let one be performed)'. This assumption was utilised as the basic philosophy during the development of the KNOV standards. It is our opinion that this is also a basic philosophy in the concept of evidence based midwifery.

The methodology used in developing the standards contains six steps. These are summarised in Table 2.3.

An important starting point of the KNOV standards is that they are written 'by midwives for midwives'. The professional field is highly involved in the process of standard development: there is a field consultation regarding prioritisation of possible topics for standard development; the project group is made up of a substantial number of midwives; the translation of evidence into practice is developed in consultation with a working group of practicing midwives and midwife educators; during the commentary round, the concept is presented to a number of midwifery practices. Attention is paid to ensuring an easy-to-read style of writing. The standard is published in three different documents (Table 2.3, final standard). A standard and practice card are sent to all midwifery practices and the scientific evidence is available upon request. The publication of the

Table 2.3 Steps taken in the development of KNOV standards

Preparatory: prioritisation, forming a working group, formulating research questions, determining search terms
Draft standard: structured literature search including allocation of level of evidence to the studies used, writing the draft version, formulating 'other considerations' that will play a role in the conclusions, formulating the conclusions and recommendations
Comments round: present draft version to experts both within and outside of the profession, testing of practical feasibility
Final standard: incorporation of comments, finalising final text into standard with three publication formats: a report with extensive scientific underpinning, the actual standard (a short summary, with concrete recommendations) and a practice card in A-4 format containing a step-by-step plan
Implementation into practice: in principle after 5 years

Source: Daemers *et al*. (1999).

standard is accompanied by articles in the *Dutch Midwifery Journal* (*Tijdschrift voor Verloskundigen*) and an educational trajectory has been developed.

These measures are meant to create optimal and wide support of the standard by midwives.

The standard 'Anaemia in first-line midwifery practice'

An example of a standard that was developed in accordance with the methodology described previously is the KNOV standard 'Anaemia in first-line midwifery practice'. In this section, a summary of the most important results is given.

The standard 'Anaemia in first-line midwifery practice' was published in December 2000 and was the first KNOV standard (Amelink-Verburg *et al*. 2000b, 2000c).[2]

Routine iron supplementation is not standard practice in the Netherlands. Dutch midwives periodically test haemoglobin (Hb) during the antenatal period and prescribe iron medication in cases of diagnosed anaemia (Wildschut *et al*. 1999). Despite this, research shows that 72% of pregnant women in first-line midwifery care reported using iron supplementation even though 20–40% of these women reported having experienced adverse side effects. The anaemia in pregnancy standard was developed to find an evidence base to the prevalence of anaemia as indicated by the reported use of iron medication.

[2] The standard is based on a large amount of literature and it is not possible to cite all the references used. With a few exceptions, we refer to the scientific evidence part of the standard in this section (Amelink-Verburg *et al*. 2000c). The complete reference list of the KNOV standard 'Anaemia' can be obtained from the authors on request.

Physiology or pathology?

In the literature, the term *anaemia* is often used as a synonym for a 'low Hb level' and represents a group of conditions that cannot be compared with one other. A low Hb during pregnancy could indicate iron shortage or other disorders in the production of blood, but it can also be caused by a completely normal physiological adaptation mechanism by the body to pregnancy.

There is no global consensus on the definition of anaemia and Hb level cut-off points vary: the WHO has determined a cut-off point of 6.8 mmol/l (World Health Organisation 1972) while other cut-off points are found in the international literature. In the Netherlands, a range was found from 7.5 to 6.8 mmol/l with 7.0 mmol/l being the most frequently used value (Wildschut *et al*. 1999). In the Netherlands, mmol/l is the measure normally used for haemoglobin level. The formula to convert millimole per litre value to gram per litre is cut-off point (mmol/l)/0.062 (6.8 mmol/l = 110 g/l; 7.5 mmol/l = 120 g/l; 7.0 mmol/l = 112 g/l).

The standard's literature review concentrated on how to differentiate between 'physiological' and 'pathological' anaemia. There is strong evidence to substantiate the phenomenon of haemodilution during pregnancy as a means of meeting the greater need for oxygen during this period. This concept is essential when interpreting the Hb and other blood parameters, and implies that during pregnancy another set of values for blood parameters should be considered as normal.

On the basis of the data from two Dutch study populations of pregnant women (and in compliance with results from previously carried out international studies), one could conclude that there is no one fixed cut-off point for 'low Hb level' during pregnancy but that it is related to the length of the pregnancy (Heringa 1998; Steegers *et al*. 1999). It appeared that the value – until then – most commonly used as the cut-off point in the Netherlands for diagnosing anaemia corresponded with the lowest value of the P50 in the U-shaped curve of Hb levels. Using a cut-off point that would result in half of the pregnant women being considered anaemic implies a high number of false positive cases.

On the basis of these results, it was decided to use pregnancy related cut-off points in the standard. This resulted in considerably lower cut-off points compared to what was being practiced at that time.

The standard further describes the different steps in the screening and diagnostic process, and attention is paid to differential diagnosis and treatment policies.

The standard also addresses the pregnant body's capability to absorb more iron from food in order to build up a 'buffer supply' to compensate the loss of erythrocytes that occurs during birth.

A plasticised job-aid in A-4 format was developed using bright colours to create diagrams of the various steps and cut-off points thereby creating an organised overview for use in the clinical setting (Amelink-Verburg *et al*. 2000a).

The sum of the parts: one plus one is greater than two

The results of the literature, brought together in the standard on 'anaemia', have led to recommendations that would require a number of policy changes in

midwifery practice relating to diagnosis, treatment and nutritional advice regarding anaemia. Despite this, the standard was well received, although midwives mentioned barriers to specific aspects of it, such as alternative iron supplementation and not prescribing iron supplementation if haemoglobin was low but mean corpuscular volume was normal (Fleuren and Wensing 2005; Offerhaus *et al*. 2005).

One can only question how it is possible that such a large gap existed between practice and evidence concerning a subject as seemingly straightforward as anaemia. Noticeably, the standard's recommendations were not the result of new research findings, knowledge or opinions, but quite the reverse. The experts and midwives who evaluated the draft version of the standard were already very much aware of phenomena such as haemodilution and increased iron reabsorption, and yet, the diagnosis, cut-off points, and nutrition and medication advice formulated in the standard are very different from those used at that time by midwives as well as GPs and obstetricians and in laboratories.

There appears to be only one explanation for this gap between knowledge and implementation. Research is often narrow in scope and addresses a specific question or hypothesis. Singular research findings often seem to be left hanging as loose ends that do not sufficiently, or do not at all, lead to the integration of knowledge and practice or translate knowledge into practice. The development of a standard entails an extensive literature review that includes information from a large variety of sources. It brings together all the available information and evidence relating to one subject area, presenting a total overview of what is known and believed at that moment. The information is organised and singular results are woven together creating a strong evidence base that is sufficient to substantiate and facilitate change.

A standard is not only an aid in daily practice and a means of bringing all the information about a certain topic together. Besides this, it has the added value that could be called the *sum of the parts*. Combining the loose ends forms a strong thread: one plus one is greater than two.

The development of this first KNOV standard resulted in another eye opener. Midwives throughout the world share a common vision that pregnancy and birth are, in principle, natural processes that do not need intervention as long as this is not called for, and there is growing movement towards using research, literature and discussion to prove and strengthen this vision.

Just the opposite process took place while writing the standard. The topic 'anaemia in pregnancy' seemed to be very suitable for a first standard because it addressed a common condition; one that was not expected to raise controversies. Initially, some voices were raised against using this topic for the first midwifery standard. It was argued that it would involve primarily technical and biological aspects and it would not address a typical midwifery topic (as for example, failure to progress in labour, the topic of a subsequently published standard). Once all the research findings were reviewed, it appeared that this certainly was not the case. It became increasingly clear that the problem of anaemia in pregnancy was actually not so common in the developed world. It only appeared so because there was not enough understanding of the ability of the body to adapt during pregnancy.

The main conclusion of the Anaemia Standard is that there is no reason to assume that pregnancy by definition leads to an iron deficiency and it must be acknowledged that a healthy and well-fed pregnant body is capable of physiological adaptation to the change. This conclusion was not anticipated at the beginning. On the basis of the literature, however, it is the only conclusion that could be made and one which complies perfectly with the core philosophy of midwifery. The seemingly uninspiring topic 'anaemia' unexpectedly turned out to be a true midwifery subject.

Evidence based midwifery in the Netherlands: bottlenecks and challenges

As previously mentioned, standards can be seen as the implementation of that which is already known about effective care provision and adequate practice. Standards are therefore an appropriate EBM instrument that summarise the current scientific evidence and interprets this in light of clinical practice where it will be implemented.

But there is still a long way to go before midwifery care can be adequately based on scientific evidence, whether or not it is incorporated into official guidelines. There are large knowledge gaps in the field of obstetrics/midwifery. Furthermore, because of its unique system of obstetrics/midwifery care, the Netherlands is confronted with specific bottlenecks and challenges. Some of these will be discussed further.

Not enough relevant research available

The first challenge is the little available research that can be generalised to the specific Dutch system. One can identify several reasons for this.

Firstly, by definition, women in midwifery care in the Netherlands have a low obstetric risk profile. Women with obstetric complications or suspected pathological conditions are referred to second-line care. In contrast, study populations outside of the Netherlands often have a mixed risk profile and there is often also a different birth culture (in terms of use of pain medication, active management, interventions, caesareans and home birth). This implies that research results from studies carried out outside of the Netherlands cannot be generalised to the Dutch situation.

Secondly, following the concepts of epidemiology, the composition of a study group is very important for testing and screening in obstetrics/midwifery. The positive predictive value of a test is in fact dependent on the prevalence of the concerned abnormality in a population. This implies that a test deemed useful in a mixed risk population (second-line care in the example of the Netherlands) cannot in fact be extrapolated to a first-line population in which the abnormality or condition occurs less frequently (Peters *et al*. 1996).

Finally, some aspects of Dutch midwifery cannot be incorporated into studies carried out outside of the Netherlands because they hardly, or totally do not, play a role in other obstetric systems. Some examples of these are home birth and

the system of risk selection, although this last mentioned example is increasingly found on the agenda of free-standing midwifery-led birth centres.

The difficulty with this is that some subjects are not easy to research. The safety of home birth, for example, provides a constant source of controversy. This is also true for the Netherlands despite the multitude of observational and descriptive studies that have been carried out (Buitendijk 1996). The relatively low position of the Netherlands on the PERISTAT perinatal mortality ranking list has rekindled this discussion recently (Zeitlin *et al*. 2008).

An RCT would be the ideal design for this but it is hard to imagine randomisation of women to home or (not medically indicated) hospital birth (Hendrix *et al*. 2009). Women make a motivated choice for the place of birth where they feel most comfortable and this can positively influence the birth process (Kleiverda 1990; Wiegers 1997). The process of randomisation would 'force' some of the women to give birth in a setting where they do not feel at home. Furthermore, in this low-risk group, the number of participating women would have to be very large in order to show a difference in perinatal mortality between the study groups (Buitendijk 1996).

These methodological limitations, however, should not prevent further research into and evaluation of the Dutch system. Innovative methods will need to be found to overcome this.

Development of standards: a long-term process

The second limitation to developing standards in the Netherlands is the very lengthy time frame that accompanies it. Undoubtedly, this phenomenon has been internationally acknowledged by all those who have been involved with standards.

This is primarily caused by the choice to begin at the beginning, carrying out a literature search from the physiological perspective. After all, the need to find scientific evidence for the practice of physiological obstetrics (midwifery practice) in a population of healthy pregnant women was identified. Because of this, it is not possible to quickly put together a number of meta-analyses (even if they are available). One could argue that this process involves 'fundamental research'.

Another explanation is that the KNOV standards contain information on all the various aspects pertaining to the chosen topic. This makes the standard a collection of guidelines. The Anaemia Standard actually contains a guideline on – among others – diagnostics, treatment and nutrition.

The most important reason is that almost by definition, a standard addresses a difficult topic. There is less need to develop a standard to make a certain theme or topic more explicit when there is already sufficient unequivocal evidence to be found or when consensus has already been reached. Those topics considered unclear or those where there is a strong opposing opinion are precisely the ones that were prioritised by midwives as themes for a standard.

The challenges to first-line midwifery research

Carrying out first-line midwifery research involves addressing many bottlenecks that are undoubtedly similar to those encountered outside of the Netherlands.

First, the dramatic cutback in the funding of health research is an important obstacle that evidence based midwifery is facing. Within the limited funding streams in the Netherlands and European subsidy programmes, there is a growing emphasis placed on cost-effectiveness and the savings that this will yield. This is difficult to demonstrate in studies with a low-risk population and is even more difficult when the studies address prevention measures or psycho-social outcomes with long-term effects. One can show a positive birth experience but translating that into terms of health gains, with a costing element, is asking for the impossible.

Organisational aspects may form an obstacle as well. The distinction of levels of care provision is one of the pillars of Dutch midwifery/obstetrics, but it can sometimes be a constraint to the development of the discipline. Research and the resulting evidence in this area need input from both midwifery and obstetrics. An understanding of both pathology and physiology is important and best practice (for the childbearing woman) involves a good understanding of interventions and their utilisation in both levels of care. It is not always the case of shared vision and sometimes it is a case of territory conflict or competition. A prerequisite to a multidisciplinary approach is good collaboration based on mutual respect with a shared vision. This is not always achievable (Kateman and Herschderfer 2005).

Although the decentralised organisation of first-line midwifery results in a large number of advantages for the client, it does have its drawbacks when carrying out research; in order to achieve a large study population, contact must be made and maintained with a substantial number of midwifery practices throughout the country. This demands a good deal of organisation, time and ingenuity on the part of the researcher.

Another challenge is the relatively young research tradition of studies looking at the effectiveness of existing and innovative practices in first-line midwifery (Amelink-Verburg *et al*. 2003). Compared to Great Britain, Dutch midwifery research is in its infancy. Research in the area of obstetrics/midwifery was traditionally developed and carried out by other health-care providers, most often obstetricians. This resulted in defining the discipline midwifery/obstetrics from the obstetrics viewpoint and not from the midwifery viewpoint, and for a long time this fact determined the subjects and scope of research in the field. It was not until the 1990s that research studies were developed and carried out by midwives. The Dutch research institute TNO (Institute for Applied Scientific Research) established a research group that flourished in first-line midwifery. The first Dutch midwifery-led RCT studying active management of the third stage of labour (LENTE study) was developed from within this group. Using data from the National Obstetrics/Midwifery Registration (LVR), first-line midwifery care was monitored and reported on. The course 'methods and techniques for scientific research' developed for midwives has been followed by a large number of midwives throughout the country. The KNOV, until that time primarily an organisation representing the interests of midwives as practitioners, established a division of 'quality and best practice' employing primarily midwives. The first midwife received a PhD in Utrecht in the same period (in 1996) (Iedema-Kuiper 1996).

Currently, 13 years later, seven more midwives have successfully defended their dissertations and earned a PhD and more are in the final stages of their doctoral studies and some have made the first steps on the path towards a PhD. A Masters of Science in midwifery programme was established in 2003 and about 60 midwives have successfully completed this to date. The KNOV has expanded its quality division and has initiated and participated in research studies and has carried out its own research projects. TNO has broadened its scope of work and is carrying out a number of qualitative studies besides epidemiological studies. Recently, several papers were published about the referral system (e.g. Amelink-Verburg *et al*. 2008), home delivery (e.g. de Jonge *et al*. 2009), the experience of women (Rijnders *et al*. 2008a) and the content of midwifery care (e.g. Rijnders *et al*. 2008b). Thus, there has been considerable development in Dutch first-line midwifery in a short period, but there is still a great need for an evidence base for midwifery practice in the Netherlands.

The area of 'physiological obstetrics/midwifery'

Evidence based midwifery research addresses the effectiveness of midwifery practice. However, it not only encompasses research carried out by midwives, but also relates to the entire area of 'physiological obstetrics/midwifery'.

There are various distinguished research streams in evidence based midwifery: for example, the scope of physiology and pathology, determinants and applications that promote the normal process, and the epidemiology of obstetric problems in a low-risk population. Also, a part of the research agenda focuses on health promotion and the long-term health of mothers and children (Nieuwenhuijze *et al*. 2006). Moreover, the quality and effectiveness of the health-care system is an important area of research especially in the Dutch situation.

Especially, in relation to the last subject, the triad 'monitoring, evaluation and feedback' is essential. After all, a robust and accurate registration of care provision is an essential resource for evidence based midwifery as it provides core data of current practice, which can be used for quality improvement programmes and for research agenda setting for the future (Amelink-Verburg *et al*. 1997, 2003). Research within the area of evidence based midwifery does not necessarily need to be carried out by midwives themselves. Both in and outside of the Netherlands, we see research that is of utmost relevance to first-line midwifery being carried out by those other than midwives.

However, it must not be forgotten that the vision behind the design of a study can influence the research questions and subsequent results. Commitment from midwives and a professional and academic tradition in midwifery are very important for evidence based midwifery.

It is up to the professional group to put the concept of evidence based midwifery into practice. In order to do so, Dutch midwifery must define its own scientific domain, formulate the relevant questions within this domain and follow up by compiling a research agenda. Midwives must initiate or carry out mono-disciplinary as well as multidisciplinary research. They must take part in studies

undertaken by other professionals; not only as data suppliers but also in the development phase when formulating research questions and outcome measures and basic principles for a literature search. The example of the Anaemia Standard (section 5) shows that a search carried out with a physiological perspective can result in unexpected findings.

Conclusion

Dutch obstetrics/midwifery is an outstanding example of the conception and development of 'evidence based midwifery'.

The first condition for this is the realisation of the importance of this scientific domain throughout the entire profession including individual midwives, as they are the ones to argue the case to researchers and funding agencies. In this, there is no lack of enthusiasm, but that alone is not sufficient. It will need knowledge, daring and assertiveness. The midwifery educational programmes fulfil a crucial role in this realisation as they shape the midwives of the future in knowledge, as well as in attitude.

The second condition is a funding increase for research in the area of physiological obstetrics/midwifery. Although much progress has been made in the last decade, it has gone too slowly and is still not sufficient. In the Netherlands, most of the midwife researchers have no choice but to carry out their research activities in their own time, combining it with their regular employment or work. Because of this, the research process is slow and it takes more time to achieve results. Many research questions are not incorporated into grant programmes because they do not conform to the strict programme criteria. Midwives should be more involved in defining the criteria of grant programmes.

The third condition is visibility. The midwifery profession is still struggling with gender issues. This is caused by both the gender composition of the profession (98% women) as well as the (still) existing hierarchical relationship with obstetricians. Midwives must stand up and deliver. They should publish and present. They need to manifest their knowledge and quality. This demands a daring that too often is not present, and the midwifery educational programmes could play an important role in this area. It does not stop with the midwifery schools: lifelong learning is essential because 'the person who stops improving, stops excelling' (van Veen 2006).

The overarching condition is the combining of strengths. Only when this is achieved can the other conditions be met and this should have the highest priority. The previously mentioned developments and initiatives are important and promising, but these are still too fragmented and without enough sustenance for Dutch midwifery to 'make a fist'. It is high time for a Centre of Expertise for physiological obstetrics/midwifery, with a dedicated chair position for a professor in evidence based midwifery. In 2009, preparations are being made in three Dutch universities to realise such a chair. Within this dedicated place, groups of researchers could combine expertise and vision and stimulate and motivate each other. It could facilitate structured contact and exchange with similar research

groups from abroad. It could be the place where evidence based midwifery could really develop and take shape. Here applies the same principle of joining together loose ends to make one strong thematic thread; one plus one is greater than two.

In closing

The Dutch midwifery profession still has a long way to go on its journey towards evidence based midwifery. The Dutch midwives can find motivation for this journey in the vision of their profession: the conviction that pregnancy and birth are, in principle, physiological events in which unnecessary interventions must be prevented (Liefhebber *et al*. 2006).

On this journey, Dutch midwives can (and should) look for support from their colleagues abroad. Despite the immense differences in the circumstances of midwives throughout the world, they are all united in the international definition of the midwife as formulated by the International Confederation of Midwives.

> *The midwife is recognised as a responsible and accountable professional who works in partnership with women to give the necessary support, care and advice during pregnancy, labour and the postpartum period, to conduct births on the midwife's own responsibility and to provide care for the newborn and the infant.*
>
> *(ICM Council Meeting 2005)*

This definition unites Dutch midwives with their international colleagues. It unites the midwives of today with the Catharina Schraders from the past and reinforces with evidence based midwifery; it will hopefully be a source of inspiration for the midwives in the future.

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3. *Vaginal Birth After Caesarean (VBAC)*

Is there a Link Between the VBAC Decline since the Second Half of the 1990s and Scientific Studies on the Risks of VBAC?

Hélène Vadeboncoeur

Introduction

VBAC 'prohibited' by some Canadian physicians and hospitals at the beginning of the third millennium

At the beginning of 2002, one of the most important women's associations, AFÉAS (Association feminine d'éducation et d'action sociale), in Quebec received a call from a woman who had a caesarean in the past and was again pregnant. She wanted to know why the hospital in her region, Montérégie, had changed its policy regarding vaginal birth after caesarean (VBAC). The hospital refused her request for a VBAC. During the same period, the group Mouvement pour l'Autonomie dans la Maternitè et pour l'Accouchement Naturel (MAMAN), a group of birth centre users, received an email from a woman who was 39 weeks pregnant and living in another region, Outaouais. She was very upset because her doctor had just refused to let her have a vaginal birth after two caesareans. She stressed the fact that up to now, he had encouraged her and that, in her region, having had two caesareans was not considered a contraindication for having a VBAC.

After having been informed of these situations by both organisations – because in 1989 I had published a book on VBAC (Vadeboncoeur 1989) – I exchanged emails with the Outaouais woman with the purpose of helping her to have a VBAC. Her physician had told her that it was no longer possible to have a VBAC in Canada, and, moreover, that in the future these cases would be accepted only in ultra-specialised hospitals. I encouraged her to find out from other hospitals in her

region what their policy was regarding VBAC and I gave her names of physicians and midwives who could help her, but she had little time to do this as she was 39 weeks pregnant.

Meanwhile, I researched to find out whether and why doctors and hospitals have changed their policies concerning VBAC.

Having been informed that the Canadian Medical Association could have changed its policies, I checked if those of other medical associations had lately been modified. I found out that there had been no changes during recent years. The guidelines of the American College of Obstetricians and Gynecologists (ACOG) had been the same since 1999 and those of the Society of Obstetricians and Gynaecologists of Canada (SOGC) unchanged since 1997.

I also wrote to the Canadian insurance company of physicians about a possible change in its policies on VBAC. They answered that it was not the responsibility of the company to establish norms of practice. One study (Lydon-Rochelle *et al*. 2001), however, could have had an impact on the situation.

I then contacted a doctor whose main practice was in obstetrics. After explaining the situation, I asked her why she thought that in some Quebec regions, VBAC had begun to be 'prohibited'. She mentioned the Lydon-Rochelle study and said that for some time physicians had changed their technique for suturing the uterus and that, as a result, the number of uterine ruptures may have increased. Events such as these can have an impact on medical decisions. She added that legal proceedings have been initiated following VBAC where there had been bad outcomes.

Finally, I was told by the AFÉAS member whom I had previously contacted why the Monterégie hospital now 'prohibited' VBAC: it was because the anaesthetist's home was at 30 minutes from the hospital and not at 18, as stipulated by administrative regulations. The woman was advised to change hospitals but this meant that she would have to travel more than an hour for each prenatal appointment and for the birth to be accommodated elsewhere. The other woman who lived in the Ottawa-Hull region (Outaouais) had reluctantly accepted having another caesarean after her request for a VBAC was refused by many doctors and hospitals in her region. She wrote to me saying:

> *I feel I have been betrayed . . . I have 'chosen' a caesarean, so to speak. I'll be operated at 9 am tomorrow. I am disappointed because I can't have a natural childbirth.*
>
> *(personal communication)*

In search of an explanation for this change

Unfortunately, these are not isolated cases. Women's groups and childbirth activists – such as the MAMAN group and Le Regroupement Naissance-Renaissance in Quebec – have been aware, as I had been, for many years of the fact that physicians more and more frequently refuse a VBAC to women under their care who wish to have one. But this is the first time I heard that hospitals 'prohibit' VBAC.

Historical notes on VBAC: first 'prohibited', then encouraged and now discouraged

In North America, between 1916 and the 1980s, a period of almost 70 years, giving birth vaginally after a caesarean was not encouraged. A caesarean was generally automatically repeated except when the birth took place so fast that there was no time to perform an elective caesarean. But it is not true that VBAC was never authorised in North American hospitals prior to the 1970s and 1980s. VBAC had always been practised in some hospitals, thanks to the presence of physicians who had been trained in Europe and who were used to considering VBAC as normal. Many nurses as well as a physician, Dr Maurice Marinier, ex-chief of the Obstetrics Department of Ste-Jeanne-d'Arc Hospital in Montréal, have confirmed this to me. However, after the 1970s and 1980s, VBAC was prohibited by obstetricians and gynaecologists. It was only following the American and Canadian consensus conferences on caesarean held, respectively, in 1979 and 1985 that hospitals began implementing policies favouring VBAC (Vadeboncoeur 1989).

'Once a caesarean, always a caesarean', misinterpreted?

In fact, the famous aphorism 'Once a caesarean, always a caesarean', pronounced by Dr Edward B. Craigin before his colleagues at a conference in New York in 1916, was not meant to be taken literally. Actually, what followed was that 'Many exceptions occur' (Craigin 1916). This implies that the speaker did not necessarily intend to establish a rule. In fact, as early as 1933, VBACs took place in a New York hospital. Moreover, in the 1950s, studies were published on the subject. Meanwhile, there was a change in the type of uterine incision and as a result VBAC became safer, but as stated in 1966, 'the medical profession as a whole appears profoundly reluctant to accept this' (O'Connell 1966). An increasing number of studies were published in the following decade but in more than 99% of cases, repeat caesareans continued to be performed (Vadeboncoeur 1989).

Women's demands

In the mid-1970s, women's demands for VBAC began to increase, whereas the caesarean rate rose at breathtaking speed. Women's groups were formed. At first, they emphasised the importance of giving information on caesarean births and on ways to prevent them. Later, at the beginning of the 1980s, VBAC support groups appeared. Then, works were published in the United States and Canada by women wishing to alert public opinion on the automatic repetition of caesareans (Cohen and Estner 1983; Koehler 1985; Baptisti Richards 1987).

Governments and medical associations take their positions

Meanwhile and probably as a result of the work of these groups, many official stands were taken in the 1980s in favour of VBAC. For the first time, in North America, it was officially stated that giving birth vaginally after a caesarean is safe and that risks are low if the uterine incision is of the type known as *low transverse*.

The World Health Organization (WHO) explored appropriate technology for birth at a conference held in Brazil in 1985. The following recommendation was then adopted unanimously:

> *There is no evidence that caesarean section is required after a previous caesarean section birth. Vaginal deliveries after a caesarean should normally be encouraged wherever emergency surgical intervention is available.*
>
> *(World Health Organization 1985)*

In the United States, a national consensus conference on caesareans held by the National Institute of Health in 1979 dealt for the first time with VBAC. The ACOG published its first guidelines on the subject in 1982. In Canada, *the National Consensus Conference on Aspects of Caesarean Births* held in 1985 recommended a 'trial of labour' for women who had a caesarean by low transverse incision provided it is a vertex presentation and that there is no absolute indication for a caesarean, for example, a placenta praevia. The first important research carried out over 3 years (1982–1985) had concluded that there was no difference in uterine rupture rate after one or more than one caesarean (Vadeboncoeur 1989). Finally, a study published in 1988 comes to the conclusion that 'having more than one caesarean should not, therefore, prevent a woman from having a vaginal birth subsequently' (Pruett *et al*. 1988). This is probably why the American College of Obstetricians and Gynaecologists reviewed its policies on VBAC the same year and declared that women should be encouraged to give birth vaginally after one or more caesareans. Moreover, the ACOG explicitly stated that no special measures are required for these births, none other than those existing everywhere for any birth, namely, the possibility to resort to a caesarean delivery within a 30-minute period.

The North American consensus conferences on caesarean and the subsequent positions taken by medical associations, in conjunction with women's demands, without doubt contributed to the important rise of the VBAC rate. In Quebec, for example, between 1981 and 1997, it rose from 1.5% in 1981–1982 to 38.5% in 1997–1998 (Figure 3.1).

Fall in VBAC rate

Figure 3.1 shows that from 1997 to 1998, the VBAC rate decreased in Quebec. This phenomenon continues to date. It is consistent with the trend common to Canada and the United States. In fact, the VBAC rate in Canada between 1997–1998 and 2001–2002 has decreased from 35 to 27% (Canadian Institute for Health Information 2004), whereas in the United States it was a mere 9.2% (Rubin 2005) in 2004, having decreased by 67% since 1996 (Hoyert *et al*. 2006) (it reached a peak of 27.4% in 1997; Figure 3.2 [Martin *et al*. 2003]). What has occurred in North America to bring about such a drop in the VBAC rate even though North American medical associations supported this option and an increasing number of pregnant women favoured it? A VBAC rate decline has also been observed in the United Kingdom where, for instance, in Scotland the VBAC rate has gone down from 41 to 36% between 1991 and 1997.

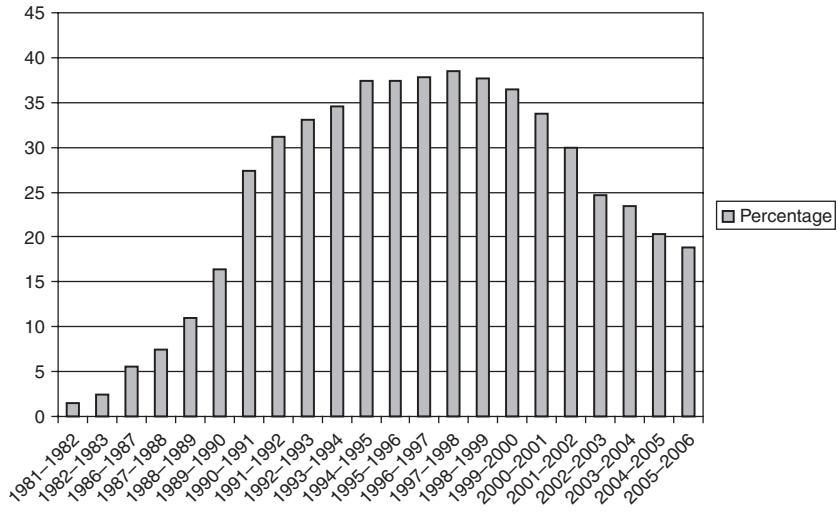
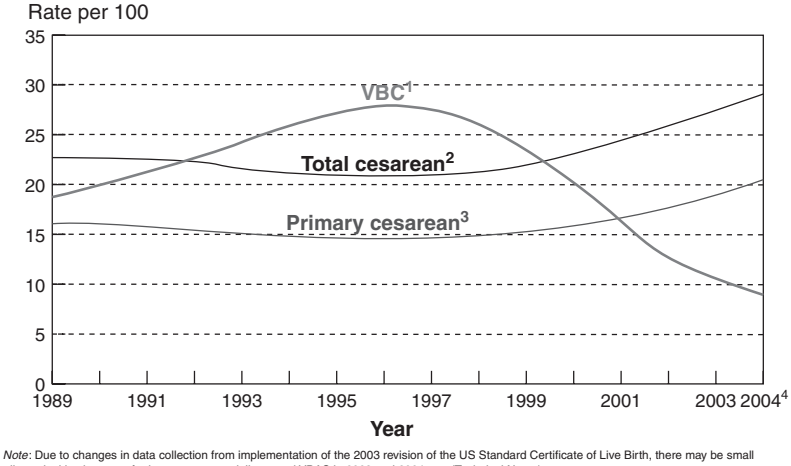


Figure 3.1 Evolution of VBAC rate in Quebec (1981–1982 to 2005–2006).
Source: Ministère de la santé et des services sociaux du Québec, Statistiques - Accouchements et naissances. www.msss.gouv.qc.ca. Reproduced with permission from Martin Renaud.



Note: Due to changes in data collection from implementation of the 2003 revision of the US Standard Certificate of Live Birth, there may be small discontinuities in rates of primary cesarean delivery and VBAC in 2003 and 2004; see 'Technical Notes'.
[1] Number of vaginal births after previous cesarean per 100 live births to women with a previous cesarean delivery.
[2] Percentage of all live births by cesarean delivery.
[3] Number of primary cesare an deliveries per 100 live births to women who have not had a previous cesarean.
[4] Preliminary data.

Figure 3.2 Total and primary cesarean rate and vaginal birth after previous cesarean (VBAC): United States, 1989–2004.
Source: www.vbac.com. Reproduced with permission from Nicette Jukelevics.

Why has there been an important decline of the VBAC rate in the last decade?

VBAC started to be studied scientifically around the beginning of the 1980s: more studies were published in the 1990s, and this trend has not stopped since. The following section explores the contributions of the studies published in the 1980s and 1990s to what happened to VBAC.

Studies during the 1980s and 1990s

Most studies on VBAC are observational studies as opposed to experimental studies, also called *controlled trials*. Scientists consider randomised controlled trials (RCTs) the most valid type of studies. However, as noted by the author of a Cochrane publication, RCTs on VBAC do not exist. In their book on obstetrical practices, Enkin *et al*. (2000) had concluded that 'in the absence of randomised trials, both patient choice and physician choice are involved'. It should be noted that no randomised trials on VBAC existed until recently probably because it was not considered ethically correct to oblige women to experience one or the other option. In Australia, an RCT is presently being done: the ACTOBAC (also called *birth after caesarean*), a collaborative RCT of birth after caesarean. Several hospitals have apparently begun recruiting pregnant women. Groups representing women or consumers have objected, questioning the ethics of randomly assigning healthy women with uncomplicated pregnancies to major surgery. They also question the investigation of babies' health but not of women's health, and wonder if the women recruited are given accurate and reliable information on the pros and cons of both options (http://www.canaustralia.net/?q=node/32). The RCT is conducted by University of Adelaide, North Adelaide, SA, Australia.

Even though many studies on VBAC are retrospective studies (carried out after the events concerned and based on obstetrical files, codified interventions, etc.), a small percentage – usually the more recent ones – are prospective, i.e. they were initiated prior to the events under study. In the latter case, the data collected are more reliable since everything is planned, well defined and conducted in accordance with a uniform procedure. Studies of this type are more difficult to carry out; they take more time and require additional resources: a very large number of births extending over many years or happening in several institutions are needed to obtain the variables to be measured for VBAC, especially the variables pertaining to maternal and perinatal mortality, relatively rare events. On the other hand, with experimental studies such as RCT, it is possible to have more effective control on the validity and reliability of the data obtained.

Unfortunately, there is no consensus on the validity of studies on VBAC. Some believe that the level of scientific evidence of these studies is low or relatively low. Others, like Enkin *et al*. (2000) think that VBAC should be encouraged because there is sufficient evidence of its safety. Outcomes of studies vary, however. Thus, according to the report of the Agency for Healthcare Research and Quality

> *In the best available studies, some outcomes were better in women who had a planned VBAC and some were better in those who had a planned repeat caesarean, whereas data were conflicting or insufficient for other outcomes.*
>
> *(Guise et al. (2003), p. 633)*

Sakala (2003), an expert in the field of scientific outcomes in the United States states that considering this report, every woman with a previous caesarean section should be given all the information she needs to make an enlightened choice and that research on this subject should continue.

On the other hand, the studies conducted to date are not without failings. Many of those quoted hereafter are criticised, even in the scientific reviews in which they are published. Thus, the American writer, Goer (2003), author of *The Thinking Woman's Guide to a Better Birth*, talks of 'Spin Doctoring the Research', in the scientific publication *Birth*. Goer denounces not only the methodology employed for many of these studies – therefore questioning their conclusions – but also claims that the media propagated false outcomes. As a result, she says, not only health professionals but also pregnant women and couples expecting a baby were equally misled. This can be very harmful for the parents' and their baby's welfare. This appears to have happened with a major study on VBAC, conducted by Lydon-Rochelle *et al*. (2001), which is discussed later in this chapter.

Risk of uterine rupture when having a VBAC

Uterine rupture is the opening up of the uterine incision, which can result in complications both for the mother and the baby. The mother must then have an emergency operation to deliver her baby and have her uterus repaired. The pregnancy of every woman who had a prior caesarean section carries this risk, but one point is not as well known, namely that an elective repeat caesarean does not protect against this risk because uterine rupture can take place even before the onset of labour.

Let us return to the risk of uterine rupture. In the first place, its exact rate is not known and the rupture rate varies depending on the definition given to uterine rupture or on the inclusion in the studies of variables such as induction or acceleration of labour. In its latest guidelines regarding VBAC, ACOG (2004) specially mentions this inaccuracy. In scientific circles, some claim that uterine ruptures are more common since the mid-1980s (Lieberman 2001). For example, the large-scale Canadian study of Wen *et al*. (2004) states that the total number of uterine ruptures tripled between 1988 and 2000. This study, however, does not differentiate between a real rupture and a simple dehiscence. Another study, published in 1996 by McMahon *et al*. (1996) concludes that the risk of maternal complications does not depend on the type of delivery (VBAC or repeat caesarean) and that the Apgar score, the admission rate to neonatal intensive care units and perinatal mortality, is similar in both types. In its conclusion, however, the authors note that the most severe maternal complications occurred in the group of women who had a VBAC. However, the study does not make the distinction between women who had a spontaneous birth without stimulation and those whose labour was artificially induced or accelerated.

When we closely examine the scientific literature on the subject, it seems, however, that the 'basic' risk inherent to a VBAC is relatively the same as it was when

literature reviews were conducted for the American and Canadian consensus conferences (*National Consensus Development Conference on Caesarean Birth*, NIH, USA, 1980 and the *National Conference on Aspects of Caesarean Birth*, 1985, McMaster University, Canada). By 'basic' risk, I mean the risk associated with a spontaneous VBAC (without induction of labour). In 1986, for instance, the Canadian consensus conference, after conducting a literature review covering the preceding 25 years, concludes that the risk of a symptomatic separation of the uterine incision when having a VBAC is only 0.22% for women who had a previous caesarean delivery. Many studies since that time have reported similar or relatively low rates, as is seen later.

It appears that the increasing risk of having a VBAC is the result of modifications in obstetrical practices; it does not mean that VBAC itself has become more dangerous. Recent studies tend to confirm this. Let us recall, in the first place, that when this option began to be encouraged at the end of the 1970s and in the beginning of the 1980s, physicians were more careful when prescribing drugs for induction of labour. The positions of medical associations confirm this. During the 1980s and the beginning of the 1990s, it seems that the use of drugs for artificially inducing or accelerating labour gradually increased, a practice that had not been adequately evaluated beforehand. This can also be said of many obstetrical practices or interventions. It is only at the end of the 1990s that studies raised the alarm. In addition, near the end of the 1980s, suture techniques in a caesarean delivery changed but, again, without having been sufficiently evaluated (Enkin and Wilkinson 2001). Until the 1990s, a double-layer suture for closing the uterine incision was usually done but some physicians were beginning to use a single-layer suture in order to shorten operating time. The latter technique was taught to interns in hospitals.

Even though a few studies were published on this topic during the 1980s, they were not very useful because the sampling used was too small, and the data on uterine ruptures were lacking. Recent studies, however, have attempted to evaluate the risks of uterine rupture according to the type of suture. In Canada, for example, Bujold *et al*. (2002a) claim that the single-layer suture multiplies by 4 to 6 times the risk of uterine rupture. Studies on VBAC risks conducted during the 1980s and 1990s, some of which included thousands of women, often confirm the outcomes of former studies on VBAC.

Rupture risk: a risk not only of VBAC but also of every caesarean

Rupture risk, which is often associated with VBAC, is present even in the absence of labour (women have had uterine ruptures before the onset of labour or before their planned repeat caesarean delivery). Thus, Wen *et al*. (2004) mention uterine rupture risk of 0.25% in women who had planned or had a repeat caesarean compared to a 0.65% risk for trial of labour. However, it is quite possible that these events increased with the development of labour-inducing drugs, such as the use of misoprostol, a drug primarily intended for other uses besides obstetrics, where it was introduced without prior evaluation.

What is dangerous and what is not?

According to Beckett and Regan (2001), most of the uterine ruptures mentioned in these studies are in fact dehiscences. Many studies make no difference between rupture and dehiscence, thus making it difficult to interpret the data collected. A dehiscence is not as dangerous as a uterine rupture and does not even need to be repaired. According to Enkin *et al*. (2000), most dehiscences and uterine ruptures are asymptomatic and do not require treatment. It is possible that the risk of uterine rupture is lower than proposed because many studies make no difference between rupture and dehiscence. The other expressions for dehiscence 'window' or 'thinning of the uterine segment' do not mean the same thing as uterine rupture (Flamm 2001b).

What is uterine rupture?

A true uterine rupture therefore involves all the thickness of the uterine segment (all the layers including the serosa). It is symptomatic and needs to be repaired (Lieberman 2001). It is this type of rupture that may be dangerous for the mother and the baby. Part of the baby's body or all of it can come out of the uterus and the baby then lacks oxygen. For the mother, there is a risk of haemorrhage and the possibility of having to undergo a hysterectomy.

It is clearly important to differentiate between a real rupture and dehiscence. Kieser and Baskett (2002) found the rate of real ruptures to be 0.3% and that of dehiscence to be 0.5%. Induction of labour doubled the risk of a real rupture compared to that of dehiscence. In this study, 11 585 women had a prior caesarean delivery and among those who had attempted to have a vaginal birth (4516), it was possible to obtain the rates of real ruptures and of dehiscences.

Incidence of risk

The additional risk of uterine rupture in a woman attempting to have a VBAC compared to one having a repeat caesarean is lower than was previously believed. Studies such as the one conducted in American birth centres (Lieberman *et al*. 2004) reveal a rate varying from 0.2 to 0.6% when labour is not induced or stimulated. Moreover, Chauhan *et al*. (2003), the authors of a systematic literature review published in 2003, state that the studies they reviewed reveal a uterine rupture rate of 0.6%.

The findings of meta-analyses

A meta-analysis is a study that combines the outcomes of controlled trials by regrouping them statistically. This is the highest level of what is considered as 'scientific evidence'. The second level is a systematic review. Only two meta-analyses on VBAC risk were conducted between 1990 and 2000, the first one in 1991 and the second in 2000. The outcomes of these meta-analyses are contradictory. The explanation for this could be that they reflect the change in obstetrical practices. The meta-analysis of Rosen *et al*. (1991), based on studies published between 1982 and 1989, reveals no difference between the two options, repeat caesarean and VBAC, as to negative effects and advantages. The other meta-analysis

(Mozurkewich and Hutton 2000), published in 2000 and covering the 1989–1999 decade, states that there is a very slight increase of uterine rupture risk in a VBAC (compared to a repeat caesarean delivery), i.e. 0.4 vs. 0.2%. It emphasises the fact, however, that a VBAC could reduce maternal morbidity and slightly increase risk of complications for the baby, as compared to a repeat caesarean. Nonetheless, it concludes that one or the other option can be considered reasonable.

Several systematic reviews have also been published, among which that of Guise *et al*. (2004) explicitly mentioned risk of perinatal death in case of uterine rupture. This review reveals that it would require 370 elective caesarean sections to avoid one symptomatic uterine rupture in women who had a previous caesarean section, and that it would require 7142 planned repeat caesarean deliveries to prevent one perinatal death related to uterine rupture.

In the year 2000 and subsequently: two widely debated studies

Since the beginning of the present decade, the VBAC rate has continued to decrease. Studies published in the year 2000 and after may have accentuated this decline. Some suggest that these studies have weak points either in their methodology or in the analysis of outcomes and conclusions. To illustrate this opinion, I shall present two of them.

The Lydon-Rochelle *et al*. study on VBAC risks: are the conclusions misinterpreted?

During summer, in 2001, I was very surprised to hear in the media that a large-scale study on VBAC risks had come to the conclusion that VBAC is dangerous, as announced by Radio-Canada on July 5:

After a caesarean, better avoid a natural birth.

The study in question was conducted by researchers of Washington University (Lydon-Rochelle *et al*. 2001). It revealed, by using two diagnosis codes found in the medical records of more than 20 000 women who had given birth between 1987 and 1996, that 91 of them had experienced a uterine rupture. The rate of uterine ruptures without labour was 0.16%; with trial of labour (spontaneous onset) 0.52%; with induction of labour without prostaglandins 0.77%; and it rose to 2.45% when labour had been induced with prostaglandins. These outcomes on the risk of using drugs for inducing labour confirmed those of studies published not long before the Lydon-Rochelle study (Zelop *et al*. 1999; Ravasia *et al*. 2000; Blanchette *et al*. 2001). The editorial of the *New England Journal of Medicine* accompanying the publication contained very negative remarks concerning VBAC. It seems that the media had retained only these remarks and not the conclusions of the study concerning factors that really increased VBAC risks.

Nevertheless, uterine rupture incidence for attempting a VBAC without induction was similar in this publication to that obtained in other studies to date. Why

then did the media claim that it had been discovered that VBAC was dangerous, when for decades it was well known that there was a slight additional risk with a VBAC compared to a repeat caesarean delivery? This study raised a controversy. A researcher who had conducted many studies on VBAC published in *Birth*, a paper in which he exposed the methodological failings of the study – namely the lack of reliability of the discharge records' codes (Flamm 2001a). As a matter of fact, a publication of the Health Department of the State of Massachusetts had noted the lack of specificity of the code identifying uterine rupture and the lack of consistency when entering this code (Massachusetts Department of Health 2000). Flamm (2001a) points out that it is preferable to check the data furnished by the codes with the obstetrical files of the women. Moreover, women's groups defending women's rights in childbirth and consumers' groups fighting excessive caesarean rates also gave their opinion. This study had shown that it is when labour is induced, especially with prostaglandins, that it is dangerous to have a VBAC. However, the editorial and the media, for their part, had concluded that the risk is inherent to VBAC. Notwithstanding these outcomes on the risks of prostaglandins, 2 years later a survey of Canadian obstetricians–gynaecologists, who had conducted VBACs, revealed that a quarter of them would prescribe prostaglandins to induce labour (Brill *et al*. 2003).

The Lieberman *et al*. study on birth centres

The study of Lieberman *et al*. published in 2004 is a prospective study. It extended over a 10-year period and was conducted in 41 birth centres in the United States. It concerned 1453 women who planned having a VBAC. It revealed a rather low rupture rate, i.e. 0.2% for the group of women considered as low-risk cases and 0.6% for those at higher risk. The latter group included women who had experienced more than one caesarean delivery or women who had given birth after 42 weeks of gestational age. Thus, the general rupture rate obtained was 0.4%, a rate similar to the one in studies published since the beginning of the 1980s and even prior to that. There were six uterine ruptures, three in the first group and three in the second. In the group of women considered as higher risk cases, two babies died and one woman underwent a hysterectomy. In the low-risk group, there were no negative effects for the mothers but three babies died. The deaths had nothing to do with VBAC; they were due to shoulder dystocia and cord prolapse with footling breech birth and placental abruption. In the case of cord prolapse, transfer to hospital took 3 minutes but the hospital took 24 more minutes before performing the caesarean. As for the case of placental abruption, the transfer lasted one hour and it took another hour before the caesarean could take place. Notwithstanding the delays encountered in hospitals and the low incidence of uterine ruptures, the authors of this study came to the conclusion that it is dangerous for a woman to have a VBAC outside a hospital setting. This conclusion was criticised (Johnson and Daviss 2005).

Studies and professional opinion

Even if studies published since the North American consensus conferences have been controversial to a certain extent, and even if they have not taught us anything new on basic VBAC risks, they have confirmed one point, namely, that induction of labour in this situation entails risks. They have also enlarged our knowledge concerning the risk factors of uterine rupture. A Canadian researcher, Dr Emmanuel Bujold, has contributed to this. His studies have shown that there should preferably be a 24-month delay between a caesarean delivery and a subsequent birth, also that the type of uterine suture known as *single-layer suture* can cause more ruptures than a double-layer one and that a very thin uterine segment, as revealed by vaginal ultrasound, is more likely to open up than a thicker segment (Bujold *et al*. 2002b, 2002c; Bujold 2006).

Evolution of the medical associations' positions: more and more cautious?

Research reveals that the opinion of leaders, such as the American College of Gynecologists and the SOGC, had an impact on the practices of health professionals (Kremer *et al*. 2004), for example, in VBAC and repeat caesareans, even if their recommendations are not necessarily based on solid evidence.

However, this does not seem to have been the case concerning VBAC, as the study that made the greatest impact, that of Lydon-Rochelle *et al*., was published in 2001, that is *after* the medical guidelines had become more restrictive in the second half of the 1990s.

As mentioned previously, in 1988, the ACOG recommended a VBAC only when the incision made during the previous caesarean delivery was a low segment transverse incision. The association expressed the opinion that women who had had more than one caesarean should be encouraged to attempt a VBAC. ACOG also specified that in case of problems, the possibility of having a caesarean within a 30-minute delay should be assured, as for any birth. There was no objection to the use, when necessary, of oxytocins and epidural analgesia.

In 1990, the SOGC (Society of Obstetricians and Gynaecologists of Canada (SOGC) 1990) recommended that every hospital with a department of obstetrics be equipped with all that is necessary for patients who wish to attempt a VBAC. In 1997, these guidelines became more explicit and, for the first time, the SOGC made the recommendation that each hospital should be 'capable of providing an emergency caesarean section'. In addition, hospitals were encouraged to draw up policies on VBAC and to make sure that women knew what resources were available in the hospital where they planned to give birth, including availability of a surgical team and of an operating room in case of emergency. SOGC were more careful about induction of labour and the importance of informing women of the lack of scientific evidence on the subject (Society of Obstetricians and Gynaecologists of Canada (SOGC) 1997).

In 1999, ACOG revised the position it had adopted in 1988 on VBAC. Its recommendations became more restrictive:

> *VBAC should be attempted in institutions equipped to respond to emergencies with physicians immediately available to provide emergency care.*
>
> *American College of Obstetricians and Gynecologists (1999)*

The association noted that these recommendations were based on level C evidence, therefore implying that they were not really supported by scientific studies but rather by opinions of experts. While continuing to support the concept of VBAC, ACOG is now more cautious in its approach and puts the focus on individual risk factors.

SOGC did not change its guidelines on VBAC until 2004, when it replaced those of 1999. And the following year, the Society of Obstetricians and Gynaecologists of Canada (SOGC) (2005) modelled its own recommendations on those of ACOG, and suggested that

> *For a safe labour after caesarean section, a woman should deliver in a hospital where a timely caesarean section is possible.*

Only one study, that of Leung *et al*. (1993), addressed the interval from the beginning of prolonged decelerations of the baby's heart rhythm to delivery by caesarean section and achieving a healthy outcome for a baby following uterine rupture. According to this study, the delay should be of 17 minutes, whereas the recommendations of ACOG state that it should not exceed 30 minutes, as for any obstetrical emergency. In Flamm's (2001b) opinion, it is impossible for most hospitals to achieve a 17-minute interval.

Why do medical associations as influential as ACOG and SOGC make recommendations based, as ACOG admits, on opinions of experts instead of on serious studies? Why do they strongly recommend conditions for VBAC that are not deemed necessary for all deliveries, when it is known that complications requiring an emergency operation are present in 2–3% of them. Enkin *et al*. (2000) noted the following:

> *To put these rates in perspective, the probability of requiring an emergency caesarean section for other acute conditions (fetal distress, cord prolapse, or antepartum haemorrhage) in any woman giving birth, is approximately 2.7% or up to 30 times as high as the risk of uterine rupture with a planned vaginal birth after caesarean.*

They conclude that if hospitals are unable to furnish an adequate solution for problems arising during a VBAC, they are equally unable to meet emergencies liable to occur in any delivery.

Dissident voices: the American Academy of Family Physicians (AAFP) and the American College of Nurse-Midwives (ACNM)

One medical association, however, disagreed with ACOG's position adopted in 2004 on the necessity for proceeding with a caesarean delivery immediately after the uterine rupture (which meant having a surgical team present, an unoccupied operating theatre, etc.). This was the American Academy of Family Physicians (AAFP) who, in 2005, after conducting their own literature review, concluded that the recommendations of ACOG were not based on convincing data and that there was no study on the necessity or not of having in place a medical team able to act 'immediately to protect the health of mother and baby'. They recommended that

> *Trial of labor after caesarean should not be restricted only to facilities with available surgical teams present throughout labor since there is no evidence that these additional resources result in improved outcomes.*
>
> *(The American Academy of Family Physicians 2005)*

As to nurse-midwives, the American College of Nurse-Midwives (ACNM) strongly supports the practice of VBAC, stressing the fact that VBAC offers significant benefits to women and their babies and entails fewer risks than a caesarean delivery. According to this association, midwives can help women have a VBAC if appropriate arrangements for medical consultation and emergency care have been made. It also believes that the help of a midwife increases a woman's chances of succeeding with her VBAC and lowers the caesarean rate.

Conclusion. The VBAC decline: over and above clinical risks, medico-legal risks?

> *Currently, a crisis in malpractice rates is decreasing the availability of maternity care providers and raising concerns that patients may have limited options, less access to care, and perhaps be at increased risk for complications.*
>
> *(Agency for Healthcare Research and Quality (AHRQ) 2003)*

We have seen that the debate regarding VBAC was acutely concerned in the past with the risks for the health of mothers and their babies, but that this debate was based on low-level scientific studies or on opinions of experts. We also learned that the most talked-of study on VBAC was published years after the VBAC rate had begun to decline. Other factors have perhaps contributed to this reversal of the situation concerning VBAC in North America.

In the 1990s, cases of uterine rupture were often reported in medical publications. It could be assumed that some physicians, during this period, had witnessed catastrophic uterine ruptures related to inconsiderate use of drugs to

induce labour. These experiences may have frightened health professionals who, from then on, associated VBAC with catastrophic uterine rupture.

This could also be related to a type of risk not often discussed in obstetrics and which has not been a part of the subject matter of studies, namely, medico-legal risks for health professionals. It is possible that clinical risks of VBAC are emphasised for medico-legal reasons, but this is seldom mentioned. However, after the emergence of legal proceedings following VBAC that had negative outcomes, one physician commented on this factor in a publication intended for his colleagues (Phelan 1996). To illustrate this point of view, Dr Zinger, vice-president of ACOG, wrote that

> *Defendant physicians are in a better position from a liability perspective if they were present at the time of the complication.*
>
> *(Zinger 2001)*

The recommendations of ACOG and SOGC on this subject seem to follow the same line of thought. And, in Canada, a physician told me about a conversation he had with a lawyer who, referring to legal proceedings concerning VBAC, said that

> *You have begun to practise VBAC? It's our turn now.*

Since that time, associations preoccupied with the lack of access to VBAC, such as the Northern New England Perinatal Quality Improvement Network, have come to recognise the fact that the huge sums awarded by American courts to families who have experienced 'bad' VBAC have had an important impact on insurance companies. Physicians' insurance premiums have risen astronomically and pressure has been put on hospitals and directors to refuse VBAC for their clientele.

For example, in 2001, a few years after the first legal proceedings involving VBACs took place, a couple whose baby had suffered damages during a VBAC delivery, was awarded USD3.5 million following an out-of-court settlement (Anonymous 2002). The publication *Birth* (Anonymous 2002) reported that an important Des Moines hospital in the state of Iowa had decided to no longer perform VBAC. The spokeswoman of the hospital explained that concerns about both legal liability and patients' health led to this decision, the anaesthetists being unable to assure their presence at an emergency caesarean delivery following uterine rupture.

In Canada, lawsuits linked to VBAC started to happen in the first half of the 1990s (Me Ménard, personal communication, 2007). It is this issue, namely the possible impact of medico-legal factors on obstetrical practices, which is the growing concern of consumers' groups (organisations such as the International Caesarean Awareness Network) fighting excessive caesarean rates and defending women's rights to choose how they want to give birth.

The midwives' organisations are also concerned about VBAC. Individual midwives and associations of midwives have had to decide whether they accept among their clientele women who wish to give birth vaginally after a prior caesarean. In Quebec, VBAC can be practised by midwives. The Quebec College of Midwives has decreed that midwives are qualified to take care of women who have had a prior caesarean, and that a VBAC had more chances of success when a midwife attended it. Many factors have influenced these organisations in their desire to help their members evaluate the risks for themselves if they want to be responsible for a VBAC taking place outside a hospital. Amongst these factors are reversal of opinion on VBAC in medical milieux, fear of litigation on the part of physicians and hospitals involved in VBACs that have had difficult outcomes and the publication of the Lieberman study on VBAC in birth centres. The Seattle Midwifery School recently pointed out that in the controversy concerning VBAC – which deals with the health and security of mothers and their babies – practically no attention is paid to medico-legal risks for health professionals (Hugues 2005).

The fact remains, as noted by consumers' groups in North America, that those who have borne the brunt of this change of attitude in medical circles are the women who have not been able to make the choice of a vaginal birth. In the context of the current available evidence that has been discussed above, I am convinced that it has to essentially be the prerogative of each woman to decide whether she wants to give birth to her baby vaginally or to have a caesarean, without any constraint linked to the place where the baby is born, be it a hospital or a birth centre. As for any medical intervention, the fact that a practitioner has given – or not – adequate information to his or her client seems to make the difference in case of legal proceedings following bad outcomes.

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4. *Midwives and Maternity Services in Greece – Historical Context and Current Challenges*

Olga Arvanitidou

Introduction

This chapter presents a historical perspective of the health system in Greece and the creation of the maternity services. It also seeks to explore the philosophy underpinning the maternity services, the use of practice guidelines and the impact of these factors on midwifery.

Historical perspective

In ancient times, midwives, and not physicians, used to provide consultation and assistance to childbearing women. They supervised deliveries, prescribed medication or recited epodes (psychological therapy) to stimulate or ease the labour, and treated diseases of the uterus. Midwifery was practised by women who had given birth but were no longer of childbearing age. Sometimes medical physicians learned from the midwives about conception, labour and abortion. The Greek word for midwife is 'maia'. Unlike other European languages where two different words are used for 'midwifery' and 'obstetrics', in Greece, any care related to labour is known as *maieutiki* whether it is carried out by doctors or by midwives.

In the Greek–Roman times, when there were no obstetricians, childbearing women were attended by midwives. Many had been through a theoretical and practical basic training and used manuals based on older gynaecological texts.

In Byzantine times, the first 'hospital-hostels' and the first maternity clinics were established, and midwives continued to look after women in labour. After the fall of the Byzantine Empire, there was an important migration of philosophers, men of letters, physicians and painters to the west. In Greece, under the occupation of the Ottomans, medicine developed according to the rules of the Turkish state.

Midwives offered their services, without formal training, merely transferring their knowledge empirically from generation to generation. The midwife established her position as an essential figure in society, embraced by the popular tradition that governed people's lives.

After the creation of the Greek state, a relevant decree officially recognised the midwifery profession in 1834. A state midwifery school was opened on 26 February 1838. The licence to practise the profession was given to the midwives by the Prefect or the Mayor. Two other midwifery schools were later established – one in Athens and one in Thessaloniki. Today, there are two midwifery departments in universities in Greece, running 4-year educational programmes. Graduates must register in the local Associations of Midwives and obtain a licence to practise the profession from the Ministry of Health.

Most of this short historical perspective is documented in the 'Itinerary through the history of obstetrics – gynaecology in Greece' by Papanikolaou (1999).

Development of the National Health System in Greece

Most of the European health systems existing today were shaped in the 1950s upon the development of the welfare state when the major political goal was the universal care of the population.

Such systems included the Beveridge model, used in the United Kingdom and the Scandinavian countries, financed from general taxation; the Bismarckian Social Insurance model of Germany, France and other west European countries, financed from the Social Security contributions; and the Shemasko Bureaucratic Health System model of the former Soviet Union, also financed from general taxation. The participation of the state has therefore been integral to the development of medical technology. The rational use of resources in all contexts has been continuously challenged by the growth of demands on the health services.

During this time, the organisation of the health services in Greece was characterised by the development of medical specialties, each one creating its own sub-system of services with a vertically integrated structure. Emphasis was also placed on other more specialised services, for example, the health of 'the mother and child'.

After World War II and the civil war, Greece took its first but incomplete steps towards the reform of the health services in 1953 (Law 2592) (Tragakes and Polyzos 1998). Measures were put in place to support the introduction of public hospitals and to reform and establish public insurance for workers. However, none of the decentralisation outlined in the legislation was implemented. Greece was clearly lacking in the institutional infrastructure necessary for such changes (World Health Organization 1996).

The next 25 years was a period of lack of development of the public sector, characterised by an institutional stagnancy and insufficient funding. This situation was, to a great extent, the result of the political instability and poor economic indicators in a country whose ideology did not support state investment in public health (Tragakes and Polyzos 1998). In the 1970s and 1980s, a deliberate move was made towards the development of a National Health Service. The declaration made at the *International Conference on Primary Health Care* held in Alma-Ata (1978)

gave a clear direction for the development of primary health care in Greece. The malfunction of the existing system, its lack of effectiveness and the social and geographic inequalities were obvious and health practitioners were demanding better working conditions.

The efforts to reform the system started in 1979 and, in 1983, led to the adoption of Law 1397 and the establishment of the Greek National Health System (Ethniko Systema Ygeias, ESY). The objective of a newly elected government responding to the widespread dissatisfaction with the existing health services was to provide free, equitable and comprehensive health care on a universal basis (Tountas *et al*. 2002; Pappa and Niakas 2006). Implementation started dynamically and brought with it major changes in the health services: the creation of central health councils, reorganisation of the hospitals, 'full and exclusive employment of hospital physicians' and construction and operation of health centres in the region. However, the change stumbled at the creation of a unified umbrella health organisation and the implementation of primary health care in the urban areas. The aim of limiting private sector health care, espoused in 1979, was not realised (Liaropoulos and Kaitelidou 1998). The temporary prohibition on setting up private clinics had directed the private health sector towards the creation of diagnostic centres that increased at a dramatic rate. There was also considerable development of the private sector infrastructure through the construction of new hospitals and the investment in health technology (Liaropoulos and Kaitelidou 1998). Throughout the 1990s, an era of simple management and tight control of government health expenditure prevailed.

It is important to recognise the more general changes that had taken place in Greece and led the country in 1987 from being an 'almost developed' to a 'developed' country according to the UN classification system. Political stability, the development of some sectors of the Greek economy (such as tourism) and the inflow of foreign currency (from the emigrants of the previous 20 years) brought about positive changes in the socio-economic status of the Greek population within a short period.

In 2000, the World Health Organization's ranking of the world's health systems of 199 countries placed Greece in the 14th position. This was considered to be the result of

- the excellent health indicators of the population (a major role being attributed to the Mediterranean diet – and the non-destruction of the environment as Greece never developed heavy industry);
- the effectiveness of the national health system (demonstrated by several indicators, such as infant mortality and life expectancy) (Tountas *et al*. 2002);
- the open access of the population to the health system (e.g. a resident of southern Greece could get health care services in hospitals of northern Greece and vice versa).

There was a clear paradox here. Within a very short period, there were dramatic improvements in the health of the population without any clear investment in health promotion having been made.

Examining the health services provided in Greece in more detail, it is important to recognise some particular features that are not obvious at first glance. These are outlined below.

The Greek health services have always been medico-centric in character and led by individual initiative that is confidently unconstrained by guidelines, supervision and regulation. The philosophical attitude, perception and tradition of the Greek people – with its clear focus on the individual – have contributed to the emergence of an entrepreneurship that has little interest in multidisciplinary collaboration. Traditionally, until the last 3–4 decades, physicians and midwives practised their profession privately. Whilst abiding by the more general legislative provisions of the Greek state, they had direct financial transactions with the users of the health services. The majority of the medical profession still works in this way – independently setting the level of the remuneration for the services they provide.

All the above-mentioned features have nurtured the development of the private sector and configured a system of health care in Greece, markedly different to that of other European countries. Its free market model has more similarities with that of the United States.

During the first years of development of the private sector, physicians of various specialties undertook the economic administration of clinics alongside their clinical work. They themselves set the rates for daily hospitalisation, operations and personal fees. At the same time, they had entered into contracts with the public sector. People insured by public insurance funds were admitted to the private clinics or hospitals even when the major part of their hospital treatment was covered by the insurance funds. This administration model went on from the 1980s to 1990s. Then, large investment groups entered the field of health care and shaped a different landscape. This period experienced the emergence and then strengthening of a significant market oligopoly and the floating of the companies on the stock market (Mossialos *et al*. 2005b; Tountas *et al*. 2005). The administration of these groups then came into the hands of the new owners – businessmen with no direct connection with the field of health care. The majority of the previous owners – the physicians – remained as minority shareholders, only a few of whom had the financial weight to influence the decision-making. The activity of the private centres became concentrated in certain areas. Despite Greece ranking second in Europe in 2000 for the ratio of physicians per head of population, there was a wide geographical variation in the distribution. In the greater Athens area there were 88 doctors per 10 000 people, whilst in other regions (Central Greece and the Aegean Islands) the ratio was less than 30 (Tountas *et al*. 2002).

There appears to be a clear Greek preference for private health care (World Health Organization 1996; Tountas *et al*. 2005). Total health expenses of Greek households currently correspond to 9.4% of the gross domestic product (GDP), 59.1% of which is public expenditure funded from taxation and social insurance contributions (Mossialos *et al*. 2005b). The rest is mainly 'out of pocket' payments reflecting the significant growth in the private sector (Pappa and Niakas 2006; Matsaganis 2001). This increase can be attributed in part to the deficiencies of the public health sector and to the preference of more and more Greeks for the

type of service available in the private system. Although access into the health system is relatively easy, access to a 'complete, uniform and satisfying public health system' has not yet been achieved despite more than 20 years of attempted reform (Davaki and Mossialos 2005; Pappa and Niakas 2006).

In the course of the 6-year period (1995–2001), the market for private health care increased by 115.5%, with private maternity hospitals having the highest increase – 229.8% (Tountas *et al*. 2005). This suggested a good profit margin for investment moves and buyout proposals to be made to the large private maternity clinics.

The maternity services in Greece

These services are provided by obstetricians, midwives, paediatricians and neonatologists. They are provided at primary health care level by the rural health centres in the Greek regions and in the urban areas at the outpatients or emergency departments of the public hospitals and by the private surgeries of the obstetricians.

During the 1950s, 1960s and 1970s, maternity services were organised differently. Most normal pregnancies, childbirth and care in the puerperium were the responsibility of midwives within the health system, particularly in the rural areas where the number of obstetricians was low as demonstrated in Table 4.1. The progressive limitation of the midwife's responsibility during birth is clear.

During the same period, as shown in Table 4.2, one can see the developing dominance of hospital births (public and private) over home births. There appear to be parallels between the demise of the role of the midwife and the demise of home birth.

In recent years, there has been significant reduction in neonatal and perinatal mortality rates in Greece, reaching 8 per 1000 and 4 per 1000, respectively (Geitona *et al*. 2007). Bacula (2005) described a perinatal mortality in 1983 of 23 per 1000, which by 1998, following improvements in maternal and infant health services, was reduced by half, down to 10.5% – with a greater proportional reduction during the first week. More specifically, there was decrease in mortality related to prematurity, perinatal anoxia and birth defects. However, anoxia is still the major cause of death. It has been suggested that the decrease in mortality is due to the regional development of health services and the appropriate staffing of specialised perinatal care centres. It has also been suggested that improvements in mortality

Table 4.1 Number of births according to birth attendant

	1959 (%)	**1969 (%)**	**1979 (%)**	**1993 (%)**
Midwife	35	17	5	0.5
Obstetrician	45	80	94	99.5
Other	20	3	1	0

Source: National Statistic Service of Greece (NSSG) (1994).

Table 4.2 Proportion of births according to the place of delivery (1956–1993)

	Private residence (%)	Hospital (%)
1956	62.5	34.3
1960	51.0	48.6
1965	32.3	67.3
1970	17.0	82.8
1975	10.2	89.7
1980	3.6	96.3
1985	1.4	98.6
1990	0.6	99.3
1991	0.5	99.4
1992	0.6	99.3
1993	0.5	99.4

Source: National Statistic Service of Greece (NSSG) (1994).

are linked to the transfer of responsibilities from the midwives to the obstetricians, although clear evidence is lacking. As discussed above, this may simply reflect the overall improvement in living standards and the development and use of health technologies. It is important to note that most of the technological developments in health care and, in particular, in obstetrics are used and strictly 'guarded' by the medical profession (e.g. use of ultrasounds).

The reasons that probably brought about the current situation in Greece are as follows:

1. The nature of birth, which is viewed as a natural event not a disease, and not requiring significant investment more than the need for good quasi-hotel accommodation.
2. The slow and inadequate development of the public health-care services in rural areas. The wave of 'urban attraction' that has characterised Greek society during recent decades has clearly contributed to the transfer of births to the major urban centres where private maternity clinics were established (Matsaganis 1992).
3. The strong presence of the medical professionals in the provision and commissioning of maternity services (following a large increase in the number of physicians in Greece, particularly obstetricians) and their participation – as compared to other health professionals – in the shaping of the management and legislation governing the services.

4. Under-representation of midwives in the management of maternity services.
5. The demand for the service (the number of births is approximately 100 000 per year).
6. The overall dysfunction of the insurance system – although women who use the public hospitals are covered by public health insurance, many still pay large informal 'extra' sums (Mossialos *et al*. 2005b).
7. The lack of intervention and rational management by the Ministry of Health.
8. The expectation of a 'quick profit' from investment in this sector of health services as compared to other sectors.

Maternity services in Greece, like all other health services, could be evaluated in several ways. These include using measurable figures such as mortality and morbidity, the number of physiological and normal deliveries, economic indicators and measurements of satisfaction of women and their families. Comparison with other institutional frameworks and harmonisation with the general directives and strategies of the World Health Organization and other international markers would also be appropriate. Unfortunately, such evaluations have not yet taken place, even during the period of convergence into the European Union, which provided a clear opportunity.

The management and direction of the maternity services has experienced the following:

1. A continuous weakening of the maternity services provided by the National Health Service.
2. A strengthening of the private sector enabling it to increase activity and consequently the cost of maternity services in pursuit of profit.
3. The transfer of management to investment groups that have no background in health care.
4. The finance of the larger part of services coming directly from women and their families (own expenses 53.2%) with a mere 'symbolic' cover by social insurance.
5. An increased number of caesareans. A recent study of three hospitals in Athens revealed a caesarean section rate of 41.6% in the two public hospitals and 53% in the private hospital (Mossialos *et al*. 2005a).
6. An increased number of labour inductions (often without real indication) by the obstetricians to fit in with work schedules. This is evidenced by the number of deliveries currently taking place on specific weekdays (Mossialos *et al*. 2005a). This particular phenomenon is contrary to the directives of the World Health Organization as it reinforces an interventionist approach, undermines normal physiology and automatically reverses the proportions of low-risk and high-risk pregnancies.
7. Lack of appropriate information-giving to pregnant women to inform their expectations and their rights and those of their child. This could account for their lack of active participation in decision-making around the birth.

The consequences of medicalisation are likely to become more and more visible in the next decades, when half of the Greek women under the age of 30 will have undergone major surgery in the form of caesarean section. All subsequent births are likely to be by caesarean section, as this appears to be the predominant choice of most obstetricians.

The unchallenged authority of the Greek medical profession in general, and the obstetricians–gynaecologists in particular, is reflected in the lack of protocols and the very selective use of guidelines based on evidence. The use of guidelines appears to be according to the individual preference of each physician and on a selective case-by-case basis. The lack of scrutiny and appropriate evaluation of medical practice thus endorses the free will of the physician in his choice of practice. The consent of the woman to an intervention is often obtained at the last minute when her disempowered position is compounded by lack of information and explanation. The reluctance to engage with evidence based practice and guidelines appears to be due to the concern that such a move impedes autonomy.

Amongst the cases of medical errors that have been made public and reached the law courts, very few have apparently resulted in disciplinary action or removal from practice by the country's medical associations.

Funding of maternity services in Greece

Care during the puerperium exists only for pathological cases where the woman contacts either her chosen obstetrician or the clinics of the public hospitals. In the case of a normal puerperium, women are not regularly offered the choice of follow-up care from a midwife or a family physician. This has not been seen as a priority issue and has not been addressed by the Ministry of Health, although midwives and midwifery associations have frequently highlighted its importance.

The financial cost of care during pregnancy and birth has increased dramatically. The total expenditure in a private maternity clinic, including the obstetrician's fees starts from €4000 and can reach €9000. Only a small part of this expenditure is covered by the public insurance funds. Currently, every woman has to pay in cash an amount varying from €90 to €120 per day of hospitalisation (rates set by the Ministry of Health). Table 4.3 shows indications of the cost of maternity services in Greece.

A serious public debate on the huge economic cost, the practice and consequences of obstetrics has never taken place in Greece. The effort made 8 years

Table 4.3 Total cost of maternity services in Greece (€) (1994)

	Public sector	Private sector	Total
Clinic costs	10 595	19 281	29 876
Physician's fees	3 924	18 191	22 115
Total cost	14 519	37 472	51 991

Source: ICAP (1994).

ago by Mr Al. Papadopoulos, Minister of Health at that time (putting forward a special motion in the Parliament regarding the increased number of caesareans in Greece when debating the voting of a draft of law for health) resulted in his resignation from the political foreground as he confronted big private interests and the medical profession. His proposals for increased economic support of the National Health Service were rejected.

The presence and the role of midwives in the maternity services in Greece

As mentioned above, the graduates of the Department of Midwifery practise mainly in the maternity clinics of the National Health Service, the health centres of the primary health care of the National Health Service and the maternity clinics of the private hospitals. There is a minimum of two midwives in each health centre and in the departments of the maternity clinics; the number varies according to the number of beds, the number of deliveries and the general needs of each clinic. The midwives in the tertiary hospitals with maternity units retain their autonomous midwifery departments, while in the secondary hospitals they work in the surgical departments with the nurses. The 'right to practise' the midwifery profession is clear in law. However, there is no clear definition of practice boundaries that would support the promotion of midwives as lead professionals, and not obstetricians, for the care of normal physiological pregnancy and birth. The way the maternity services developed in the National Health Service has left midwives in a difficult position. The parallel development and management of maternity services in the private sector, by the obstetricians–gynecologists, led progressively to the exclusion of the midwives from the responsibility for normal birth. This has come to mean that midwives can practise fully as midwives only in the public sector: the National Health Service, the public hospitals, the health centres and family planning departments or if they are self-employed.

A small number of midwives practise privately, mainly in Athens, in collaboration with obstetricians, dealing with the preparation of the childbearing woman during pregnancy, delivery and puerperium. They do not have responsibility for the birth, but essentially act as helpers of the obstetrician under his/her direction, and sometimes appear unable to challenge the appropriateness of interventions such as induction of labour or the use of epidural analgesia.

In the past four decades, the midwifery profession in Greece has had to confront the following basic challenges:

1. The medicalisation of pregnancy and birth by the obstetricians, which continues unchallenged by the Ministry of Health despite occasional declarations to the contrary
2. An (unsuccessful) attempt in the nursing sector to integrate the midwives and present midwifery as a nursing specialisation
3. The muddled development of maternity services and the disorganisation of the health system, in general, that has shown little interest in defining and safeguarding appropriate professional boundaries and rights

An effective strategy for maternity services in Greece needs to address the following issues:

- The high number of caesarean sections
- The absence of midwives as leaders in the management of maternity care
- The inadequate use of evidence based *protocols* or of general action guidelines, especially in the private sector, which facilitates clear differences in practice and questions clinical effectiveness
- The difficulty of *evaluation* of the provided services due to the almost *non-existence* of organised data and the lack of computerisation in the public maternity hospitals

First steps in evidence based midwifery

The efforts of the midwives in the past 5 years have particularly focused on supporting normal birth in the public hospitals. They now have overall responsibility for 30% of the deliveries and have been successful in avoiding complications and providing greater satisfaction for women. They have been working to develop and implement evidence based midwifery guidelines. They have given great emphasis to parenthood preparation through pre-conceptual and antenatal care. Their significant agenda has been to collaborate effectively with women both individually and through women's organisations.

Collaborative debate

Finally, the different views of the midwives about the management of maternity services were brought together at the last two conferences on Perinatal Medicine and Fetal Medicine (Thessaloniki, 2004 and Kamena Vourla, 2006) after an invitation from the Presidents of the Scientific Society of Perinatal Medicine and the Scientific Society of Fetal Medicine. It was encouraging to see that a small part of the medical professionals (obstetricians–gynaecologists) agreed with both the philosophy and the recognition of a need for change. However, a systematic and continuous exchange of views between midwives and obstetricians has not yet materialised. Such good debate appears to take place only in some local contexts and is dependent on the openness of both sides to better cooperation and improvement of the services. The Ministry of Health has yet to realise its potential as the broker of such discussions.

Attempts to influence at strategic level

The midwives, via their professional groups, are now putting forward the following proposals for a rational management of the maternity services:

1. Reduction of the costs
2. Qualitative and quantitative evaluation of the services

3. Clear distinction between normal physiological and high-risk pregnancies and appropriate consequent management
4. Introduction of evidence based care
5. Use of evidence based criteria for induction of labour
6. Commitment to a reduction of the number of caesarean sections
7. Accurate recording of all the relevant perinatal health-care data by the National Statistical Service of Greece, especially in the private sector
8. Ongoing evaluation of midwives' practice to provide evidence of their role in supporting the physiological process of pregnancy and labour and thus reduce cost in a safe environment for the mother and newborn

It is clear that the most appropriate setting for and future development of midwifery in Greece is closely allied to the public national health system and not to the private sector.

The midwives have also put forward a proposal for the creation of a directorate of perinatal health care in the framework of public health. The co-existence of obstetricians, midwives and paediatricians within this directorate and the consequent exchange of views would contribute, in our opinion, to the improvement of maternity services.

Conclusion

As discussed in this chapter, the practice of midwifery in Greece has many problems and contradictions that need confronting on a daily basis. The basic professional status of the midwife has remained unchanged in the past three decades. I would therefore suggest that midwives have to try very hard to be 'active midwives' in Greece today and to practise according to the international definition of the midwife and the European directive, even though they have high levels of education and the directive is instilled in national legislation. This situation in Greece is an example of how the system, its structure, direction and economic transactions have a huge influence on midwifery, despite midwives' increased knowledge and expertise. Midwives in Greece have the potential to provide invaluable services by holding on to and expanding their professional domain. Their efforts are now being recognised by the women they care for, whose requests for physiological childbirth and greater support with breastfeeding are increasing all the time.

This chapter has described many of the difficulties in Greek midwifery, which work as barriers to evidence based practice, and has explored some of the strategies that are currently being used to re-engage with normal birth and professional autonomy.

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5. *Reflections on Running an Evidence Course*

Denis Walsh

Introduction

In 1998, I was working as a research and development midwife at a large consultant unit in England and had led the development of midwifery-led guidelines for intrapartum care locally. We produced a little booklet that we gave to every midwife. It consisted of ten areas of labour care where we had distilled practice recommendations from the research literature. We sold the booklet at one of our national study days and subsequently were inundated with requests to purchase it. In the next 12 months, over 2000 copies were sold to midwives within the United Kingdom and abroad.

The exercise of developing the guidelines had made me become well aware of how much evidence existed, which was supportive of normal labour and birth. In the late 1990s, the medicalisation of childbirth was a central agenda item for midwives and so much of what midwives saw in practice seemed based on obstetric research around birth interventions. I began to consider disseminating this largely unacknowledged and apparently hidden body of evidence so that midwives would feel supported in their practices around physiological birth.

The new evidence agenda

At the same time, the whole evidence agenda was beginning to impact on health care and, to some extent, maternity care was ahead of the game because of the earlier publication of *Effective Care in Pregnancy and Childbirth Parts 1 & 2* (Chalmers *et al*. 1989). This extensive repository of all the randomised controlled trials (RCTs) and systematic reviews in maternity care set the template for other medical specialties and evolved into the Cochrane Library as we know it today. Alongside the Cochrane Database as it had become known in the early 1990s was published the *Guide to Effective Care in Pregnancy and Birth*, which, in paperback format, summarised the Database's contents in a more accessible style.

By the beginning of the 1990s, midwives' practice had begun to change in line with this new evidence agenda, or its earlier incarnation, research based

practice, in a number of key areas where RCTs have shown no benefit of a routine intervention. Enemas, perineal shaving and liberal episiotomy were good examples. My own observation of practice led me to conclude that other areas of practice, where good evidence existed, were more resistant to change. Among these areas were continuous electronic fetal monitoring (EFM) in low-risk women, supine bed positions for birth, mid-labour artificial rupture of membranes (ARM) and instructed pushing in the second stage of labour. My thinking at the time was that midwives were not aware of the evidence and if they could be made aware, they would adjust their practice.

I began developing presentations in selected areas of labour and birth care with a view to running a one-day event. My approach was chronological, following a labour through from beginning to end. I began with birth environment and examined the evidence on place of birth, including home, birth centres and home from home units (midwifery-led units alongside consultant units). I then reviewed the evidence on models of care, including team midwifery, caseload practice and continuous labour support.

Course structure

Immediately, I had to resolve the problem of robustness and weighting of various research methods. Some topics had systematic reviews already and others had no controlled studies. I decided to use an inclusive approach and accepted Tew (1998) and Campbell and Macfarlane's (1994) work on place of birth, though their arguments were largely based on epidemiological analysis of retrospective data. In addition, I accepted observational studies (Olsen 1997). These research methods are rated lower in traditional evidence hierarchy lists (NHS Centre for Reviews and Dissemination 1996). In my presentation, I elaborated on this to give the studies more appropriate weighting.

The next session covered the onset and progress in the first stage of labour where there were some RCTs covering the latent and active phase of labour. Some of the time, I found no evidence at all supporting particular practices such as repeated vaginal examinations in labour.

Session three was a collection of aspects of normal labour including spontaneous and artificial rupture of membrane and feeding in labour.

I then covered EFM and explored not only its evidence base but also the background context of perinatal morbidity and mortality related to intrapartum events. Covering this area helped me realise that non-contextualised evidence is of far less value than evidence set within a broader milieu. If you did not address the fear of litigation that many midwives felt, then they tended to switch off at the research results because they felt under pressure to continuously monitor.

Pain and labour included relaxation and some complementary therapies but mainly focused on the pharmacological agents.

I then covered the second stage of labour, discussing its length and how pushing was approached, followed by care of the perineum. This session dealt with the

systematic reviews of method of suture repair and the type of suture material and the evidence around episiotomy as well.

The penultimate session was on the third stage of labour, which was the most challenging in examining the value of physiology. Preparation for this session confronted me with the potential role of expert opinion in contributing to the development of guidelines. Michel Odent had written much about the initial post-birth period and the importance of leaving it undisturbed. My own experience at assisting physiological third stages revealed to me how difficult this was when doing active management. Should this acknowledged expert's view count alongside the systematic review favouring active management? Again I discussed the issues while presenting the session to midwives. The third stage of labour RCTs have been critiqued comprehensively, indicating a variety of methodological errors in the application of trial protocol in some of the main studies.

Preparing these sessions confronted me with the complexities of appraising evidence and I will return to this theme later in the chapter.

After doing some speculative advertising to regional units, I received three bookings for my very first evidence course that was conducted over 1 day from 9 AM to 4.30 PM. It was clear after two courses that there was far too much material for 1 day. The midwives' feedback stated they found it too intense and wanted more time for discussion. I amended the programme to 2 days and built in group work after every two taught sessions. I also made handouts of all my overhead slides and the references I used for each midwife.

I was very much encouraged by the feedback from the midwives and really felt that the information was making a difference. This coincided with disillusionment with my research and development post that was being undermined by an obstetric agenda locally, and I decided to leave and take up a university teaching post. The courses went on hold for 12 months until I began a PhD studentship, which allowed me 1 day each week to pursue other employment.

In 2001, I launched the courses more formally with a national advert in a midwifery journal and employed an administrator to assist me. The response was very positive and, within 3 months I had 18 months booking from all over the United Kingdom. By that stage, I had transferred the presentations to PowerPoint and produced a course booklet.

Finally, I added a video at the end of the second day to bring the course to a close, which not only changed the audio-visual medium but also related a story of a woman's birth that summarised many of the issues around the value of physiology and the research that supported it.

Dimensions of evidence

Keeping up-to-date with emerging evidence is a challenge, but an imperative for practising midwives. The Zetoc alert service provided this with the ability to have the contents pages of any journal you choose emailed to you when they were published. From there, you could select relevant articles and obtain abstracts

and, if necessary, full text articles via Athens library passwords. This is exactly the same system I use today. In addition, I got regular updates of the Cochrane Library. Every year now I update the course with completely revamped sessions if necessary.

The early experiences with collating evidence taught me a number of lessons about evidence:

- A variety of research methods can contribute towards understanding what is effective and what is not. Qualitative methods better examine women's perceptions and the acceptability of labour interventions. They also illuminate practice environments and the contextual variations that exist between consultant-led and midwife-led settings.
- Research studies all have strengths and weaknesses, even systematic reviews.
- Contextual awareness impacts profoundly on the appraising of evidence sources, the development of practice recommendations and the application to practice. Large busy consultant units have an imperative to move women through birth suites and therefore are likely to favour more prescriptive guidelines for labour progress regardless of evidence.
- One's underlying beliefs are a powerful filter for judging evidence.
- Clinical expertise, women's perceptions and preferences profoundly affect the utility of evidence.

Because of the complexities involved, I added a session at the end of the course on 'getting evidence into practice' so that these issues could be teased out. My initial impression of the value of the course was that communicating the evidence was only one part of encouraging evidence based practice. The group work gave midwives the opportunity to discuss their practice and whether the changes I was suggesting were achievable. The addition of this final session gave them insight into how change in practice at their units could be approached.

Adaptations and scope

After I had been running the course for 2 years, I took stock to reflect on the feedback I was getting and my own experiences of running it, and reviewed topics in the light of current practice issues.

I found the intensity of the sessions very draining. Delegates wanted to have some feedback from the group sessions and this time was eating into the presentations. Hence, by the second day, time pressures were enormous to get the entire programme completed. In addition, particular sessions such as progress in the first stage of labour always ran over. I revamped the entire programme to make it more manageable and less intense for me.

I cut the taught sessions from five per day to four per day, allowing more time for group work and feedback. I opened the programme up to other childbirth professionals including doulas, childbirth educationalists, obstetricians and maternity care assistants. To date, I have had 3 obstetricians, 10 childbirth educationalists,

6 doulas and 15 maternity care assistants attend. This compares with over 3500 midwives. The courses have been run in England, Wales, Scotland, Northern Ireland, the Republic of Ireland, Sweden, Australia and New Zealand.

Rationale for sessional emphases

Evidence based practice is talked about as if it is a neutral concept in the sense that it is derived from the objective appraisal of research, using agreed criteria. But as Pope (2003) has cogently argued, it can be understood as a social movement with underlying values and intent. Some of these values are rationality over intuition and regulation over a laissez-faire approach. In maternity care, a biomedical model supports rationality and a social model balances this with intuition (Walsh and Newburn 2002). I premised my understanding of evidence on a social model of care and say this explicitly in the introductory session. What flows from this is an acknowledgement that the midwife is lead professional for normal labour and birth and that how the experience of childbirth is interpreted by women is as important as morbidity and mortality rates.

I endorse the two principles that Chalmers *et al*. (1989) enunciated in the late 1980s when the Cochrane Database was first published. His principles can be paraphrased as follows:

- Do not intervene in physiology unless the intervention is known to be more effective than nature.
- Ensure the intervention has no side effects that outweigh benefit.

Chalmers had an acute sensitivity to the ancient Hippocratic injunction – 'First, do no harm', and recognised the dangers of iatrogenesis. The onus is clearly on the person introducing an intervention to prove its superiority over what is happening naturally. In other words, it is a position of humility before the physiology that respects it, believes in it and affirms it unless pathology manifests.

Session 1 – birth environment

How this philosophical approach impacts the subsequent discussion of evidence is illustrated by how the first session on place of birth is addressed. I take as a starting point the need to 'prove' that situating normal birth in hospital needs to be grounded on the superiority of that setting over home or birth centre care, both of which have an implicit social model underpinning them. Of course, there had never been any RCTs on the efficacy of hospital for normal birth, the situating of birth there being based on presumption. Other research methods (observational quantitative and ethnographic qualitative) have cast doubt over hospital birth, suggesting it leads to more childbirth interventions (Hodnett *et al*. 2006) and to less satisfying birth experiences for women (Green *et al*. 1998). When the research on relational aspects of care (continuity of care and continuous support during labour) is taken into consideration, out-of-hospital birth settings score more highly because they are more likely to provide these dimensions.

This session also enabled an engagement with ethnographic research that gave insights into the significance of birth environment context.

My own ethnography of an English Free Standing Birth Centre (FSBC) revealed organisational, architectural and attitudinal features of these environments that help promote physiological birth (Walsh 2006a). The organisational features mostly relate to scale and temporal effects. Neither women nor midwives felt pressured to be processed or to process women through the birth centre, allowing time for the unfolding of labour events. This released the staff from a 'doing to' ethic, and enabled a 'being with' disposition to express itself. This freedom occurred because, with about 300 births per year, it was rare for there to be more than one woman in labour at any one time. As a midwife familiar with the assembly line of large hospital birth, this was a refreshing and insightful experience. I saw midwives practising humane, compassionate midwifery and witnessed some wonderful physiological, non-interventionist births, especially of primigravid women.

The staff at the birth centre had a central focus on honing the birth environment to maximise the potential for normal birth. They were constantly making over the birth room décor. Women really appreciated this ambience, which appeared central to their decisions to choose to give birth there. I believe I was seeing the overt expression of a 'nesting instinct' that, though clearly manifest in mammals, is latent in humans because medically managed birth has suppressed it (Johnston 2004). Women reconceptualised safety as having a psycho-social dimension in a move away from the traditional morbidity/mortality focus. Both the physical build and the staff approach to care contributed to this new perception (Walsh 2006b).

Traditional understanding of evidence does not accommodate these differing influences on clinical practice and the experience of care and are therefore unable to detect the subtle nuances of complex phenomena like childbirth.

Session 2 – rhythms in the first stage of labour

I have also changed the second session of the course on the first stage of labour to reflect my changed thinking around birth physiology. This is now named *first-stage labour rhythms*, rather than 'progress in the first stage of labour'.

The change has come about for two reasons:

- Recent challenges to the orthodoxy of there being an optimum labour length, beyond which pathology ensues
- Recent critiques of the industrial model of birth practised in large maternity units.

Research by Albers *et al*. (1999) and Cesario *et al*. (2004) on low-risk primigravid women indicated that the labours were longer than textbooks of the last 40 years have taught. Aside from this research, the labour progress paradigm has to be viewed in context – it is a phenomenon of the past 50 years and, previous to this, was not a central preoccupation of labour care. Friedman, the first researcher to

measure cervical dilation over time, was not to know that his approach would become a template for decades of narrow focus on the performance of the cervix in labour care.

The most visible manifestation of this on birth suites across the world is the ubiquity of the vaginal examination. This procedure has become normative despite it being one of the most intrusive of all bodily orifice penetrations. As the critique grows regarding its traumatising effects (Stewart 2005) and its poorly researched efficacy (Devane 1996), interest grows in alternative ways of 'sussing out labours'.

The recognition that in large maternity units there is a premium on getting women through the system that does not exist in small-scale settings such as birth centres (Walsh 2006a) has brought a new perspective to the critique of the progress paradigm – shorter labour lengths suit the organisational imperative of the assembly line. This drives the surveillance dynamic of modern labour care as much as the largely spurious rationale of 'failure to progress'.

Drawing on emerging literature arguing for a different temporality in labour care (Simonds 2002) and 'being' rather than 'doing' disposition (Fahy 1998), the labour rhythms approach encourages midwives to embrace physiological variation between women as part of a 'unique normality' (Downe and McCourt 2004). This has important implications for how midwives understand labour pain.

Session 3 – pain and labour

Leap and Anderson (2004) have discussed over the years the merits of shifting from a 'pain relief' model to a 'working with pain' model in relation to labour care. The latter embraces pain as both integral to the physiology of labour and central to a transformative dimension to labour experience. In particular, their approach challenges the epidural culture that midwives are increasingly working with in hospital settings. These ideas are explored in the first half of this session. The remainder of the session covers the evidence base of a number of complementary therapies that are increasingly available as alternatives to pharmacological agents. Among the most exciting developments are new approaches in psychological therapies. Hypnosis and neuro-linguistic programming techniques enable labour to be framed positively and pain to be embraced as facilitatory. They chime with body physiology and appear to empower women through the latent phase of labour (Cyna *et al*. 2004).

Many complementary therapies work on a psychological level, reinforcing positive beliefs in one's body to do birth as well as enhancing the effectiveness of birth companions, and this gives them significant advantage over conventional drugs. In particular, they challenge society's reliance on technology and science to solve the problem of labour pain that many women appear to have internalised by early pregnancy. For midwives committed to the essential normality of labour, who see every day on birth suites ever-increasing medicalisation, the possibility of turning around pessimistic expectations is a timely fillip.

Non-invasive strategies for labour pain maximise the possibility of utilising movement and posture to good effect and this is the focus of the fourth session at the end of the first day.

Session 4 – posture and movement

The broad sweep of evidence is beautifully illustrated by this topic. We have witnessed a medicalisation of birth posture over the past 200 years and a reversal of an age-old principle. This principle is illustrated by archaeological finds from great civilisations of the past (Jarcho 1934) and from anthropological studies of indigenous people of the present (Kitzinger 2000): birth attendants should fit around women, not the reverse. Gupta and Hofmeyr (2006) tell us the invention of the forceps was the seminal event in establishing the bed as indispensable to modern childbirth practice. Along with the forceps came the lithotomy position: a posture that is convenient for the childbirth attendant intent on 'delivering the baby' but wholly unsuitable for the woman.

Quoting as evidence the lessons from history and from non-western cultures is entirely appropriate for this topic. Conventional research studies of the past 30 years supplement these earlier evidence sources but do not supersede them. There is an ancient wisdom here that challenges the arrogant presumptions of professionals performing RCTs who framed their studies as conventional care (semi-recumbent on beds) versus experimental care (freedom of movement). Rarely have modern journals had the humility to say indigenous practices in this area were superior to managed bed birth and that we should have learnt from them. Lavin and McGregor's (1992) paper is the only exception I could find, detailing native North American–Indian practices.

The common sense advantages of gravity and greater room at the pelvic outlet, as well as upright birth postures reduce perineal trauma, the subject of the fifth session.

Session 5 – care of the perineum

Over the 5 years of the course, the changes in episiotomy practice have been the most notable. From the studies of Sleep *et al*. (1984) in the 1980s advocating a restricted rate for normal birth, episiotomy is now viewed as detrimental for the woman and rarely advantageous for the baby. The increasing number of papers linking it to sphincter tear (Richter *et al*. 2002; Williams 2003) is worrying and ironic as it was originally intended to protect against this morbidity. A change in emphasis in this session was made to highlight the birth practices that predispose to pelvic floor morbidities. Forceps and coached pushing are the principal culprits here.

I use this topic to address the context of vaginal birth and the pelvic floor, highlighting Rortveit *et al*.'s (2003) seminal findings on this morbidity over 1950s. They distilled the main risk factors, which in decreasing order of priority were heredity, obesity, smoking, hormone replacement therapy, parity and mode of birth. Their findings challenge the widely held perception that caesarean birth will offer protection to later pelvic floor problems.

Session 6 – rhythms in second stage of labour

The poverty of the biomedical model is illustrated by the second stage of labour. Women's bodies simply do not fit its rigid parameters. Many experience transition,

which is largely ignored by the textbooks, though it is one of the most challenging elements of labour for many women (Woods 2006). The attainment of full dilatation is a dynamic event and may or may not be accompanied by the bearing down reflex, problematising the precise identification of the start of the second stage. In addition, some women have a latent element that lasts a variable length of time (Sampselle *et al*. 2005).

The widespread belief, that a longer second stage compromises the baby, drives time considerations although this association is not supported by research (Roberts 2003). I emphasise in the course that time constraints in second stage can be relaxed if upright posture and spontaneous pushing are adopted. Coached pushing continues to be practised despite consistent evidence that it has no clear advantage over spontaneous pushing (Bosomworth *et al*. 2006).

Session 7 – rhythms in third stage of labour

The third stage of labour remains the most challenging area to hold the view that normal physiology has advantage over medical management. All the RCTs show less blood loss with the routine use of an oxytocin and this, together with the profound impact of oxytocin use in the developing world in lowering third-stage morbidity, has established orthodoxy around its use. In recent years, dissenting voices have questioned the practice in healthy women whose labours have been normal up to this point (Buckley 2005). They quote the Cochrane review itself, which concludes with the key rider that all the studies have been done in hospitals, and therefore may not be generalisable to home or birth centre environments.

A second critique has appeared in relation to early cutting and clamping of the cord, led by Mercer and Skovgaard (2002) who argue for a new understanding of neonatal transition physiology. They suggest that the cord should be left intact to maximise oxygenated blood transfer, necessary for respiratory transition at birth and for neonatal iron stores.

A third critique emphasises the importance of not disturbing the first hour after the birth, encouraging early skin to skin contact and breastfeeding (Odent 2002; Finigan and Davies 2005). These are more problematic when active management is used.

Physiological third stage is such a marginal practice that this session usually generates the most discussion. There is a real issue of skill deficit as many midwives have never seen a physiological stage and many women therefore have no choice in this area. Most consultant units have a policy of active management that puts pressure on women and midwives to comply.

The final session of the course addresses the complex area of changing practice. Over the 5 years I have been running the course, it has become very clear that midwives as a group are disempowered when it comes to practising autonomously. The only environments that are an exception to this are home birth and FSBCs. Midwives working in consultant units constantly defer to medical authority, even in this area of normal birth practice. They also defer to birth suite core staff, especially in regard to timescales for labour, where core staff are under enormous organisational pressure to keep women flowing through birth suites (Perkins 2004). The only exceptions to this in consultant units are in the

tiny number of caseload schemes where midwives tend to align themselves to women, rather than the institution. This is also born out of research in these models (McCourt 1998). In discussing changes in practice, powerful local cultures of medical dominance and organisational imperatives to 'process' women coupled with non-assertive midwife behaviours, have to be addressed before midwives can practise evidence based care.

Conclusion: issues for the future

The evidence paradigm is remarkably resistant to critique as Lambert (2006) discusses. My own view is that research evidence must be married to clinical experience, women's preferences and a social model of care for normal birth care to be optimal. Implicit within this mix is the combination of the science and art of midwifery that gives due recognition to intuition in decision-making. With this in mind, scenario based learning would be a welcome addition to the learning methods currently used in the course. Though the group work has been fundamental to the course programme for many years now, I have never structured this, leaving delegates to 'get on with it' as they see fit. Occasionally, this has resulted in mixed evaluations as its success is very dependent on group dynamics that I do not seek to control. Scenarios would focus the discussion and encourage reflection on practice to be contextualised.

Another frontier I would like to explore is multidisciplinary learning with obstetricians, midwives, doulas, childbirth educators and service users sharing insights together. This would probably require an alteration in scheduling as 2 full days of attendance might not be realistic for all groups. This development is important because philosophical differences in approach to labour care are constantly played out in practice, invariably without their explicit acknowledgement. They usually leave midwives frustrated as the social model of care is marginalised.

One of the most important aspects of the course evaluations over the years has been its thought-provoking impact and the ability to inspire delegates. For some, it reconnects them with original ideals. For others, it prompts a rethink of 'ways of doing'. This possibility of radicalising someone from within, beyond intellectual assent to research findings, is what may really change practice.

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6. *Evidence Based Practice and Problem Based Learning – a Natural Alliance?*

Fiona MacVane Phipps

Introduction: problem based learning and evidence based practice – the connection

The easy answer to the question posed by the title of this chapter is 'yes' or even 'emphatically yes'. As a lecturer who has used problem based learning (PBL) for almost 10 years, and worked to develop it as the core of the midwifery education programme at the University of Bradford, I know of no better way to encourage students to engage with the evidence that supports practice. How this engagement takes place is critical to the learning process. Midwifery and other health-care students have become adept at accessing evidence. Today's students can find almost anything through a few clicks of a mouse. The class of 2006 would be horrified at the hours senior students spent searching through library card catalogues and dusty shelves only a generation ago. However, finding evidence to support an academic argument or a particular clinical decision is not the key to excellence in education. Fostering the ability to question research based evidence, or indeed to challenge the whole assumption of what constitutes evidence, is the key to excellence.

PBL is not a magic bullet that effortlessly transforms students into philosophers or scholars. PBL is a tool, which if used correctly is adept at fostering students' self-confidence, debating skills and the ability to think critically (Rideout and Carpio 2001). In this chapter, I will talk a bit about the Bradford experience and how we have used PBL during the past 10 years of BSc Midwifery education. I will share some guidelines for effective use of PBL and explain the importance of adopting the philosophy and not just the structure of this learning and teaching method. At the same time, I will attempt to explore some of the deeper issues about the nature of evidence and how a radical educational philosophy can help students to understand that questions may be more important than answers.

Problem based learning: an overview

Questions are a good place to begin an overview of PBL. To work well and to provide students with the key skills of independent and group learning, problem identification and problem solving, PBL is totally dependent on questions. In didactic teaching, questions are an afterthought. Good teachers welcome questions as a springboard to lively discussion around a topic. Poor teachers can be irritated or intimidated by questions. However, using traditional teaching methods, both types of teachers have something in common: the timing of questions. Questions invariably follow the delivery of subject matter. PBL disrupts this perceived natural order by placing the questions first (Price 2003).

There are several points in the PBL process where the formulation of questions can make or break the process. However, I will digress briefly to provide an outline of what PBL is for readers who may be unfamiliar with the process. PBL has gained increasing acceptance as a valuable tool in health education over the past four decades. Pioneered by both McMaster University in Ontario and Maastricht University in the Netherlands, PBL is generally viewed as a hypothetico-deductive approach to learning, which encourages the use of problem-solving skills used by health professionals in clinical practice (Boud and Feletti 1997). Initially developed for medical education, PBL is now used across a broad spectrum of educational fields and at many levels.

In PBL, students work together in small groups exploring problems or scenarios relating to situations the students will experience in their working lives. In practical terms, this means that some information may be lacking or the situation may be poorly defined, mimicking the 'messiness' of real-life experience (Eraut 1994). In the Division of Midwifery at Bradford, we call the learning stimulus or problem an enigma to denote a puzzle that can be solved by fitting the right pieces together and to avoid the implication that normal pregnancy and childbirth is somehow problematic (Pansini-Murrell 1996). Other universities use the terms *trigger* or *scenario* as well as the more common *problem* (Cooke and Donovan 1998; Thomas and Cooke 1999).

Once presented with an enigma, students identify issues to be addressed and then generate hypotheses or questions based on their existing knowledge. Learning goals are generated through identifying gaps in existing knowledge and students then go off to research these areas, either individually or in pairs or small groups. In the final stage of the process, students come back into their PBL groups and apply the knowledge they have gained to resolve the original situation. This process is based on the '7 Jumps' used in the Maastricht programme (Haith-Cooper *et al*. 1999). Throughout the process, the group works with a facilitator who observes the students and provides any necessary guidance. While there are almost as many styles of facilitation as there are facilitators, the main divide is between facilitating the process or facilitating the outcome (Haith-Cooper 2003). Process facilitators are more concerned with how the group examines and works with the enigma while outcome facilitators focus on the solution. While it is evident that all educators work within the constraints of delivering a curriculum, I would argue that the process facilitator is most closely allied to the philosophy of PBL.

Problem based learning: the importance of philosophy

This is a subtle but significant point as understanding the philosophy is the key to effectively using PBL. PBL embraces adult educational theory (Knowles *et al*. 1998) and reflects radical educator Friere's (1972) assertions that everyone has unique life experiences that should be acknowledged and utilised by educators. PBL trusts students to set their own learning goals and encourages participants to value their existing knowledge and that of other group members. Students share information to develop a collective understanding (Cooke and Donovan 1998). Skills developed by this process include accessing various sources of information, posing critical questions, developing theoretical explanations and testing explanations in the light of new knowledge (Dolmans *et al*. 1998). While PBL should be exciting for both students and facilitators, it is very easy to undermine the process. This may take the form of sabotage by teachers uncomfortable with relinquishing authority or it may happen quite innocently by tutors who do not trust fully in the group process and are anxious to 'help' their students. This difficulty in relinquishing control is well documented (Wolff and Rideout 2001), but is less likely to happen when facilitators understand and embrace the PBL philosophy and have received adequate training in facilitation.

The role of questions

In returning to the topic of questions in PBL, as mentioned previously, the use of questions is central to the effective use of this learning methodology. The questions that a good facilitator asks (or does not ask) assist students in refining their focus on a topic or in achieving greater depth in their analysis of an enigma. A facilitator who is too directive in his or her questioning can disrupt the process by confining student learning to pre-established learning outcomes. When students are allowed unrestricted engagement with the PBL process they invariably learn more than either they or their facilitator imagined they would. As Lobb *et al*. (2004) comment 'true PBL is an open invitation to the student to explore any area and the ''problem'' is only the launch mechanism. PBL is unfettered in both where it leads and the depth of understanding realized' (p. 449).

The question posed by the problem or enigma is also crucial. While PBL superficially appears to be an easy teaching method, it is far more complex than just throwing some scenarios at a group of students and allowing them to explore these in a somewhat structured format. An enigma must be skilfully constructed to enable students to meet learning outcomes for the course or module as well as to provide scope for their individual or collective learning needs (Drummond-Young and Mohide 2001). These may either go beyond the anticipated outcomes or veer off in a slightly different direction, which is of interest to a particular PBL group. Thus, it is not unusual for separate PBL groups belonging to the same cohort and working on the same enigmas at the same time to develop different learning outcomes or to focus on differing aspects of a topic area. This should not worry the students or their facilitator but should be accepted as an inherent

aspect of such a flexible approach to learning. This aspect of PBL is particularly suited to a spiral curriculum where students have multiple opportunities to revisit topic areas. However, to reassure academic staff considering using PBL, when an enigma is constructed carefully, it is very rare for students to fail to achieve core learning outcomes identified during curriculum development.

An enigma must also engage the students and be relevant to their area of practice. In order to avoid confusion, everything contained in an enigma should have meaning, even to the extent of introducing the type of 'red herring' or confounding information that is reflected in actual clinical practice. That is not to say that an enigma can consist of only a clinical scenario. Some very successful enigmas have used music, pictures, recorded dialogues, brief dramatic skits, film clips, newspaper headlines or even cartoons.

The University of Bradford PBL Curriculum

The Bradford midwifery programme has developed from a fragmented approach where PBL was used only in a limited number of modules to a fully integrated spiral curriculum where PBL groups of eight to ten students work on enigmas, which incorporate aspects of all modules studied during an academic year (standard entry students) or semester (fast track students). The PBL group work is supported by fixed resource sessions (FRS) consisting of short lectures, workshops or directed activities. FRS always follow a PBL session and are designed to support learning rather than to provide easy answers to questions raised during group work.

Another aspect of the Bradford programme, which as far as I know is unique, is the way in which students search for information and present it back to the group. In traditional group work, learning outcomes are divided by topic, with each student being responsible for presenting his or her findings back to the group. In theory, this enables students to share information in a meaningful way. In practice, students often become so anxious about their own presentations that they fail to focus on what their colleagues are saying. Furthermore, this is very important in a discussion about PBL and evidence based practice (EBP): students cannot challenge information or the sources of information presented by another group member. At the University of Bradford, we recognised this problem very early on in our use of PBL and by the time the total PBL curriculum was written, we had started asking students to limit the number of learning outcomes developed from each enigma and to research all outcomes. Initially, students were asked to divide up learning resources so that some students looked at text books, while others accessed databases, surfed the Internet, searched the library shelves or went off to question clinical experts. This strategy helped students become comfortable with all sources of information. Today, as students have become more confident with electronic retrieval of information, facilitators are more relaxed about encouraging students to choose their own sources. However, sometimes it is important to remind students not to limit themselves to electronic sources.

This method of information searching enables students to develop some degree of critical analysis very early on in their education. I have seen my students challenge each other about sources of information as early as 6 weeks into their first year of midwifery education. One student might present something from a textbook as 'fact', only to be challenged about the date of publication by another student who has found more recent information in the current issue of a midwifery or medical journal. A third student might offer a different answer discovered on the Internet only to be asked searching questions about the type of site, the date of posting, the country of origin. This ability to question evidence develops, so by the second year students are asking probing questions about the research on which evidence is based while by the final year they can explore some of the more philosophical issues and begin to question the assumptions underpinning EBP. This progression in the way students use EBP mirrors developments in their ability to implement critical analysis. Of course, this sequence of the development of critical analysis skills varies between individual students but certainly progresses much faster than in a more didactic curriculum. This can be confusing for teachers unused to the process who may have fixed ideas about the relationship between levels of analysis and academic levels. It is not uncommon to hear inexperienced facilitators' question whether students can really be trusted to set their own learning goals and find their own sources of information (Savin-Baden 2000). However, in my experience students gain far more information than could possibly be delivered during a lecture as well as benefit from all the advantages of the PBL process.

Evidence based practice (EBP) in midwifery

EBP has been an explicit component of midwifery practice ever since Jennifer Sleep questioned the use of routine episiotomy (Sleep *et al*. 1984). This study and others opened up the possibility of using research to demonstrate the lack of evidence underpinning the aspects of accepted practice in medical obstetrics. Labour interventions that were routine 20 or 30 years ago such as shaving, enemas, liberal use of episiotomy, routine admission cardiotocography and delivery in the lithotomy position have been largely discontinued, thanks to research demonstrating their inefficiency or harm. Similarly, post-natal and infant care have improved considerably due to the introduction of EBP. Skin-to-skin contact and unrestricted breastfeeding are two examples of practice supported by research. EBP must be valued for its role in reintroducing humanistic and women-centred practice into contemporary midwifery. However, it is important to question how and why so many seemingly rational and intuitive practices were largely lost to western midwifery. A patriarchal medical culture in which midwives were regarded with suspicion was largely responsible for the fact that generations of midwives internalised the medical model of childbirth. Midwifery's parallel knowledge system was devalued as medicine gained ascendancy as the only authoritative knowledge (Jordan 1997). This has been perpetuated by the prevailing educational system with its emphasis on scientific knowledge. Even

today, many midwives exhibit their integration into a techno-medical model when they express unjustified concerns about home birth or equate enhanced status with the ability to undertake skills borrowed from medical obstetrics such as assisting at a caesarean section or performing a forceps delivery (Mander and Flemming 2002). While good arguments can be advanced as to why these skills should become part of midwifery practice, it is important to remember that the ability to watch and wait, supporting a woman through a long difficult labour so that she avoids a forceps birth, is also a high level midwifery skill. The humanistic and holistic aspects of maternity care need to be acknowledged as being of equal importance as the scientific and technological aspects.

Technocracy, humanism and holism

American anthropologist, Davis-Floyd (2001) provides an excellent deconstruction of technocratic, humanistic and holistic paradigms of childbirth, which equates technocratic medicine as objectifying the patient and viewing the body as a machine separated from the mind. In this model, authority lies with the practitioner, science and technology are valued above all else and standardised care includes aggressive intervention with short-term goals. In Davis-Floyd's humanistic model, the body is seen as an organism with close connection to the mind. The relationship between the practitioner and patient is seen as central and care develops from a balanced perspective, which derives knowledge both from science and the humanities. This model acknowledges that the needs of the individual are as important as the needs of the institution. While *holistic* is a term often used by midwives to describe the care they give, Davis-Floyd describes holism as moving beyond humanism to embrace many of the beliefs and practices commonly described as alternative or complementary. In this model, true individualised care is possible as the authority lies with the individual, not the professional and the person is seen as an energy system interlinked with other energy systems. The focus is on long-term health and wholeness rather than on immediate solutions. It is this holistic approach that midwives tap into when trusting intuitive knowledge as a basis for decision-making.

The purpose of midwifery research

It could be argued that the true function of midwifery research should be to confirm the benefits of intuitive and experiential knowledge, which Benner (1984) claimed were the hallmarks of expert practice and to discredit ritualistic interventions associated with the technocratic model that interfere with the natural processes surrounding birth. However, the current hierarchy of evidence places the most value on large-scale randomised control trials (RCTs), thus reinforcing the positivist medical model of care (Swinkels *et al*. 2002). Colyer and Kamath (1999) in a discussion encompassing all health-care research describe this as a research–practice gap created by trying to fit value-free research results into

a patient care environment where individual patient values must be considered. They point out the incongruence of a health service purporting to value patients' views while rejecting the most patient-centred research methodologies.

Midwives and other health-care practitioners are beginning to question the suitability of large population based studies to answer questions about human health-care needs. This is particularly pertinent when discussing pregnancy and childbirth within a humanistic midwifery paradigm that places the pregnant woman at the centre of care. Within this model, the midwife's role is to support the woman in making choices about her pregnancy and birth that are most relevant to her own circumstances and belief system. One of the major problems in trying to match the findings of clinical trials with care requirements expressed within a humanistic or holistic model is that midwifery is characterised by non-intervention, while most research studies require a measurable intervention (Murphy and Fullerton 2001). That is not to say that EBP is not an important facet of midwifery practice and education. As Erikson Owens and Powell Kennedy (2001 p. 143) remark about the use of EBP in midwifery education, 'it can begin to eliminate the disparity between what we do and what the research supports'. However, they too acknowledge that ethical concerns prevent the investigation of some clinical questions in midwifery.

In medical research, a utilitarian approach often justifies the fact that a proportion of research participants will receive a less beneficial intervention so that the maximum number of people may, in the future, be offered the treatment proven statistically to be the most efficacious. Midwives have struggled to gain acceptance as autonomous practitioners of an art that is complementary to, but different from, obstetric medicine (Swinkels *et al*. 2002), and might justifiably have ethical objections to participation in research involving interventions that contradict their own perceptions of best practice gained through observation and experience. Academic departments of midwifery and the pressures of the research assessment exercise may contribute to the problem by encouraging midwives to engage in research, which will attract large-scale funding from government departments or charitable organisations rather than developing projects more closely aligned with a humanistic or holistic approach to practice.

Professor Gary Rolfe (1999) from the University of Wales justifies the mixed feelings midwives might have concerning research in suggesting that findings from large population based studies may not be applicable to individual situations. He cites Feinstein and Horwitz's (1997) assertion that the Cochrane collection promotes research that is actually of little use to practitioners and points out that a rigid adherence to research as the only method of developing midwifery knowledge discredits the vast store of wisdom passed down through all the ages of human existence that enabled women to give birth safely.

Promoting change through education

Although reliance on a single strand of evidence such as the results of a controlled trial may be dangerous because this belies the complexity of health-care

decision-making (Tavakoli *et al*. 2000), midwives within the National Health Service (NHS) must gain the knowledge and skills to use the system while at the same time seeking to change it. The capacity to do this should be an important element in any midwifery education programme, or indeed, any health professional programme. Students must be given the tools to understand and critique research at a high level as well as the opportunity to develop an understanding of the philosophical paradigms underpinning differing research methodologies. PBL is an extremely effective tool to do this as it forces students to engage with research early on in the educational programme and to continue developing their understanding of research throughout their studies. In a PBL curriculum, research is not seen as a separate topic or a skill required during the dissertation stage of the programme, but as something central to the understanding of midwifery. Familiarity enables students to move beyond an unquestioning acceptance of guidelines and protocols derived from research evidence. The first stage is for students to develop an understanding of the concept of EBP, then to develop the tools of research critique and finally to explore the social, economic, political and philosophical factors that shape practice, education and research. By the time students reach the dissertation stage of a PBL based programme, the skills required to access information, to critique information and to use analytical thinking to explore information in a fresh way should be well developed. It is really not surprising that there is such a close relationship between EBP and PBL as both concepts were largely developed at McMaster University (Leung 2002).

A recent example of students' use of these skills is illustrated by a discussion about physiological versus active management of the third stage of labour. In the busy maternity unit where Bradford University students spend most of their labour ward allocation, they rarely have the opportunity to observe physiological management of the third stage of labour. However, some students were sufficiently concerned by a consultant obstetrician's assertion that all women should have active management (of the third stage) based on the NICE (National Institute of Clinical Excellence) guidelines, to engage in lively debate both about this particular guideline and the way in which guidelines are developed. Students' conclusion echoed that of Tavakoli *et al*. (2000) who warned that trying to apply guidelines such as those developed by NICE may be unsatisfactory as recommendations are for an aggregate group of patients based on clinical- or cost-effectiveness and may not be applicable to individual situations.

If reliance on findings from large clinical trials fails to address the need for some form of EBP in midwifery, what can midwives use, and how can we incorporate this into midwifery education? While a holistic model remains the ideal for many midwives who strive to incorporate aspects of holism into their care, its elevation of intuitive information as the primary type of authoritative knowledge is unrealistic within a complex health-care environment. The humanistic model seems a more realistic compromise between holism and technocracy and places value on shared decision-making between client and professional, thereby balancing the needs of the institution and those of the individual (Davis-Floyd 2001).

Several solutions for decision-making in health care have been proposed. Tavakoli *et al*. (2000) recommend the use of decision analysis, which was originally used in the field of economics in the mid-twentieth century and began to be used for clinical decision-making in the 1970s and 1980s. Decision analysis aims to overcome some of the complex problems involved in decision-making by breaking down decisions into more manageable parts and exploring alternate outcomes through the use of a decision tree. Although intended as an aid to rather than a substitute for clinical judgement, it has been criticised for requiring a quite narrow focus, which makes it impossible to consider all individual factors, and for being complex and time consuming. On the more positive side, decision analysis allows a variety of research along with experiential and observational knowledge to be taken into account when making clinical decisions.

Another instrument for decision-making and quality measurement in maternity care was proposed by Murphy and Fullerton (2001) who suggest the concept of optimality. The concept of optimality differs from that of normality. Part of the tension between midwifery and obstetric medicine has always been in defining the parameters of normality. This can be seen as a paradigm clash where the scientific medical approach bases normality on statistical averages or anecdotally acknowledges normality only in retrospect. Midwifery, on the other hand, has traditionally sought to individualise normality to a particular woman's circumstances located in a specific time and place based on the concept of maternal and fetal well-being. In the utilisation of this humanistic model, the midwife may very well embrace a degree of holism, using not only her five senses but also her intuition about the progress of pregnancy or labour. Optimality avoids some of the conflicts inherent in defining normality by looking for the best possible outcome, rather than just attempting to avoid risks. While this has been developed into a tool by American midwives, it is interesting to note that some evidence based areas of optimality such as restricting care in pregnancy to three or fewer care givers were discarded as not congruent with the US model of maternity care (Murphy and Fullerton 2001). Again this perhaps raises more questions than it answers about the way in which research is used to determine optimality and what should be done if aspects of the system in which the tool is being used are themselves identified as sub-optimal. However, basing assessment of maternity care on optimality provides scope for the inclusion of qualitative research, providing information about the psycho-social, emotional and relational aspects of care.

Optimality and problem based learning

The optimality approach to decision-making resonates well with the use of PBL in midwifery or other health professional education. This is particularly true when an integrated rather than a strictly modular approach is taken to the delivery of subject matter. One of the most satisfying aspects of using PBL is the way in which it encourages integration of academic disciplines. Take the example of one

enigma developed for the undergraduate midwifery programme called *Fatima's Dilemma*:

Fatima's dilemma

Fatima is a 26-year-old solicitor who works for a local firm. Fatima's parents wish to arrange a marriage for her to her second cousin who has just graduated from medical school in Pakistan. Fatima has just discovered that she is seven weeks pregnant by her English boyfriend, a lecturer at City University.

This enigma stimulates student learning over a wide range of topics from genetics and embryology to ethics, cultural studies and local demographics as well as raising issues about midwifery roles and responsibilities. Because enigmas such as this one are grounded in the real world they encourage joined-up thinking and promote empathy for clients' diverse concerns and situations. While students might choose to investigate the results of a medical trial that compares methods of first trimester termination of pregnancy they will not find a definitive solution for Fatima's dilemma in statistics. Qualitative findings from phenomenology, ethnography or grounded theory may help students to understand the complex psychological and cultural context of the enigma. Therefore, carefully crafted enigmas help students not only to examine the evidence for practice but also to explore the literature providing insight into the context of practice.

Beyond evidence based practice

While understanding both EBP and the context of practice is central to midwifery education, the lateral thinking engendered by PBL can also help students move beyond these concepts to new levels of thinking, which challenge their existing prejudices and suppositions. Deep questions about research evidence pertaining to issues such as the paradigm within which the research took place or whether or not midwives were involved in the design of the research study become much more important as students develop increasing sophistication in their application of the PBL process. Sara Wickham makes this point about the kind of questions we should be asking of research studies, which are used to develop policies for practice (Wickham 2001). This requires an exploration of philosophical perspectives to understand that in midwifery, as in all walks of life, philosophy underpins decisions and actions. When female students, in particular, begin to explore their own philosophical perspectives, they often begin to value subjectivism and to trust their own internal voices (Belenky *et al*. 1986). This helps students to examine evidence in a new way that values both their own subjective knowledge and that of women who are the focus of care.

While Blomfield and Hardy (2000) suggested that at least in nursing there was still a choice as to whether or not to adopt EBP, in the later half of the first decade of the twenty-first century, practice has moved on and EBP has become a firmly entrenched part of clinical practice in midwifery as well as in other disciplines. Blomfield and Hardy promoted knowledge gained from qualitative

research, which investigates aspects of practice that cannot be quantified as equally important to findings from RCTs, often seen as the 'gold standard' of evidence. Byrne (2004), Professor of Sociology at Durham, goes one step further by asserting that the assumptions supporting RCTs need to be questioned. Far from being the 'gold standard', he suggests that findings from RCTs are only applicable in a public health or population based context and offer little guidance about the best treatment or solution for any individual client. He points out that a common criticism of the RCT, particularly in social contexts, is the difficulty in maintaining control of all significant factors. While many researchers have suggested that if this problem could be overcome, then social research, in particular, would have greater scientific validity. Byrne dismisses this idea as 'delirious' pointing out that in real-life situations it is almost impossible to single out one or a few factors when many complex interactions may have a confounding effect on the research findings. This may be just as true in medical research where confounding factors seem to be discounted or not afforded their real influence in discussing research findings.

Conclusion: back to questions

This brings us neatly back to the importance of questions in a PBL based honours degree. Students require answers about clinical practice, about culture and society and about the basic scientific principles underpinning practice. Traditionally, educational programmes have been designed to provide these answers. PBL instead stimulates self and group learning and a crucial aspect of this is that students must learn to ask the right questions at the right time. That is not to say that students should be corralled into a rigid system where they are forced to adopt a narrow perspective, leaving no scope for other than prescriptive questions. This is not true PBL. Instead, PBL should be a teaching and learning methodology offering great fluidity and opportunities for self-directed learning. However, the complexity of the questions asked by students must develop over the 3 years of an honours degree programme in order to promote true intellectual growth in preparation for the world of work or further study. This can be done through visionary curriculum development, creatively designed enigmas and expert facilitation, which encourage students to grapple with the thorniest problems rather than to take short cuts to cheap knowledge. As I see it, this is the real beauty of PBL, its ability to take students and their facilitators as far as they wish to go on the journey to developing true intellectual discourse. So, going back to the original question posed by this chapter: Is there a natural alliance between PBL and EBP? After the extensive reflection on this topic stimulated through writing this chapter, my answer is still emphatically 'yes'!

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7. *Supervision of Midwifery and Evidence Based Practice*

Carol Paeglis

Introduction

Statutory supervision of midwives is a system unique to midwifery in the United Kingdom. The regulatory body, the Nursing and Midwifery Council (NMC), now strives to achieve consistency in supervision across the four countries of the United Kingdom, but there may be some differences in its execution in different Local Supervising Authority (LSA) areas. This chapter provides an overview of the purpose and organisation of the supervision of midwives and its relationship with National Health Service (NHS) structures and policies, including clinical governance. Examples are drawn from my own professional and geographical area of responsibility in the Yorkshire and Humber LSA. The challenges of using evidence in practice, in the context of the NHS as an example of a 'complex adaptive system' (Plsek 2006, p. 1) and in the provision of contemporary maternity services are explored. The chapter also explores the potential contribution of supervision of midwifery in England to supporting evidence based practice.

Statutory supervision of midwives: purpose, training and organisation

Statutory supervision of midwives has been in place for over 100 years. The history of supervision and its transition from a purely inspectoral to a medically dominated function established in 1902 is well-described elsewhere (Towler and Bramall 1986; Kirkham 1995). The various facets of the role over time included providing support to socially disadvantaged women through supporting access to hospital beds, collecting statistical information and contributing to the teaching of those who were then termed *pupil midwives* (Allison and Kirkham 1996). The role and functions have developed to become supportive, facilitative and developmental, rather than punitive with supervisors providing professional advice, guidance and support (LSA Midwifery Officers National (UK) Forum and the Nursing and Midwifery Council 2008). Supervision is supported by primary government

legislation in the United Kingdom through its inclusion in Acts of Parliament that relate to the regulation of midwives' work and practice. Further detail and guidance are included in secondary legislation: the Midwives Rules and Standards (Winship 1996). This document is intended as a working tool for midwives and supervisors of midwives, and is available in the public domain on the NMC web site (www.nmc-uk.org). In addition to guidance for practice for individual midwives, the Midwives' Rules and Standards also makes stipulations about the statutory supervisory function (Nursing and Midwifery Council 2004). The LSA standard includes the promotion of 'woman-centred, evidence based midwifery practice' (Nursing and Midwifery Council 2004, p. 29).

There are two main aims to supervision of midwifery: (i) protect mothers and babies from unsafe midwifery practice and (ii) support excellence in midwifery practice. The regulatory body for midwifery identifies supervision as the

> *means by which midwives are supported in, and with their practice.*
> *(Nursing and Midwifery Council 2006, p. 3)*

Supervision of midwives was instigated to address the first of the above two aims, but has evolved to embrace the latter (Kirkham 1996). It is suggested that supervision of midwifery may be the reason why a smaller proportion of midwives (compared to nurses) are referred to the statutory body due to allegations of misconduct or incompetence (Nursing and Midwifery Council 2004).

The function of midwifery supervision is operationalised in the United Kingdom through a system that includes the allocation of each midwife to a named supervisor of midwives who, in turn, reports to a Local Supervising Authority Midwifery Officer (LSAMO). Each of these LSAMOs covers a geographical area, which in England is currently coterminous with one of the ten NHS Strategic Health Authority boundaries. I am the LSAMO for the Yorkshire and the Humber, which includes 14 NHS trusts on 24 sites, 194 supervisors of midwives, 2581 midwives (with an average ratio of one supervisor to 13 midwives) who provide care for almost 60 000 women and their babies each year (Yorkshire and the Humber Local Supervising Authority 2008).

The focus of this chapter is on the relationship between the supervision of midwives and evidence based practice for clinical midwives employed in the NHS. However, the supervisory function and responsibility also include midwives who work independently in their own private practice, in higher education institutions, private hospitals or in any other settings. Midwifery supervision is not a managerial function, although the confusion and, sometimes, the unhappy combination when one individual performs both roles have been previously described (Duerden 1996; Kirkham 1996). It is a role that, following selection and training, can be performed by midwives whose substantive employment is in the clinical, managerial, academic or independent fields. Supervisors' responsibilities include leadership in the clinical environment that includes specific mention of research (Nursing and Midwifery Council 2006). Training and subsequent

appointment as a supervisor of midwives follows either nomination by peers or self-nomination. A ballot of clinical midwives takes place in Trusts to ensure that only midwives who have the support and respect of their colleagues go forward to a selection panel that includes an LSAMO. Criteria for selection include personal characteristics, professional and academic ability, skills related to leadership, communication, advocacy on behalf of women and midwives and information retrieval. In the context of supporting evidence based practice, potential supervisors are required to demonstrate an awareness of current midwifery research and an ability to critically evaluate the findings, challenge practice and disseminate knowledge. Successful selection onto the supervisors' preparation programme is followed by accessing modules that are available at first degree and Masters levels. Mentorship of student supervisors is provided by an experienced supervisor of midwives during the programme and followed by competency based assessment, presentations and written assignments that are supported by academic midwifery educators based in universities.

Supervisors of midwives work within a local framework of supervision outlined by an LSAMO; they have a caseload of midwife supervisees and have responsibility to offer an annual review to each supervisee. All midwives have a responsibility to practise care that is evidence based (Nursing and Midwifery Council 2004, 2008), and for those employed in the NHS it is included in their job description (DH 2004a). Most supervisors participate in a rota system that ensures the availability of support and advice to midwives and service users throughout the 24-hour period. The practice of supervisors of midwives is benchmarked against national standards produced by the LSAMOs that include supervisors' involvement in evidence based practice (Local Supervising Authorities of England 2005).

The potential influences on and interactions between midwifery supervision and evidence based practice

Throughout the supervision structure, there are opportunities for positive influences on evidence based midwifery practice. At the level of the individual midwife, this takes the form of a meeting with her named supervisor at least annually to identify and discuss how best to address the midwife's developmental needs. Lack of training in the use of evidence and lack of awareness of research would be among the professional development issues discussed. During this supervisory review, the supervisor can invite the midwife to reflect on her achievements over the past 12 months; this may include leading, implementing, evaluating or identifying an area of practice where evidence suggests that a change in practice may be appropriate. The supervisor may also invite the midwife to reflect on difficulties encountered in practice in the past 12 months and how she could have handled them differently or what she learnt from the experience. Through her knowledge of the midwife, she can assess how best to support a move from her 'comfort zone' in an aspect of practice, to a healthy 'discomfort zone' where she is more likely to change and learn, avoiding the 'panic zone' where she would freeze, not change and not learn (Senge *et al*. 1999).

In addition to supporting the midwife and maintaining her confidentiality, the supervisor can determine through local supervisors' meetings whether the type of difficulties raised in supervisory reviews has been encountered by other supervisors. The exemplar in Box 7.1 demonstrates this.

Box 7.1 Exemplar: correcting the mis-application of evidence in one Trust

A clinical supervisor of midwives discussed with another supervisor her observation of an increasing proportion of second-degree tears not being sutured. They reviewed a number of birth summaries and confirmed a trend. Data were collected as a pre-intervention baseline. A strategy was developed including an educational event that comprised (i) the principles of evidence based practice; (ii) evidence related to suturing, indicating that muscles will not heal unless sutured, but that skin will and (iii) the use of a demonstration aid to describe the physiology. The supervisory team was requested to reinforce the correct research messages to their supervisees at all appropriate fora. All midwives were invited to attend. The educational event was held, and the data collected post intervention indicated a change in practice in line with the evidence (Paeglis, unpublished).

The team of supervisors in a Trust can also raise an issue at the regional level through discussion with their LSAMO who can network with other Trusts or other LSAs to determine the extent of a problem. This potential for networking is demonstrated in Figure 7.1.

Other clinical barriers to evidence based practice, including perceived lack of authority and the belief that the benefits of changing practice will be minimal, can

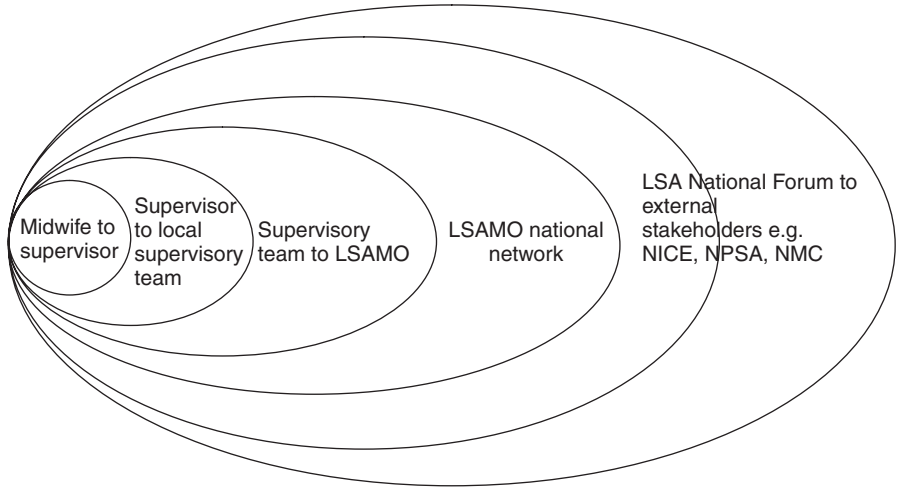

Figure 7.1 The potential for networking through supervision.

also be addressed at supervisory reviews. Supervisors can then act as advocates, where needed, but in other situations can nurture their colleagues who are endeavouring to engage in the implementation of evidence into practice.

Supervisors work at a team level to support midwives' practice by identifying training needs; by considering how best to implement the evidence contained in clinical guidelines, through the use of documentation that supports midwifery practice and by developing their own action plans in response to published reports such as major mortality and morbidity studies. An example is provided in Box 7.2. Across the Yorkshire and the Humber LSAs, behaviours congruent with a learning organisation are advocated throughout the supervisory network, including teams solving the problem and sharing those experiences. This is encouraged at LSA meetings and conferences where interaction and adult learning, and reflection and problem based learning are utilised. One example of this was the discussion of the use of the *modified early warning scores* (MEWS) in midwifery services; this score identifies acutely ill patients whose clinical condition is deteriorating. Following a case review, one NHS Trust introduced MEWS into their service, as recommended within the triennial maternal mortality report. At that stage, only one other Trust in the LSA had implemented that recommendation. A presentation at the educational event by a nurse consultant in critical care explained the research behind MEWS and incorporated the Trust's learning during her presentation. Following the presentation, supervisors from other Trusts were able to consider the issues related to implementing MEWS and to take those back to their own maternity service. This offers an example of the opportunity for networking within a learning environment reported by Johnson (1996).

Box 7.2 Case history example of the supportive, collaborative and educational roles of supervisors of midwives in implementing evidence based practice

A local research project identified increased referrals of women during maternity episodes of care to mental health services following the development and publication of evidence based guidelines and multidisciplinary training for midwives, health visitors and general practitioners (GPs). The practice initiative was led by a supervisor of midwives by virtue of her substantive post, but the skills, knowledge, experience and networking within supervision enhanced the initiative by involving supervisees in feeding back their views and key issues within the safe environment of the supervisory relationship. The project was disseminated across the supervisory network beyond the original Trust and by supervisors reiterating the guidelines through supervisory reviews and within the clinical areas in day-to-day practice (Paeglis 2005).

Supervisors of midwives also have involvement at local and national levels in the implementation of national government maternity care policy, for example, in England, the *National Service Framework for Children, Young People and Maternity* (DH 2004b) and *Maternity Matters* (DH 2007); these incorporate evidence, where it is available, expert opinion and the views of service users.

Local supervising authority audit visits

As previously described, individual midwives have the opportunity to meet annually with their supervisor of midwives to reflect on their practice. In turn, the practice of supervisors and midwives is audited against national standards by the LSAMO, usually in conjunction with an audit team, during the LSA's annual audit visits to Trusts. Although annual visits by the LSAMO have been included within the structure of midwifery supervision for some time, in 2004, the LSAMOs in England collectively produced national standards for supervision and midwifery practice based on the NMC Midwives Rules and Standards. The audit report is supplied to the Board of the NHS Trust that provides maternity services and commissioners of maternity services and is available to the public. The implementation of evidence based practice is a major feature of the Yorkshire and the Humber LSA audits, which involves gathering evidence from midwives, supervisors, student midwives, midwifery lecturers, women and their partners. An audit working group comprising supervisors from all areas within the region annually review key national documents to determine benchmarks for particular aspects of service for inclusion in the audit tool. Such national documents will include the reports of Confidential Enquiries and Clinical Guidelines, Technology Appraisals and Public Health Guidance published by the National Institute for Health and Clinical Excellence.

While considering the evidence underpinning the benchmarked topics included in the LSA audit tool, for example, the best clinical management to avoid kernicterus in a neonate, supervisors may potentially be exposed to new evidence, which will lead them to discuss the sources within their own Trusts; the audit tool thus acts as a further stimulus to achieving evidence based practice. Supervisors also have the opportunity to be part of the audit team visiting another Trust. This experience exposes them to another organisation's approach to implementing or developing evidence based practice; it supports dialogue and exposes all parties involved in the audit visit to reflection and constructive challenge on these issues.

The LSAMO's responsibilities related to evidence based practice include promoting the role of the midwife as the expert in normal maternity care based on evidence and monitoring standards of midwifery care through audit, quality improvement programmes and clinical governance (Nursing and Midwifery Council 2004); this would include attention to the work of the NHS National Institute for Clinical Excellence (NICE). The Strategic Direction 2005–2008 (Local Supervising Authorities Midwifery Officers for England 2005) documents the commitment to developing and strengthening the framework of supervisors of midwives in the belief that through this, midwives will themselves be empowered and, in turn, women and their families. Five goals that relate to national standards and guidance, quality assurance, networks and relationships, professional leadership and regulation are included; several of these contain specific criteria related to evidence based practice.

LSAMOs also engage in supporting evidence based practice by virtue of registration as stakeholders in the guideline development process of the NICE. Stakeholder status involves the opportunity to comment on guidelines at the

scoping and draft stages. Between 2003 and 2006, the LSAMOs engaged as stakeholders in five NICE guidelines, also involving supervisors and midwives in that process and thus providing an opportunity for involvement in evidence based practice.

Midwifery supervision and evidence based practice – reaching its full potential?

From the activities included within the function and structure of supervision described above, it can be seen that there are numerous opportunities for supervisors of midwives to positively influence the use of evidence in practice at local, regional and national levels. If that is the case, the question must be posed about whether the full potential is realised and if not what may be restricting that? Potential contributing factors that may relate to an organisation and its culture, the supervisor and an individual midwife's responses to the evidence are explored below.

During the last 10 years, DH (1998) policy has driven the NHS towards greater engagement with evidence based practice through the policy emphasis on clinical effectiveness, self-regulation of health-care professionals and improving performance. Clinical governance is the framework that should support the timely implementation of evidence into practice, thereby reducing the time between publication and implementation through methods such as clinical guidelines. It is generally acknowledged that midwifery supervision complements the ethos of clinical governance and articulates closely with it through midwifery membership of working groups (Duerden 2003). However, it may also be that the different components of clinical governance may be conflicting rather than complementary, for example, clinical risk management may stipulate a more cautious approach to an aspect of care than the evidence warrants; thus the potential positive influence of supervision is diminished. An example of this is the use of water during labour and birth, which is explored more fully below.

In the United Kingdom, the majority of midwives work within the NHS, described as a 'complex adaptive system' (Plsek 2006). He argues that complex adaptive systems can be described by the following elements: *structures*, i.e. concrete facilities, e.g. hospitals, clinical areas, a health-care team or working group; *processes*, e.g. guidelines, policies or other procedures *that transfer information* and *patterns*, e.g. behaviours and beliefs. Plsek states that much organisational change effort, e.g. implementing evidence based practice, focuses on *structure* and much classic improvement work focuses on *process*, whereas *patterns* are more difficult and therefore often left largely untouched. It may be that the current maternity services and some organisations are simply too complex (Plsek 2006) for midwifery supervision to achieve its full potential in supporting evidence based practice.

In 2007, the government stated its priority by providing a gold standard of maternity services with its publication of *Maternity Matters* (DH 2007); this document supports and adds further details pertaining to maternity care to

the National Service Framework (NSF) for England (DH 2004b). There are also a growing number of evidence based guidelines, health technology assessments and public health guidance produced by NICE. Standards for care in labour have been developed by a consortium of the Royal Colleges (Royal College of Anaesthetists, Royal College of Midwives, Royal College of Obstetricians and Gynaecologists, Royal College of Paediatrics and Child Health 2007) and a group of auditable standards for maternity services have also been produced by the same group (Royal College of Anaesthetists, Royal College of Midwives, Royal College of Obstetricians and Gynaecologists, Royal College of Paediatrics and Child Health 2008). Maternity care commissioners and providers, including midwives, have both a framework of what should be provided and guidance on how that should be achieved. These, it could be argued, comprise the *structures* and *processes*, identified by Plsek.

Where the organisation allows, supervision of midwives may address the *patterns*, i.e. the social and emotional aspects of change, as well as the structures and processes, described by Plsek, to support evidence based practice.

It is widely recognised that the implementation of evidence is not a straightforward issue (Donald and Milne 1998; MacVicar 1999). The Midwives Information and Resource Service (MIDIRS) Informed Choice leaflets, available in well-presented companion sets for service users and providers, were developed to support the provision of evidence based maternity care. This initiative commenced in 1996 but NHS Trusts were required to purchase the materials. In qualitative research exploring the use of these leaflets, Kirkham (2002) suggests that one reason for the lack of impact on informed decision-making may be that some maternity environments and services may be considered culturally inert. They may experience tensions between achieving equitable provision, offering the range of services that women want and the requirements of evidence based services. Midwifery supervision may not be able to overcome such cultural characteristics in any advocacy that supports evidence based practice.

There are programmes that aim to address cultural inertia by supporting leadership and change management. An example is the 'Improvement Leaders' Guides' available through the NHS Modernisation Agency (2006), now incorporated into the NHS Institute for Innovation and Improvement. They advocate modernisation tools and techniques such as clinical microsystems, process redesign, theory of constraints, lean thinking, six sigma and statistical process control. However, these are likely to mean little to midwives and obstetricians, as modernisation resources were formerly focused on services with national targets, unlike maternity services. However, as modernisation methods, they could be used to support transferring evidence into practice, and several of the approaches included in the toolkits have parallels with the ethos and philosophy of midwifery supervision, for example, advocacy to achieve patient-centred services and effective team working. Research has demonstrated that such approaches have been used to support service developments that include the implementation of evidence into practice (Paeglis 2005). However, Iles and Sutherland (2001), in their comprehensive literature review of change management tools, approaches and techniques, caution that traditions, culture, politics and context all have a bearing on their

success rates. These issues resonate within the midwifery setting where there may be both organisational and professional culture and tradition to navigate. Stewart commented that

> *practitioners will seek to disregard or find fault with evidence which does not fit within their own beliefs or philosophies.*
>
> *(Stewart 2001, p. 285)*

Spiby and Munro (2004, p. 490) remind us that 'understanding an organisation's culture is identified as a key factor in introducing evidence based practice'. In their evidence based practice initiative, activities that supported implementation of evidence based guidelines included developing local ownership, a supportive culture, a team approach, a clear profile for the initiative and an ongoing programme of education and support. These supportive, collaborative and educational approaches also fit well with contemporary philosophies of and activities documented as part of midwifery supervision (Jones 2000).

Walsh highlights one of the difficulties in achieving evidence based practice by stating that 'midwives not only have to give up engrained practice habits, but also tacitly acknowledge that their care has been substandard for all those years' (Walsh 2001, p. 74). He illustrates the value of audit in achieving and monitoring the implementation of evidence based practice and of gaining midwives' perceptions of the barriers to incorporating evidence into their practice. Barger reminds us that 'an evidence based approach does not allow us to pick and choose evidence selectively to support our traditional way of doing things' (Barger 2001, p. 352).

Richens alludes to a climate of fear that works against the potential for change: 'the basis for clinical practice is more likely to be influenced by fear of litigation and lack of staff rather than evidence' (Richens 2002, p. 15).

In the *Yorkshire Barriers Project*, Bryar *et al*. (2003) stated that the key factors associated with research implementation in the fields of nursing, midwifery and health visiting include time to read and apply research findings, critical appraisal skills, understanding statistics, the support of managers and peers – doctors in particular – and, importantly, the authority to change practice. Some of these will not be surprising and will also have resonance for midwives who have been identified as a disempowered group (Kirkham and Stapleton 2001). Many of the barriers identified by Bryar and colleagues have been identified elsewhere (NHS Centre for Reviews and Dissemination 1999), together with inadequate documentation and absence of infrastructures that support timely access to evidence in practice settings (Sams *et al*. 2004). A further barrier to the implementation of evidence into practice reported by the same authors is the disinterest of medical colleagues (Sams *et al*. 2004). This has also been observed through the supervisory network where medical opposition to water birth has been cited as a reason for its variable adoption across the Yorkshire and Humber areas, despite a statement issued jointly by the Royal Colleges of Midwives and Obstetrics and Gynaecology indicating the absence of compelling evidence that water birth is unsafe (Royal College of Obstetricians and Gynaecologists/Royal College of Midwives 2006).

The maternity services in the United Kingdom have a long history of patient-centred and evidence based care that is generally of a safe standard (King's Fund 2008). However, it has been acknowledged that target-driven services have been the priority for change related resources (King's Fund 2008). These issues may have an impact on the implementation of evidence based practice, just as they have on other areas of service development.

In addition to the organisational and cultural challenges, other potential reasons for the continuing challenges of supporting evidence based practice may be individual styles and approaches to supervision. It may be argued that supervisors of midwives should, by virtue of their nomination and election by peers, be considered champions of midwifery and opinion leaders within their work setting. Evidence from other fields of health care demonstrates some positive effects of champions and opinion leaders as a strategy in changing professional behaviours (Sams *et al*. 2004; Doumit *et al*. 2007). Recent comments on supervision acknowledge the need for supervision to have a leadership and visionary role in a changing world, providing support and wisdom to the midwife (Osbourne 2007) and Warwick (2007) suggests that these are available. This appears to be supported by the findings of the LSA audit visit to NHS Trusts when data were collected during the Yorkshire and the Humber LSA audit visits during the practice year 2007–2008. Questions were put to midwives to determine their views of their supervisors' competencies in particular aspects of their role. One of these competencies relates to supervisors acting as a role model in evidence based practice (Nursing and Midwifery Council 2006). Of 469 midwives, 447 (95%) stated that their supervisor was a role model in evidence based practice (Yorkshire and the Humber Local Supervising Authority 2008). Whilst midwives' interpretation of a role model might vary, it offers a starting point for further consideration of this aspect of the supervisory function.

Although Stapleton *et al*. (1998) reported that the distance learning pack was considered to provide adequate preparation for the supervisory role, the focus of that evaluation related to the qualities and personal characteristics that midwives wanted in their supervisors; midwives' needs for support in evidence based practice were not reported. Midwives' priorities can be understood when they are working in a climate where traditionally they may feel unsupported, where concerns about their practice or of related litigation (Richens 2002) are significant issues and when midwives were still experiencing imbalances in power redolent of earlier approaches to midwifery supervision. Since Stapleton and colleagues' evaluation, evidence based practice has become a far more significant issue in the NHS due to the policy directives introduced in 1999 and the development of the work of NICE, including the publication of clinical guidelines and health technology assessments that impact the work of midwives. Future evaluations of supervision of midwifery should include the appropriateness of education programmes to prepare supervisors of midwives for the evidence based practice component of their role. It would also be helpful to consider whether particular educational philosophies are more appropriate than others. Preparation for the role and assessment is now available at a range of academic levels, but the

differential impacts of preparation at undergraduate and Masters levels would also benefit from further exploration.

Stapleton *et al*. (1998) identified that positive impacts on midwives from good supervision also had the potential to be beneficial for women (cited in Nursing and Midwifery Council 2008). It would also appear more likely, therefore, that midwives who feel empowered are more likely to feel that they have the authority and support to engage with evidence in changing practice. Stapleton and colleagues demonstrated that where midwives felt valued by their supervisor and were supported and praised for their achievements, their professional confidence was enhanced. In addition, supervisory decisions were perceived as empowering if they were made by consensus between supervisor and supervisee. Whilst good supervision may pass unnoticed (Kirkham 1996; Stapleton *et al*. 1998), poor supervision may be noted through its lack of positive impacts on organisational culture (Healthcare Commission 2006).

However, supervision of midwifery has not always been perceived as positive by all midwives. Earlier research identified that midwives do not always experience supervision as supportive, enabling or empowering (Stapleton *et al*. 1998; Shennan 1996). Instead, examples have been identified where supervision was experienced as intimidating and managerial in style and approach (Stapleton *et al*. 1998; Shennan 1996). It would appear unlikely that such supervisors would be approached for support with evidence based midwifery.

A further challenge for supervisors of midwives relates to the availability of time for the role and the flexibility available to supervisors in their scheduling of supervisory activities. In 2004, Mead and Kirby (2006) undertook an audit among 1817 supervisors in England to obtain robust information about the time spent on all supervisory activities during a given week in June 2004. The response rate was 41.5%. By asking closed response questions based on the activities of supervisors of midwives described in the *Preparation of Supervisors of Midwives* modules (Nursing and Midwifery Council 2002) and the national LSA Standards, two categories of supervisors were identified: the 'to do' supervisors, who clearly differentiated their supervisory duties from their substantive posts and the 'to be' supervisors who incorporated supervision into all aspects of their work. The audit also provided information about supervisors of midwives' caseload sizes and duration of time since midwifery qualification prior to appointment as a supervisor (national average 15.5 midwives and 15 years, respectively). Mead and Kirby report an average of 1 day per week spent by supervisors on their role but others felt that 2 days were required. In addition, Kirby (2006) highlighted that those identified as 'to be' supervisors reported spending more time than the 'to do' supervisors on providing support for midwives, professional leadership, developing evidence based guidelines and policies, standard setting and monitoring the integrity of midwifery services. However, many of these roles also reflect activities that midwives do in their substantive posts and there is little systematic and objective evidence about the difference that supervision of midwives makes for midwives or contemporary maternity services. It may also be that, in midwifery or multidisciplinary meetings where the implementation of evidence is debated, the voice of midwifery supervision is muted by existing

hierarchical perspectives that view the supervisor only in his/her substantive post in the organisation, rather than with the added potential for influence that supervision should bring. Stapleton *et al*. (2000) have previously reported the absence of 'clout' experienced by some supervisors.

Spiby and Munro (2004) remind us that there is little primary research that evaluates different approaches to changing midwifery practice. This also holds true for the impact of supervision overall and for its role in supporting evidence based practice. In view of the need to provide evidence of the effectiveness of interventions and systems, further research is urgently required to determine whether supervision of midwifery fulfils its aims, including impacts on fostering evidence based practice. The extent to which supervisors' roles and grades in their substantive posts affect their impact on evidence based practice should also be explored. The methodology to address these questions will require careful consideration.

Conclusion

This chapter has identified the interactions between midwifery supervision and evidence based practice, at all levels, to support evidence based midwifery practice in the NHS. Large-scale, rigorous evaluations of midwifery supervision are relatively scarce and the last, arguably most comprehensive research was conducted over 10 years ago. Further research is urgently required to determine the contemporary impacts of supervision on its overall aims and purposes, including evidence based practice and the associated challenges. Failure also to maintain a contemporary evidence base to supervision itself may threaten its continuation and may weaken its position in a competitive, financially driven and performance-managed NHS.

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8. *Is There Enough Evidence to Meet the Expectations of a Changing Midwifery Agenda?*

Tina Lavender

Introduction

The midwifery profession has undergone a number of practice based and educational changes over the last couple of decades resulting in different ways of working, changes in the midwifery role and adjustments to care provision. Such changes have been prompted by a number of key drivers including the growing public health agenda, the reorganisation of working patterns, consumer influences and the movement towards a midwifery philosophy of salutogenesis (well-being) (Downe and McCourt 2004). Alongside such changes has been a series of government documents such as the National Service Framework (NSF) for Children, Young People and Maternity Services (DH 2004), making a number of recommendations with the potential to impact the future midwifery agenda. These recommendations have been underpinned by evidence, although there is a great variation in the type and strength of evidence presented and utilised. This chapter briefly discusses the types of evidence available before exploring what evidence based practice (EBP) means to maternity care, the midwifery profession, individual midwives and women. It draws on the Children's NSF (DH 2004) and other works to describe the process of EBP and debates the utilisation of such evidence. Finally, a number of midwifery examples are used to illustrate how midwives can assist in using evidence to meet the needs of a changing midwifery agenda.

What evidence exists?

Historically, 'evidence' referred only to empirical research, with studies derived from a positivist paradigm being viewed as making the most superior contribution to health care. Although some health-care professionals continue to uphold this

belief, others argue that the social context of health care makes it unacceptable to rely on experimental research alone; this is particularly true in midwifery as the environment, economics, culture and support mechanisms all impact on maternal and child health. Experimental research has been predominantly heralded as the most important means of justifying maternity activities and can lead to appropriate care. However, positivist science is limited in its capacity to illuminate information of significance to the phenomenon of caring in a holistic manner (Munhall 1982; Tinkle and Beaton 1983). Caring for women during pregnancy and birth has a profoundly human element where clinical judgement is also informed by social context. For example, a trial that advocates the benefits of breastfeeding in public is of little value unless one understands the cultural beliefs and acceptability of this practice prior to implementation. It is widely acknowledged that randomised controlled trials (RCTs) are the best source of evidence of the effectiveness of clinical interventions (Popay and Williams 1998; Miller and Crabtree 2000), but evidence of effectiveness alone does not necessarily mean an intervention will be widely implemented. As Greenhalgh (1997) rightly states,

> *Evidence based medicine requires you not only to read the right papers at the right time and then alter your behaviour (and, what is often more difficult, the behaviour of other people) in the light of what you have found.*

Recent emphasis on EBP in health care offers an approach to dealing with ambiguities, and, at the same time, creates a potential for change based on scientific knowledge. However, an unfortunate and unintended consequence of EBP has been a false polarisation of quantitative and qualitative research, compounded by increasing popularity of a hierarchy of evidence considered worthy of influencing a change in clinical practice (Kingdon 2004).

One must remember, however, that EBP combines the wisdom derived from a variety of credible resources, including (but not exclusively) research findings, practice guidelines and protocols that have been developed by various governmental agencies, professional organisations and policy groups (Fullerton-Smith 1995). Evidence can also be derived from personal experience, observations and intuition (Davis-Floyd and Davis 1997), although, within many maternity organisations, this type of evidence is sometimes given little status. However, unless stated, within this chapter 'evidence' will refer to empirical evidence.

Is there enough evidence to support midwives?

EBP is about using research rather than doing research and should be integral to midwifery care. However, to be able to use research, a midwife must be able to access the evidence, critique the papers and interpret the data. This latter point is pivotal to how the evidence is used and relies on the individual's training and education, professional discipline, personal situation and previous

experiences. Personal experience, in particular, should not be underestimated. A midwife who cares for a woman in the antenatal period and diagnoses a breech presentation may be reluctant to follow the recommendations of the Cochrane review 'External cephalic version for breech presentation at term', which recommends this procedure (Hofmeyr and Kulier 1996), and/or give women unbiased information, if they have witnessed unskilful failed attempts and/or fetal distress resulting in emergency caesarean section. Similarly, a midwife who has personally experienced a positive birth in a free-standing birth centre may fail to supply a woman with all the relevant details on which to base her birth place decisions (e.g. rate of transfer).

I can recall an occasion when a midwifery colleague working on the same shift was obstructive to a woman's request to labour with a baby in a breech presentation, at a time when there was little empirical evidence, in the form of RCTs, around the efficacy of breech birth. Her obstruction was subtle, and presented itself by regular calls to the medical staff for poor external fetal heart traces (that were not actually abnormal), the strong recommendation that the woman should have an epidural, the regularity of vaginal examinations and the constant remarks to the woman and her partner that she would probably 'end up in theatre'. The woman inevitably ended up having an emergency caesarean section. However, it was not until the following day that the midwife confided to me that she had been present at her sister's breech birth when the baby was stillborn. One must be mindful of the fact that EBP is such a complex issue and that the quantity of evidence alone is immaterial if we fail to neglect other important factors, such as the personal experience of the carer.

Evidence to support midwives in promoting the normal birth agenda

One could argue that childbirth, as a natural physiological process, does not warrant the underpinning of empirical evidence. As pointed out by Montgomery (1958),

> *I have stated on numerous occasions that there is no more need to interfere with the course of normally progressing labour than there is to tamper with good digestion, normal respiration, and adequate circulation.*

This issue has been debated in other texts (Downe 2004). In my own national survey, which explored the views of obstetricians and heads of midwifery services on the need for a trial of planned caesarean section versus planned vaginal birth (Lavender *et al*. 2005a), many midwives felt passionate about not having to prove something that was considered so natural. One midwife, for example stated,

> *I think it is ludicrous to carry out such a study. Birth is a normal process. We do not have to prove that.*

Another midwife said:

> *Nothing can justify abdominal surgery without a good cause. This is like taking out tonsils, via the abdomen. I think we should be supporting women to trust their bodies to do what nature intended.*

Alternatively, there were a minority of midwives ($n = 21/123$, 17%) who supported the need for a trial of planned vaginal birth versus planned caesarean section who felt the need to prove that normal birth was superior.

> *It [a trial] would prove once and for all that normal birth is best and put the debate to bed.*

There has been a growing concern that traditional midwifery practice is becoming redundant. Davis-Floyd (2005) states:

> *In modernising societies, traditional systems of healing, including midwifery, have become increasingly regarded by members of the growing middle and upper classes as 'pre-modern vestiges' of a more backward time that must necessarily vanish as modernisation/biomedicalisation progresses.*
>
> *(p. 32)*

Fortunately, Davis-Floyd also recognised the emergence of the post-modern era within which she defines the 'post-modern midwife' who, amongst other things, is 'scientifically informed' and who knows the limitations and strengths of both the biomedical system and their own folk system and can draw from both paradigms. In order to support the normal birth agenda, increase the number of physiological births and improve maternal experiences, all midwives should adopt this post-modern approach. As stated by Sandall (2004),

> *Although we have a good evidence base in maternity care about what specific clinical interventions may promote normality in childbirth, large variations in practice remain.*
>
> *(p. 169)*

Yet, despite the enormity of evidence within maternity care, much of the published work relates to medical complications and clinical interventions, such as pre-eclampsia and induction of labour, to name but a few. The research agenda is often driven by the need to solve problems and improve outcomes without discovering the rationale for why the problem occurs. Dysfunctional labour, for example, is often 'managed' with oxytocin infusion without consideration of the individual woman's physiology. We continue, for example, to aim to reduce caesarean section rates by conducting trials of various clinical interventions. However, in some cases interventions may not be the solution as minimalist approaches may produce similar or improved findings. A personal review of

the pregnancy and childbirth group of the Cochrane Library (searched January 2006) found that of the 231 systematic reviews that included caesarean section as an outcome, only 3 demonstrated a reduction. These were 'Amnioinfusion for potential or suspected umbilical cord compression in labour' (Hofmeyr 1998) 'External cephalic version for breech presentation' (Hofmeyr and Kulier 1996) and 'Iron and folate supplementation in pregnancy'. This latter review has subsequently been withdrawn and replaced by a review that failed to demonstrate a reduction in caesarean section rates (Pena-Rosas and Viteri 2006). One could argue that, although caesarean section is an important output, by giving priority to this outcome, we may be overlooking less measurable outcomes with the potential for greater impact, for example, positive maternal perception.

However, if a normal birth research agenda is to be pursued, midwives must perceive normal birth as an important outcome. A national study of midwives' views of the current system of maternity care found this not to be the case (Lavender and Chapple 2004). These findings demonstrated that many midwives perceived low-risk care to have low status within maternity care, resulting in the desire for some to favour a more medical environment. This may be one reason why research underpinning midwifery care is lacking.

Is there enough evidence to inform the national maternity agenda?

National recommendations are becoming increasingly influential in guiding local practice, the most influential within maternity care in the United Kingdom being the NSF for Children, Young People and Maternity Services (DH 2004). This document sets out best practice recommendations based, where possible, on empirical evidence. However, having been a member of the pre-birth subgroup of the NSF, it became apparent that it is only when a group of experts get together to look at an important area of practice that they realise how little is known about that particular topic. As a consequence, much of the recommendations are based on expert opinion.

In the pre-birth subgroup, for example, there was an in-depth discussion regarding the 'booking' interview. Whilst this has become a routine aspect of maternity care, when placed under the microscope it became apparent that there was little evidence to guide this practice. Even the term *booking* was disputed; it has no evidence base, lacks description, means little to women and was considered outdated.

The current pattern, place and content of antenatal care that has been largely historically determined is not always evidence based and the number of routine visits has not changed significantly over the years (Villar and Bergso 1997). Whilst many of the experts around the table were mindful of the fact that many women had suggested that they wanted more antenatal care early, the current model, developed in the 1920s, focused on the later stages of pregnancy. The evidence around antenatal patterns of care remains weak (Lavender *et al*. 2007); however, our advanced understanding of screening and greater awareness of

women's needs and preferences enabled the group to reach decisions regarding future antenatal care. It was decided, for example, that to reduce the information overload, it would be wise to consider a discussion with women early in pregnancy, dealing essentially with care in pregnancy and issues around screening with a later discussion concerned with plans for birth. Similarly, early access to a midwife was considered an important step in providing appropriate information, identifying risk status and promoting health.

However, even amongst experts, differences of opinion occur and whilst it is advantageous to have multidisciplinary perspectives, the absence of empirical evidence sometimes makes consensus difficult. Although the example highlighted in the earlier paragraph may appear logical and non-contentious, several issues had to be addressed before consensus was reached; the challenges of early confirmation of pregnancy, impact on midwifery resources and demand on women's time were all considerations that needed in-depth discussion. The transparency of the rationale for practice decisions made through an expert panel is therefore vital for transference to clinical situations.

The classification of recommendations utilised within the National Institute of Clinical Excellence can be seen in Chapter 1, Table 1.3, whereby A is considered the best evidence, based on good quality randomised trials and systematic reviews. Interestingly, many of the recommendations in the National Institute of Clinical Excellence (2006) draft intrapartum guidelines are classified as D (good practice point, GPP) and therefore are based on consensus as opposed to empirical evidence. In the chapter outlining the recommendations for 'Care in the first stage of labour', for example, more than half of all the recommendations are based on the experience of the Guideline Development Group. Although for some areas of labour care, good quality empirical evidence would be helpful, for example, with regard to labour duration, for other recommendations empirical evidence is less appropriate. The recommendation 'women should be encouraged to communicate their need for analgesia at any point during labour', for example, needs to draw on common sense and professional experience as opposed to research evidence.

Evidence as power

Evidence can be a powerful tool, and like any tool, if used incorrectly can be hazardous. However, similarly, ignoring the available evidence can also be dangerous. Midwives are in a very powerful position, having the ability to use the evidence or ignore it, when caring for individual women. Although it is true that all midwives will not know all the evidence at any given time, my own research (Lavender and Chapple 2004) and clinical observations suggest that there are five main types of midwives, in terms of empirical evidence utilisation: (i) non-users, (ii) reluctant users, (iii) selective users, (iv) rigid users and (v) thoughtful users.

Non-users

'Non-users' describes the midwife who, despite having knowledge of the evidence, chooses not to use it. This group of midwives includes, for example, those

who continue to carry out episiotomies or use continuous external fetal monitoring because that is the way they have always practised. These midwives are likely to have had a negative impact on intervention rates in the United Kingdom. More subtly, it also includes, for example, those who encourage women to labour on their backs and those who fail to provide women with evidence regarding risk factors prior to commencement of an oxytocin infusion.

Reluctant users

Reluctant users are those who use the evidence only if they are pressurised to do so either by colleagues or by organisational protocols. This group of midwives includes those who will practice only in a certain way when a particular shift leader is working and those who will use the evidence only if formally instructed to do so. Examples of reluctant users include the midwife who withholds routine amniotomy on particular shifts where her actions will be questioned and the midwife who cup feeds, as opposed to bottle feeds, a baby on night duty only when working alongside an infant feeding adviser.

Selective users

Selective users make up the largest category and often have a combination of positive and negative attributes. There are midwives (i) who use empirical evidence only retrospectively, (ii) who use evidence to negotiate practice and (iii) who use evidence only to justify their personal beliefs.

Those who use empirical evidence retrospectively

Midwives, who use evidence only retrospectively, do so usually in an attempt to justify their own actions. For example, a midwife who carries out an amniotomy without any clinical rationale may select a particular finding within a piece of research, such as reduction in labour length, to justify the action. Much criticism has been directed to this approach, some suggesting that the term *sister says* has been replaced with *research says*. It is certainly my experience that some midwives do say 'research says' without a comprehensive understanding of either the extent or the strength of the evidence.

Those who use evidence when negotiating

Some midwives use evidence when they find themselves in a situation in which they feel that they need to negotiate. In a number of clinical scenarios, I have witnessed midwives skilfully utilising their knowledge of the evidence to prevent unnecessary labour interventions. On many occasions, when obstetricians or midwifery shift leaders have instructed the midwife to transfer a woman from low- to high-risk care for augmentation, for example, experienced midwives have quoted the limitations of the evidence related to the duration of the first stage of labour to prevent this from happening. Situations such as this, however, rely on a midwife who is confident in her ability to draw on other forms of evidence, such as clinical expertise and intuition. However, the importance of knowing the

evidence base of maternity care is particularly highlighted when peers or women quote evidence at the attending midwife to encourage her to care for her in a way that she may not think as appropriate. All midwives should be using empirical evidence for negotiation, even if the negotiations are with oneself. Debating the evidence and relating it to a particular woman, the social setting and cultural and personal beliefs can establish a clear rationale for the care provided.

Those who use evidence only if it justifies their personal belief

Some midwives may provide women with a certain amount of information on which to base their decisions. A typical, and all too common, example of this is a midwife who provides a woman with the evidence around effectiveness of epidural pain relief, believing that to have one would be in her best interest. This same midwife, however, may fail to provide the woman with the evidence around side effects of epidurals.

Rigid users

Rigid users are often as dangerous as those who fail to utilise the evidence at all. These are the midwives who insist on commencing an oxytocin infusion because the woman's progress has crossed the partogram action line, despite having strong, regular contractions. A further example is encouraging a woman to give birth in the upright position, when her preference would be to adopt a left lateral position.

Thoughtful users

Thoughtful users are those who select appropriate evidence depending on an individual woman and her environment. Midwives in this group can identify when the evidence is most appropriate and can say 'I know the evidence but for this individual woman it is not right!!' As Davis-Floyd (2005) rightly states,

> *We need to hear the voices that insist that the deviation can be the norm for this woman and this baby at this time in this place.*

But these midwives are those who can also gain the woman's trust so that she listens to the evidence provided to her and the accompanying rationale for why it should or should not be used. It may be that, for example, the woman does not wish to have regular vaginal examinations, despite the hospital guideline recommending this practice. The 'thoughtful user' will know the paucity of the evidence and will be able to relay the pros and cons to the woman and negotiate an outcome that is right for the individual. This midwife may practice differently, however, according to the individual woman.

Although I have defined specific types of midwives, many midwives will see themselves within more than one category as how the evidence used is complex and multifaceted. However, by recognising the different categories, one can reflect on their own use of evidence in practice and make appropriate changes.

Is there enough evidence to support women?

In the past, women received the care provided to them and very rarely questioned the appropriateness of that care. An unconditional faith in the attending midwife meant that women accepted the care on offer. However, over the last decade, the situation has changed. In the United Kingdom, the National Childbirth Trust (NCT) has been one of the driving forces of such change since the 1970s by actively challenging the medical model of 'passive patient and active doctor' (Oliver 1995).

Unfortunately, consumers' engagement with evidence in maternity care and the urge to receive evidence based information has been largely driven by their dissatisfaction with the care being provided. As acknowledged by Boote *et al*. (2002), pressure from consumer representative groups has arisen from the awareness that interventions have been introduced without sufficient evaluation and without taking the views and reported experiences of women using maternity services into account. A number of influential bodies including the international Cochrane Collaboration, the Consumers' Health Forum of Australia and the United Kingdom's Department of Health have all now advocated that the public should have a more participatory role in the processes of health research.

Women are no longer simply consumers of the research process; they have been encouraged to contribute to the generation of evidence, dissemination of that evidence and implementation of findings (Lavender *et al*. 2003). But, the majority of women clearly want to be provided with the evidence on which to make their childbirth choices, as demonstrated in a number of studies (Baker *et al*. 2005). In one of my own trials (Lavender *et al*. 1999) exploring the use of different partogram action lines, women demonstrated a clear desire for practice to be based on evidence. One woman said:

> *Research should take place for advancement (pause) look how we have come from the dark ages. Our mothers used to labour on their backs, yeh, and have an enema and shave (laugh). It's needed (research) to move care forward.*

Another said:

> *It is reassuring to know that the hospital bases its care on research.*

Difficulties arise when there is insufficient empirical evidence from which to guide practice. For example, a woman enters the antenatal clinic for her first antenatal visit and has a conversation with the midwife, which goes something like this:

Woman: *I have considered all my birth options and I have decided that I want a caesarean section*.

Midwife: *Why have you reached this decision?*

Woman: *I have read many papers and magazines that say that caesarean births are now as safe as vaginal births. I have also been on the Internet and read that there are disadvantages to having a normal birth.*

This scenario presents a very difficult and somewhat controversial situation. What does the midwife say next? I would argue, like many (National Institutes of Health 2006), that there is insufficient evidence on which to give women a truly informed choice. A recent Cochrane review of 'Caesarean section for non-medical reasons at term' (Lavender *et al*. 2006) found no trials to help assess the risks and benefits of caesarean section when undertaken without a conventional medical indication. The Cochrane review of caesarean section for non-medical reasons asserts that the routine collection of good quality prospective morbidity data (short- and long-term) is necessary to provide the best available evidence from which women can make informed decisions. This conclusion also resonates with the recommendations for future research published by the National Institutes of Health (2006). However, despite the lack of evidence, a midwife within a clinical situation such as this has to respond in some way. It is likely that in this situation, her own belief will highly influence what is said to the woman. Below are three examples of responses that have been reported to me during a study of midwives' views of caesarean birth (Lavender *et al*. 2006).

Midwife 1, who has had an elective caesarean birth herself, says:

The choice is up to you really, but I would recommend that you book in with Mr X who is more likely to support your decision.

Midwife 2, who believes some, but not all of the evidence, and says:

A caesarean birth may seem like the easy option but it takes you a lot longer to recover and I would strongly recommend you reconsider.

Midwife 3, who states:

. . . . actually there is insufficient research to say which is better but why interfere with nature?

Midwife 1 is influenced by personal experience; midwife 2 is influenced by her belief in caesarean births doing harm and midwife 3, who acknowledges the lack of evidence, demonstrates a degree of trust in nature. What is worrying, perhaps, is the fact that, when there is an absence of evidence, a woman's care becomes a bit of a lottery, reliant on individual carer's beliefs. However, given the marketing of EBP, some midwives are concerned that the woman may lose confidence in her ability as a practitioner if she reports that there is no evidence.

Midwives are often the gatekeepers to informing women of the evidence. In some areas of practice, there may be enough evidence, but it is ineffectual unless utilised. Mead's study of midwifery practice in 11 UK maternity units illustrates

this point (Mead 2004). In this study, midwives were provided with a standardised scenario of a healthy woman in spontaneous labour and questioned about various practices such as amniotomy, nutrition in labour and intermittent auscultation. She found a wide variation in practices and concluded that the unit philosophy or ethos played a large part in the care women received; this was despite the available evidence. For example, there is no need to restrict nutrition in labour for healthy women (Enkin *et al*. 2000), yet Mead found that fewer than 40% of midwives in some units would offer solid food to women.

How can midwives assist in using evidence to meet the needs of a changing midwifery agenda?

Midwives have, until recently, been fairly passive when it comes to engaging with the evidence based agenda. Although not all midwives can or should be researchers, all midwives can have a role in strengthening midwifery knowledge and subsequent practices. Below is a list of ways through which midwives can play their part.

- All midwives should be involved in contributing to auditing practice. This can be on an individual or unit level. If we look at the Children's NSF (DH 2004), for example, midwives should be auditing their own current practice and that of their organisation to identify which recommendations they currently fulfil, which areas need to be improved and what targets need to be set. Supervisors of midwives may play a pivotal role in auditing practice and should support individual midwives with self-auditing.
- A fundamental problem in midwifery appears to be the inability of some midwives to access the evidence, determine its appropriateness and critique its quality. Midwives need to learn to critique the evidence as opposed to relying on others who may interpret the data differently. A classic example of this would be one midwife saying that home birth is more dangerous than hospital birth, and another midwife saying that home birth is as safe as hospital birth. The quality of evidence in this area is poor and therefore is easily misinterpreted.
- Midwives need to challenge practice and guidelines when the evidence is weak, as opposed to being covert about not following unit protocols. The evidence around labour definitions and progress (Lavender *et al*. 2005b) provides a classic example. When a woman has been fully dilated for an hour without an urge to push, a midwife should state her rationale for watchful waiting as opposed to pretending that there is still a rim of cervix present. Knowing the strength of evidence related to such practices may give midwives the courage to overtly defend their care.
- Midwives should remember that much of the evidence is based on population based outcomes, as opposed to individual outcomes. As a consequence, one has to remember that there will always be exceptions to every rule. We may, for example, support the evidence (Royal College of Obstetricians and

Gynaecologists 1993) that it is unnecessary to provide continual electronic fetal monitoring for women with straightforward pregnancies and uncomplicated labours. But, if a woman requests this and would be anxious without it then the midwife needs to make a decision based on the balance between benefit and harm. However, if the evidence does appear strong, it would be in the midwife's best interest to discuss alternative practice options with senior colleagues prior to implementation.

- Midwives must not rely solely on other health professionals to gather the evidence that they need to support and guide practice. Different professionals have different perspectives, and although all maternity professionals have the common goal of improving outcomes, different models of care lead to different research priorities.
- Midwives should not shy away from local and national research and practice forums as they have an important contribution to make.
- Midwives should aim to be 'thoughtful users' of evidence (as outlined previously).

Conclusion

There is clearly a wealth of evidence, both empirical and tacit, but this evidence will never be complete. Midwives need to know not only what evidence does exist but also where the gaps in the evidence are. One must accept that in a changing profession such as midwifery, which is influenced by policy, organisational constraints and societal expectations, there will probably never be enough empirical evidence on which to base practice. As one piece of knowledge is uncovered, another question will be asked. Midwives must therefore draw on all types of evidence to give unbiased information to women and provide care that is appropriate for the individual. However, when empirical evidence is available, midwives need to be able to access and appraise that evidence to determine its suitability. Furthermore, midwives should engage with a reflective practice approach to critically analyse their own daily use of evidence.

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9. *Guidelines and the Consultant Midwife*

The Challenges of the Interdisciplinary Guideline Group

Helen Shallow

Introduction: the emergence of evidence to support midwives and women

In 1988, the Royal College of Midwives (RCM) issued an evidenced based document entitled *Successful Breastfeeding: a Practical Guide for Midwives* (Royal College of Midwives 1988) to all midwives in the United Kingdom. I recall it well because as a new midwife I felt empowered and emboldened by having reliable evidence in my pocket, which I could use to support my belief in women's ability to breast feed. This was at a time when tincture of benzoin compound (tinc benz co) was used to treat sore nipples and feeding time at the breast was limited to 10 minutes each side. Upstart neophyte midwives such as myself were accused of arrogance and not knowing better, despite having experiential knowledge as well as theoretical learning to underpin our practice. Midwives were forced to work in collusion with women and behind closed doors in order to bypass the rules and enable women to nurture their babies in their chosen way. Early in my career, I gained first-hand experience of what Kirkham observed and described in her research as 'doing good by stealth' (Kirkham 1999).

O'Driscoll and Meagher's (1986) method of active management of labour was widely promoted. The move to ever more interventions seemed inevitable. However, at the same time Enkin *et al*.'s (1989) *Effective Care in Pregnancy and Childbirth* at last was publishing evidence that could help put a break on what appeared to be an unstoppable assault on labouring women. Midwives themselves were taking action and Romney's (1980) work on shaving and Drayton and Rees' (1989) follow-up study of routine enemas resulted in the liberation of women from the 'high hot and hell of a lot' resulting in 'I feel

I'm dying' that so many women including myself were subjected to at the onset of labour.

The work of Sleep (1991) enabled us to justify *not* performing that routine cut, and no longer would Mary Cronk have to tell midwives to

> *accidentally drop your scissors on the floor*
>
> *(personal communication)*

From the early 1980s, a steady stream of evidence emerged, which consistently supported fundamental midwifery practice. Holistic principles, subsequently highlighted in *Changing Childbirth* (DH 1993), centred around choice, continuity and control for childbearing women. Such is the strength of evidence that subsequent government documents evidenced by research in the field of support (McCourt and Page 1996; Hodnett 1999a, 1999b, 1999c; Manders 2001) have consistently demonstrated that women benefit when they know their midwife and have continuous support in labour (DH 2004).

Running parallel to the above and preceding the current ascendancy of the randomised controlled trial (RCT), Ina May Gaskin was the first 'modern' midwife to articulate the essence of midwifery, working in true partnership with women. In doing so, she can inform us today on how to make links between a 'smart and lean' maternity service, cost-effectiveness and quality midwifery care. Were it not for midwives such as Gaskin and other authorities on childbirth matters, midwifery knowledge and evidence in practice would have suffocated under the weight of the prevailing dominant medical model. From anthropologists Jordan, Davis-Floyd, Murphy-Lawless and Kitzinger, to birth teacher/researcher/activists Edwards, Balaskas, Newburn and Lawrence-Beech, to midwife researchers Kirkham, Downe, Sandall, Spiby and Munro, all have contributed to a body of knowledge that is increasing our understanding of the importance of fundamental midwifery practice and the midwife–mother relationship.

Getting evidence into practice: a consultant midwife's story

Equipped with a wealth of knowledge and a 15-year varied and colourful career, I became a consultant midwife in 2002. Interestingly, when the post was advertised, it was for a 'consultant midwife'; however, the post I got was that of 'midwife consultant' – the only one in the country. A minor matter perhaps, but, nevertheless, a significant little twist signalling the first step in what turned out to be a painful journey.

It had long been a concern in this particular unit that midwives were working under strict medical supervision. They were constrained in their practice and discouraged from using their clinical judgement. They were unable to make autonomous decisions or practise outwith the medical model. Inadequate staffing

levels on a very busy labour ward led to defensive triage practice as midwives lurched from one crisis to the next. Central monitoring alarm bells frayed nerves and caused unnecessary anxiety as well as adding to midwives' loss of control. In every room, the intercom speaker called for the keys or a member of staff. Like a knife, the invisible intrusion cut through the flow of a woman's labour. Midwives had had enough, and had made their feelings known at the highest level. The post of consultant midwife was hard fought for and finally agreed upon in what would seem, on reflection, to have been an effort to placate a very disaffected and oppressed workforce.

At the interview I laid bare my wares. I was determined that I did not want a consultant post unless I could hold true to my beliefs, support women and midwives and work in equal partnership with other members of the maternity and obstetric team.

With the post secured, and as a new chair of the midwife forum, I was tasked with writing a set of guidelines to support normal birth. I offered to put the first draft together to be circulated to all midwives and obstetricians for comment and contribution. I recall the enthusiasm from the midwives. It was agreed by the senior midwifery team that the guidelines were midwifery business and that the doctors' permission would not be required to ratify the guidelines once agreed by the midwives. I nevertheless cautioned against isolationism, and influenced by the work of Jones (2000) and in the spirit of collaborative working insisted that all work be reviewed by the whole team and where appropriate obstetric contributions be included. The senior midwifery team signed up to the guideline project and the research midwife and her assistant readily volunteered to help ensure robustness and accuracy.

Munro and Spiby's (2000) work had been our inspiration. I had seen various versions as maternity units up and down the country adapted their work. I felt, however, that we needed something more detailed in order to address the disadvantaged position midwives found themselves in within this particular unit. Through the developmental consultative process I hoped as well to foster a sense of ownership by everyone involved.

The resulting guidelines therefore were written to help midwives and other related health-care providers to enable women to achieve normal birth. We acknowledged the difficulty in defining normality; nevertheless, we adhered to the boundaries of normality as outlined in the Midwives Rules and Standards (Nursing & Midwifery Council 2004b). Our interpretation of normal birth was based on the World Health Organization (WHO) definition, which stated that normal birth is

> *Spontaneous in onset, low risk at the start of labour and remaining so throughout labour and delivery. The infant is born spontaneously in the vertex position between 37 and 42 completed weeks of pregnancy. After birth mother and baby are in good condition.*
>
> *(World Health Organization 1996)*

In addition, the guidelines acknowledged the unique normality of *every* woman and that women who have complex needs often have the potential to spontaneously birth their baby without induction, augmentation, assisted delivery or caesarean section and might benefit from some if not all aspects of the recommendations in collaboration and negotiation with obstetric colleagues.

The philosophy underpinning the work was the belief that labour and birth is not an illness and that women have the potential and courage and strength to birth their babies with little or no intervention when actively supported and cared for. Midwives have long underestimated their influence on labouring women (Edwards 2000). Where midwives have adopted a more social model, not only do outcomes improve but there is also evidence of positive effects on parenting (DH 2004). The recommendations in the guidelines had been produced in order to help guide the midwife towards proactive support and encouragement for women in labour, taking into account their individual needs, wishes and expectations. Users of the guidelines were urged to be committed to the promotion of normality; however, where complications existed or arose, a multidisciplinary approach to women's care was expected in order to achieve the best possible outcome for women, their babies and their family.

Methodology

With the invaluable help of the lead research midwife, I compiled the first draft of our own guidelines using evidence from a variety of databases including Cochrane, MIDIRS, Medline and CINAHL. We also used other forms of knowledge gleaned from midwifery journals and frequently cited literature.

No one doubts the role of the RCT in advancing science. However, as Kotaska cautions

> *as RCTs continue to ascend in the evolution of evidence based medicine, we must recognise and respect their limitations when examining complex phenomena such as birth – in heterogeneous populations*
>
> *(Kotaska 2004).*

Although the guidelines took account of the evidence from RCTs where they existed for the care of women in labour, more importantly they incorporated the wealth of level B and C evidence that goes some way to addressing the rich complexities of birth that inevitably cannot be captured by any one single research method. The intention was that the guidelines would help midwives to examine their current practice and reflect before calling a doctor, or transferring a woman to obstetric care, as to whether *they* had done all that they could to help the woman toward normal and safe birth. The guidelines were viewed as a tool to help midwives articulate and make visible their practice in ways that would reassure women and obstetric colleagues that their practice was based on sound principles underpinned by authoritative knowledge and evidence.

In categorising levels of evidence, we adopted the recognised formulae used by the National Institute of Clinical Excellence (NICE) in an effort to ensure transparency and consistency of approach. Draft copies of early work were widely distributed, first to midwives and then to obstetric colleagues, for comment and collaboration.

Whilst the recommendations and suggestions for practice were not exhaustive, it was hoped that the guidelines would act as a basis upon which to build knowledge around normal birth. Wherever possible we focussed work on the best available evidence knowing there would always be more to learn that has not yet been evidenced by RCTs. As with other guidelines, there was an expectation that, as knowledge and more evidence emerged, the guidelines would be regularly updated and reviewed. In all, we produced 11 guidelines that ranged from birth environment and diagnosing onset of labour, to care of the perineum before, during and after labour. We also included guidance on water birth as well as flow charts identifying what midwifery strategies to use for delay in both the first and second stages as well as recommending when it might be timely to refer for assistance.

The ratification process

Interestingly, the water birth guideline was one of the first to be ratified and 'signed off'. It was clear that despite collective midwifery agreement that we would *not* require obstetric sanction for midwifery guidelines, we could not progress or use any guideline until it had passed through the official clinical governance guideline process, which required the clinical director's signature. The imbalance of power was already evident. Despite sign off by the head of midwifery and consultant midwife, it was not enough. Midwifery was clearly being controlled within a rigid clinical risk management structure led by an obstetrician and senior midwife who appeared to have a stranglehold and final say on how midwifery business would be conducted. Nevertheless, with regard to using the pool, there was an imperative to show willingness in the light of the midwives' discontent, and once the pool was installed everyone was keen to have guidance in place.

Progress continued, albeit slowly, as three more guidelines were ratified: nutrition, diagnosing the onset of labour and birth environment. Guideline meetings were held every other month and progress was delayed as meetings were cancelled or decisions postponed when the consultant obstetrician absented herself. There appeared to be an unwritten rule that decisions could not be made in her absence.

A key element of the consultant midwife role is advocacy both for women and midwives. It soon became apparent to me that the midwives I worked with had in the main been silenced. Although in other units senior midwives were on first-name terms with their obstetric colleagues, midwives maintained a formality and subservience I had not seen since my student midwife days. In my new role, I determined to address and be addressed as an adult equal partner, showing respect, nevertheless, and expecting the same in return. I knew the difference between assertiveness and aggression (Dickson 1985). I had learned to reason and

debate effectively. I work within my Midwives Rules and Standards (Nursing & Midwifery Council 2004b) and am usually sure of my facts. I am able to make my case in a reasoned and calm manner. This is possibly why members of the group who disagreed with the guidelines avoided engaging in the debate by not attending the meetings.

I do not doubt that in other trusts the process may be similarly bureaucratic. However, the process itself appeared weighted against midwifery in so far as midwifery knowledge and evidence were not treated equitably with medical colleagues who then had the power to dictate either our demise or our success (Donnison 1988). I have noticed on many occasions that if obstetricians choose not to follow national guidelines they alter guidance accordingly and justify it. Paradoxically, however, this rule does appear not to hold true for midwives despite invariably having more evidence to support their case.

It became increasingly obvious that my ability to debate and reason was unexpected by those who were more used to conciliatory behaviour. The work we produced was as robust as we could make it. No statement was made without supporting evidence. The midwives in the main were delighted with the end product and impatient to have the guidelines to work with. As time went on, I realised others' absence from meetings was a deliberate attempt to delay and obstruct the process of our guideline development. We made numerous alterations to the original text based on comments and suggestions received both from midwives and doctors; nevertheless, when it came to final ratification of the body of the text, i.e. care in labour, we reached an impasse.

The coup de grace

Until this time, I trusted my midwifery colleagues even when we did not always agree. Notwithstanding, I was confident that midwives would want to safeguard midwifery and support normal birth for women where appropriate, safe and possible. At last after several consultations we reached consensus, or so we thought. The research midwives and myself were quietly confident that at the next meeting we would at last ratify the normal birth guidelines. Unexpectedly and just prior to the meeting, a group member warned us that there were problems ahead. She had contacted the Trust representative for Clinical Negligence Scheme for Trusts (CNST) accreditation and they allegedly would *not* accept two sets of guidelines. My response was incredulous as I had consistently made clear that the guidelines were for well women where no other guidelines existed. They were the guidance for midwives to aid prevention of pathology *prior* to turning to obstetric guidelines that addressed deviations from the norm. In other words, there would be a seamless set of guidelines, one set preceding the other.

The meeting convened with all the members present. The lead obstetrician announced that we could not ratify the guidelines due to CNST regulations. I argued the case with her and sited numerous Trusts where CNST rating had been enhanced by having such a package in place. I looked to my midwifery colleagues for support and was met with silence. Speechless, I withdrew from the meeting

and my research colleague continued to try and make sense of it to no avail. One and a half years of painstaking work was blocked. What was worse was being abandoned by senior midwifery colleagues who had supported and encouraged the work from the outset. The betrayal was hard to bear.

We had not just reached an impasse or a difference of opinion. We were staring different paradigms squarely in the face. It was painfully clear where the senior midwifery team's allegiance lay and who had power over whom.

Overcoming adversity

The remit of the consultant midwife had been seriously undermined. Much of the teaching around facilitating normal birth was based on the evidence within the guidelines. If we could not ratify them, how could the work be used effectively by midwives? Midwives were otherwise confined to working within the medical model with very little room for manoeuvre and frightened to practise without a guideline to 'protect' them. Although damaged, I was not prepared to let go. The wisdom and tenacity of the lead research midwife helped me to continue, at least for a time.

Another requirement for being a consultant midwife is resilience, and so I bounced back. We decided to bypass the guideline process, rename them and transform them into a handbook entitled *Evidence in Practice for Midwives: Maternity Care in Normal Labour and Birth* (2005 unpublished). Keeping the substance the same, I re-wrote the guidelines in a more discursive style. One way or another we were determined to get this information out to local midwives. Knowledge is power and with that in mind I knew midwives, furnished with their handbook, as I was back in 1988, would be able to practise their craft openly and with confidence.

About the Handbook

The handbook outlined care for women who are assessed as 'low risk' for labour with the intention of facilitating normal birth without unnecessary intervention. At the same time, it was intended to help the midwife recognise where labour is not normal and where timely referral to consultant care would ensure safe birth for mother and baby. With the guidance and support of their care givers, women's choice and preference would be central to enabling women to feel in control of their labour and birth whatever the course of labour or outcome at the time of birth. What matters mostly to women, after the safety of their baby, is the sense of being in control and integral to decision-making, which includes their genuine involvement. It was hoped that the strategies recommended in the handbook would also prove beneficial to women who are not considered 'low risk' for labour but who might benefit from some of the preventative and supportive techniques that are known to aid labour and birth.

In busy modern labour wards, it is all too easy to adopt a production line approach to labour and birth, forgetting that there are feeling, thinking women

and partners behind each name scribbled on the (in)famous whiteboard. Cervical dilatation alone has become the arbiter of progress (or lack thereof) even though there is overwhelming evidence that labour progress is influenced by the birth environment, support in labour, and psychological well-being. All the essential factors that influence how well women will progress and move through labour are sadly given low priority. Fear, anxiety and isolation are a recipe for arrested progress. As midwives, we have long known what helps women, but only recently are we more openly defining and describing midwifery knowledge and skills. The handbook of evidence for practice was an aid to help midwives to look beyond arbitrary time constraints to a holistic, common sense and open approach to labour care. For too long, it has been asserted by some that normal birth 'just happens' (or not) and that what midwives do to help achieve it is, well, 'nothing really'. Some midwives have become all too used to *not* articulating and recording *why* they know a labour is progressing; or that the baby *is* coming despite a longer than average second stage (Stephens 2006). Now with the handbook, midwives had a resource that could support what they do or do not do by evidence from a wealth of women's experience and knowledge that is at last being made visible through a variety of research methods.

I left before the handbook was launched over a year later. The overpowering autocratic culture of the organisation eventually led me to seek employment elsewhere. It was clear that those in power were not ready for the consultant midwife remit and the inevitable changes the role promotes, which are firmly endorsed in government policy (DH 2004). Before my rather traumatic departure, a student midwife commented wryly that they had 'beaten me too'. I reflected on what she said and realised they had not beaten me at all. I was leaving in order *not* to be beaten and not to succumb to an oppressive organisation whose stifling leadership culture threatened my integrity and safety.

Transformational leadership and getting evidence into practice

As I considered leaving my post as consultant midwife, downhearted and very tired, it took an enormous effort emotionally and psychologically to consider applying for a similar post elsewhere. My supportive husband pointed that although I had finished with that post, I perhaps was not done with being a consultant midwife.

A useful study that commented on hospital culture and its effect on intervention was done by Biringer *et al*. (2001). Having identified four representative Ontario Hospitals that had low caesarean rates, they examined the practices at the hospitals to identify the factors that made it possible for them to attain and maintain low caesarean rates. They found 12 indices of success:

- Pride in low caesarean section rate
- Hospital culture – birth is a normal physiological process
- Commitment to one-to-one support in labour
- Strong leadership

- Effective multi-professional teams
- Timely access to skilled professionals
- Obvious strong commitment to evidenced based practice
- Continuous quality improvement, client feedback, staff appraisal and audit
- An accessible and interactive database
- Continuity and co-ordination of care
- Networking
- An ability and willingness to embrace and manage change – change is the norm, with a need to continually monitor and adjust performance

It was not long before I realised that the organisation I subsequently joined had some of these indices. At the outset I was fully integrated into the multidisciplinary team and welcomed by the executive team. Within days, I had a formal invitation to attend monthly consultant meetings and have since been able to represent the midwifery view through this forum. The Trust philosophy is not to seek permission but to ask forgiveness, if you get it wrong. If it had not been clear to me before, it was now, that organisational culture is influenced by the leadership style at the top. Belief in my aims and my transformational leadership style caused dissonance in my previous post; however, in this post they appeared coterminous. An initiative such as improving birth outcomes and reducing interventions has to be a whole system approach and as Biringer *et al*. (2001) showed, no amount of evidence will change practice unless everyone is signed up to contributing their part to change and improvement.

The consultant midwife's job can sometimes be a lonely one; however, she/he cannot work in isolation. Elemental to the job is winning the hearts and minds of others and seeking out those who can help to achieve goals as well as supporting them achieve theirs. Facilitation, diplomacy and an understanding of human nature are all key to success as well as having support, which for me had been inherently lacking and which now felt extremely reassuring.

The first task put to me was to produce a set of, you have guessed it, guidelines to support normal birth! In the light of the story so far I must be forgiven for groaning inwardly. I determined not to re-invent the wheel; however, my previous work had been specific for and owned by a different organisation. I discussed this work with midwives, supervisors and obstetricians and everyone agreed to review it as a first draft and then, if satisfied with it, to re-adjust and add accordingly in order to make them their own.

Once again the text was re-formatted to make it fit the local guideline proforma and then they were distributed widely for consultation. The response I got was somewhat unexpected. I was congratulated by obstetricians and advised to publish! More surprising and somewhat unexpected was the initial opposition from a group of senior clinical midwives who after further discussion, consultation and contribution accepted them as a tool that could support junior midwives (but not necessarily themselves). It appeared that midwives who have only ever worked in one place may think there is just one way of doing things and that is *their* way irrespective of national initiatives and an abundance of evidence. Sensitivity and tact were required to win over some midwives who in the early

days regarded the new consultant midwife with suspicion. Their view, quite rightly, was that care for women irrespective of risk should be woman centred and reflective of the philosophy identified in the guidelines, and not just for those viewed as 'low risk'.

The guideline process was followed and without exception the whole set was ratified within 18 months.

Dissemination

Once the process was completed the next stage was to raise awareness and distribute them to all areas of the maternity unit, including, of course, the community. The guidelines are on the intranet, though staff have yet to use them in this way, preferring instead to refer to guidelines in folders. The normal birth guidelines are in fluorescent green folders in the hope that they will stand out. Monthly 'keeping birth normal' workshops are held across both sites and the guidelines form the basis of teaching around care of women in normal labour. It is anticipated that they will also form the basis upon which to underpin practice when the new birth centre opens. I visited each team in the community and hospital and presented midwives with a set of guidelines and encouraged them to add articles and information to the folders to keep them a live document. I also recommended a set be placed with the home birth kit, so that the on call midwife would have easy access to them.

Evaluation

To date, there is no evaluation of the benefit or otherwise of having the guidelines in place. Anecdotally, however, they have been well received and midwives confirm that they are seeing changes in practice. The Trust is currently in the process of developing the maternity information system and as part of the improvements I have requested inclusion of a data set that incorporates positions for labour and birth, use of the birth stool and non-pharmacological methods used to support women with labour pain. One of the challenges is to identify the differences between vaginal birth (with interventions) and normal birth (with minimal intervention). It remains the case that many equate normal birth to vaginal birth and it is therefore almost impossible with current data collection to see the differences and whether the guidelines are affecting practice in terms of improved outcomes. This is an ongoing project but one with an urgent imperative as we look to identifying outcomes from midwifery-led units and free-standing birth centres.

Accountability and supporting women's choice in the absence of evidence

Earlier in this chapter, advocacy was mentioned as being a major part of the consultant role. Advocacy, assertiveness and accountability are close bedfellows,

and in my former consultant post supporting and standing by women, honouring their requests, as well as ensuring they were fully informed were construed by some as promoting 'unsafe practice' and interfering with the doctor–woman relationship.

Now, however, obstetricians and midwives refer women to the consultant midwife on a regular basis. A significant proportion of the referrals are for women who want a vaginal birth after having had a previous caesarean section (VBAC, vaginal birth after caesarean), but who do not want to be confined. For some women, continuous electronic monitoring of the fetal heart is viewed or has been experienced as an intrusion that inhibits being active and mobile. Women have vividly described how the 'just in case' IV cannula hurts, and they would prefer not to have one inserted unless medically indicated. In the light of past experience, I warned obstetricians early on that such women were 'out there' and that they would find the consultant midwife without her seeking them to be an advocate on their behalf. I suggested that they might wish to add a section in their current VBAC guideline that made provision for such women. After animated discussion, it was generally felt that the existing guideline should remain as it is. Nevertheless, there was acknowledgement that there *are* women who have requests that do not comply with the standard package and therefore I should write a midwifery guideline in order to support them. Interestingly, one colleague commented that there had never been a problem before (I arrived), so what is the need to do anything differently? I had asked midwives how they cared for such women. They disclosed that it usually was not a problem as they circumvented the guideline by sending women either home or to the antenatal ward. By the time they returned it would often be too late to implement guideline recommendations. In other words, the midwives were doing the time honoured 'good by stealth' that, it could be argued, might not always be in the best interests of women if we accept that there is an increased risk to women who have a scar on the uterus. My goal was to enable midwives to practise openly, honestly and safely.

There is a wealth of evidence that shows intermittent auscultation (IA) to be safe for low-risk women in labour (National Institute for Health and Clinical Excellence 2007). However, no study has been done to show this is not so for women who have had a previous caesarean section. NICE, therefore, in the absence of evidence, erred on the side of caution and recommended continuous electronic fetal monitoring once labour is established (National Institute for Health and Clinical Excellence 2007). It is my view, however, that if a woman goes into spontaneous labour and labour is progressive without any form of intervention and she is supported continuously by a midwife once in active labour, her risk is minimised. The level of monitoring with IA will be as good as and very arguably better than confining her to a cardiotocography (CTG) and leaving her unattended.

In this context, I wrote a guideline for 'VBAC' women who were opting for low intervention active birth. Midwives made it clear that if they had such a guideline they would follow it. Without it, they felt they could not wholeheartedly support women as they (the midwife) would be 'going against' the current guideline. Much debate was had about a woman's right to refuse treatment and that if a woman

is fully informed midwives have a duty of care to support them irrespective of guidelines. Doctors seem to have grasped the concept that a guideline is just that, a guide. However, many midwives appear to have allowed their practice to become constrained by the belief that to deviate from a guideline will expose them to the risk of discipline or litigation. This in my view and in my experience will not be the case if we account for our practice and demonstrate that we are working within our sphere of practice as outlined in the Nursing and Midwifery Council (NMC) Midwives Rules and Standards (Nursing & Midwifery Council 2004b) and Code of Professional Conduct (Nursing & Midwifery Council 2004a).

> *You must recognise and respect the role of patients and clients as partners in their care and the contribution they can make to it. This involves identifying their preferences regarding care and respecting these within the limits of professional practice, existing legislation, resources and the goals of the therapeutic relationship.*
>
> *(Nursing & Midwifery Council 2004a, p. 4)*

> *A midwife:*
> *Should work in partnership with the woman and her family; should enable the woman to make decisions about her care based on her individual needs, by discussing matters fully with her; should respect the woman's right to refuse any advice given.*
>
> *(Nursing & Midwifery Council 2004b, p. 17)*

The final paradox: who's responsible?

The VBAC guideline went through several consultations and reached the point of ratification. The final document was a true collaboration between midwives and obstetricians and great effort was made to incorporate everyone's views. I was greatly heartened by everyone's willingness to engage even where there was difference of opinion.

We had now come full circle, back to the issue of 'sign off'. As with other organisations, the guideline process required the clinical director to sign off the document. Although in support of the principle of the guideline, it was felt that as this was a midwife-led initiative the consultant midwife should be responsible and the one to sign it off. Although I was and am entirely in agreement with this, the official process dictated otherwise. As a midwife-led initiative, the midwife can and should take full responsibility in partnership with women, because, after all, what is outlined in the guideline is supporting and monitoring a woman in normal, spontaneous, progressive labour. However, in the current litigious climate, it was felt unlikely that the organisation would support the guideline if it does not get ratification through the recognised process.

Finding a way through for the VBAC guideline was a fascinating process as it goes to the heart of decision-making and accountability. A wise colleague suggested we call it a 'framework', and as the midwives generally supported the document we could authorise it through midwifery supervision sanctioned by the

head of midwifery, consultant midwife and director of nursing, herself a midwife. It was after all, midwifery business. This is what happened and the framework has now been widely disseminated and women who now ask for VBAC and birth with minimal intervention can be supported openly, confidently and safely.

Conclusion

In this chapter, I have tried to weave together the threads of the story of one consultant midwife and her role in relationship to evidenced based practice and working in multidisciplinary guideline groups. At the beginning of the chapter, the background to the emergence of evidence was described, as I experienced it in the 1980s. It goes on to outline the development of guidelines and the challenges I and others face in the struggle to get evidence into practice. Issues of power and control and how in some areas midwives are losing sight of the essence of their own profession are addressed.

The chapter then, however, outlines a different story of how transformational leadership and collective and collaborative team working can make a difference. It demonstrates Biringer *et al*.'s (2001) assertion that change is more likely to occur when a whole system approach is encouraged and where everyone is steering in the same direction. It may take time winning everyone over, but what helps enormously is a facilitative organisation that encourages people to grow and develop.

Finally, I addressed the difficulty of developing guidance in the absence of evidence as convention would view it, and at the same time supporting women's choices safely even when those choices do not comply with current recommendations. It raises issues around accountability and ultimately who is responsible. Midwives have a chance, as never before, to embrace the opportunities in a rapidly changing National Health Service (NHS). We have an opportunity to work in partnership with women and obstetric colleagues to ensure women receive appropriate and safe care according to their individual need in appropriate environments. It is unlikely we will ever again have the opportunities that are placed at our door as this chapter goes to print, so I urge the reader, if at first you do not succeed, keep trying.

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10. *Unpicking the Rhetoric of Midwifery Practice*

Marianne Mead

Introduction

'Unpicking the rhetoric of midwifery practice' – the title demands some explanation before the concepts that it contains can be explored in the context of evidence based midwifery practice.

Like most midwives, I am neither a philosopher nor a linguist, but the wonders of my secondary education taught me that the etymology of the word rhetoric has a Greek origin, and that rhetoricians (Greek origin) and orators (Latin origin) played an important role in the development of politics from antiquity to our days. Indeed, rhetoric (from the Greek ρήτωρ, *rhêtôr*, orator, teacher) is the art or technique of persuasion, usually through the use of verbal or written language. It has historically been concerned with persuasion in public and political settings such as assemblies and courts of law, and flourishes in open and democratic societies. Its origin goes back to ancient Greece, and philosophers such as Aristotle, Plato and Socrates. The organisation of democracies has evolved in the last 2500 years, and so has the concept of rhetoric. Today, rhetoric is described more broadly as the art or practice of persuasion. The term can also be used today in a pejorative or dismissive sense, when someone wants to distinguish between 'empty' words and action; or between true or accurate information and misinformation, propaganda; or 'spin'; or to denigrate specific forms of verbal reasoning as spurious. Nonetheless, rhetoric, as the art of persuasion, continues to play an important function in contemporary public life (Wikipedia 2006). Rhetoric has also been identified as playing a role in *identification*, in as much as it can serve to establish a shared sense of values, attitudes and interests (Burke 1969). Therefore, in its broadest sense, rhetoric concerns both the practice and study of effective communication in literature and in social discourse (Nordquist 2006), but can also be a catalyst for the development of some political, professional or other group identity.

The questions I propose to address in the context of the midwifery profession are, is there such a thing as midwifery rhetoric, and if there is, how does it fit

reality? Given the positive, but also the potentially pejorative use of rhetoric in general, is it possible to suggest that midwifery rhetoric has its strengths but also limitations, its truth but also its spin? If there is a gap between rhetoric and reality, I propose to examine the steps that could be followed to narrow it and ensure that what women are promised could be delivered.

It might be useful at this point to state that several of the opinions I shall put forward here have not necessarily been the subjects of systematic research and evaluation, but are often the product of my own reflections at a point where my midwifery career has exposed me not only to clinical practice in the United Kingdom and in Belgium, but also to contacts with midwives from most of the European Union and European Economic Area member states, through my participation in the work of the European Midwives Association. These experiences have led me to believe that midwives often demonstrate paradoxes between what they profess to believe and the actual care they provide. I shall therefore occasionally draw on personal experience rather than on systematic empirical research evidence, and for the sake of comparison, I shall use my knowledge of the British and French systems; but, midwives in other countries may well recognise similarities with their own situation.

Is there such a thing as midwifery rhetoric?

'Midwives are practitioners in their own right' or better still 'Midwives are *independent* practitioners in their own right'. This is a leitmotif that British midwives will offer quite spontaneously when asked to define what type of a professional a midwife is. Student midwives can reproduce this leitmotif without any problem practically within seconds of starting their midwifery educational programme. In France, the leitmotif is similar, though slightly different: 'La sage-femme exerce une profession médicale à compétence définie. Profession médicale, l'indépendance de la sage-femme ne doit donc jamais être contestée' which translates as 'Midwifery is a medical profession with specifically defined competencies, and because midwifery is a medical profession, the independence of the midwife must therefore never be challenged'.

Although French midwives often identify that they are very special because they believe that it is only in France that midwifery is a medical profession, this is not the case: midwifery is also a medical profession in Belgium and Luxembourg. But, what does 'medical profession' mean? Should the British midwife be jealous of the medical status of the midwife in France, Belgium and Luxembourg? In my view, emphatically, no! Is the midwife an *independent* practitioner, and should her independence never be challenged? The answers to these two questions are not quite so emphatic as the previous one, but it remains negative – at least in my mind. No internationally approved text suggests that the midwife is an independent practitioner or that her independence should never be challenged. Indeed the definition of the midwife adopted by the International Confederation of Midwives (ICM), the Fédération internationale des gynécologues et obstétriciens

(FIGO) and the World Health Organization (WHO) suggests strong duties of care to women and even society (ICM *et al*. 2005):

> *A midwife is a person who, having been regularly admitted to a midwifery educational programme, duly recognised in the country in which it is located, has successfully completed the prescribed course of studies in midwifery and has acquired the requisite qualifications to be registered and/or legally licensed to practise midwifery.*
>
> *She must be able to give the necessary supervision, care and advice to women during pregnancy, labour and the postpartum period, to conduct deliveries on her own responsibility and to care for the newborn and the infant. This care includes preventative measures, the detection of abnormal conditions in mother and child, the procurement of medical assistance and the execution of emergency measures in the absence of medical help. She has an important task in health counselling and education, not only for the women, but also within the family and the community. The work should involve antenatal education and preparation for parenthood, and extends to certain areas of gynaecology, family planning and child care. She may practise in hospitals, clinics, health units, domiciliary conditions or in any other service.*

This definition of a professional who is the specialist of normal childbirth is paralleled by the wording of the Activities of the Midwife (European Parliament and European Council 2005) that identifies that midwives will need to refer women who present with abnormalities to a medical practitioner and assist him where appropriate, and irrespective of these abnormal or emergency situations, will also carry out treatment prescribed by a doctor. This would suggest some limitation to the independence of the midwife, even if one accepts the 'limited medical' responsibility of the countries that have adopted the medical status. Furthermore, the assertion that no one should challenge the independence of the midwife is contrary to the principle that professional practitioners must be accountable for their practice, and midwives can therefore be questioned about their practice if this was seen to fall short of the standard that might be expected. This claimed right of independence and authority is challenged by the legislator who requires midwives to register with a statutory body whose prime responsibility is the protection of the public. This statutory body, presently the Nursing and Midwifery Council in the United Kingdom, and the Conseil national de l'Ordre des sages-femmes in France, has therefore the right to register a practitioner who has fulfilled the entry condition to a profession, thereby enabling this practitioner to undertake activities that would normally be unlawful if they were to be undertaken by someone who was not specifically authorised to do so. As a guardian of public safety, the statutory body does also have the right – and indeed the duty – to remove the name of a practitioner who would have been found to fall short of the minimum standard of trust, knowledge, competence or even health expected from such a professional, from its register. This has the direct effect of preventing the exercise of the professional duties by this individual. But for this duty to be performed by any

statutory body, it must be given the power to exercise its authority to protect the public.

Rhetoric or reality?

The definitions of rhetoric proposed at the beginning of the chapter suggest a positive and a more negative purpose. The 'art or practice of persuasion' is not new and certainly not confined to politics. In the sixteenth century, Thomas Wilson published a book on rhetoric, with a chapter entitled 'On apt choosing and framing of words and sentences together called *elocution*'. This chapter includes a number of forms of speech, one of which is circumlocution, defined as 'a large description either to set forth a thing more gorgeously or else to hide it' (Wilson 1553). In the context of this chapter, it is useful for midwives to reflect on whether or not they might occasionally be found to put forward information in a way that 'sets forth some elements, whilst at the same time hiding some others'. Indeed, it is useful for midwives – and other health practitioners – to question whether we might even do this to ourselves so as to convince ourselves of the solid foundation of our arguments.

I would argue that midwives – and others – have been guilty of presenting many new practices and technologies as advantageous to women without sound evidence that this was the case, and even when evidence demonstrated that the argument put forward was potentially flawed. Examples abound in the United Kingdom and elsewhere, although practices and even diagnoses that are common in one country, may be nearly absent in another: no clear explanation that the main purpose of antenatal diagnostic tests is to eliminate abnormal pregnancies rather than reassure women that all is well; the systematic use of electronic foetal monitoring on admission and during labour, though there is some evidence that this practice is declining; the use of terms such as *low risk* rather than *normal* or *healthy* pregnancies; the wide use of epidural without the suggestion that this may be associated with an increase in abnormal outcomes, in particular, a rise in caesarean section rates in nulliparous women; restricted food intake during labour; routine and systematic vaginal examination at every antenatal visit to diagnose 'threatened premature labour', to identify just a few.

The use of particular language and the stress put on some aspects rather than others may well influence the perception of risk of both midwives and medical practitioners. 'Preventing abnormalities' has clearly a different emphasis than 'promoting normality' even though in theory the two expressions are simply the two sides of a same coin. While one emphasises a pessimistic approach, of the pregnancy only being normal in retrospect, the latter emphasises the positive, normal and physiological aspect of pregnancy that trusts nature to do its jobs properly. Monitoring of the progress is only there to reaffirm this normal process – one looks for the normal, and only raises concern if the normal is not found. It is possible that the preventative approach may reinforce the search for the abnormal 'because you never know'. Severe abnormal outcomes, such as perinatal mortality, increase in maternal morbidity and a rise in unnecessary

caesarean sections are to be avoided at all costs. This is partly demonstrated by the type of regular meetings that take place in maternity units: monthly perinatal mortality meetings, but no meeting of normal delivery rates. A number of studies have been undertaken across the world at different times to examine the possibility of reducing ever-rising caesarean section rates, but this is still far from being adopted as an urgent issue.

The reality though, is that perinatal mortality is rather rare in the industrialised world and the steep rise in caesarean sections has not been associated with a corresponding fall in perinatal mortality (Tew and Kitzinger 1998). Assuming that midwives and obstetricians are doing what they think is best for women at the time that they are providing care, but bearing in mind that the level of intervention is often disproportionate to the risk, the perception of intrapartum risk was explored to see if midwives working in higher intervention units were more likely to report a higher perception of intrapartum risk. The results demonstrated that there was a slight increase in risk perception associated with higher intrapartum intervention rates, but more worryingly, irrespective of the level of intrapartum intervention, midwives generally underestimated healthy nulliparous women's ability to progress normally in labour, but overestimated the advantages of some interventions, in particular, epidural analgesia (Mead and Kornbrot 2004a, 2004b). Opportunities to repeat the study with midwives in the Belgian Flanders and the Alsace Lorraine region of France demonstrated major variations in practice, but also in perception of risk (Mead *et al*. 2006). The variations in practice demonstrate that the cultural/social environment of care plays a very important part in professional practice and suggests that the rhetoric of 'the midwife as an autonomous independent practitioner' whose practice should not ever be questioned according to the French principles projects an image that does not correspond to reality. As Wilson (1553) said, it does seem to put forward an image that is more gorgeous than reality, and hide areas that we might rather ignore or would prefer women not to be aware of. However, the errors in risk perception suggest that the rhetoric of midwives is associated with an insufficient level of awareness or knowledge, and not a desire to put forward a point of view that would be known to be wrong. The information put forward may be erroneous, but not known to be so.

The language of midwives is often quite unequivocal, e.g. 'Midwives are the guardians of normal pregnancy care' or 'Midwives provide women centred care'. Students are often able to repeat these principles at the beginning of their training, yet by the end of their first year of education, anecdotal evidence suggests that they are already strongly socialised into the possibilities of midwifery practice that includes at times the inability to adopt practices that they know are in the best interest of women. This suggests aspirational rhetoric that favours the independence of midwifery practice, rather than a language of reality that demonstrates a gap between the theory and practice, and the common adoption of practices that are not based on evidence and not recommended by international authorities (World Health Organization 1996).

The results of enquiries on midwives' intrapartum risk perception, first carried out in the United Kingdom then replicated in Belgium and France

(Mead *et al*. 2006), have demonstrated wide variations in practice and risk perception. Tables 10.1 and 10.2 show some of the differences reported on the admission procedures and intrapartum care, where Belgian midwives report a much lower level of admission and intrapartum observation than their British or French colleagues, but where French and Belgian midwives report a much more interventionist approach during labour, with, for instance, fewer women 'allowed' to eat and drink during labour, more regular vaginal examinations, and more continuous electronic monitoring.

The studies then asked respondents to identify their perception of risk for observations undertaken at the point of admission in spontaneous labour and

Table 10.1 Admission observations (%)

Observations	England $n = 249$	Belgium $n = 125$	France $n = 270$
Temperature	96	51	93
Pulse	100	59	94
Blood pressure	100	98	100
Ketonuria	74	13	49
Electronic fetal monitoring	73	89	99
Inform a doctor	4	80	19

Source: Mead *et al*. (2006).

Table 10.2 Intrapartum observations and care (%)

	England $n = 249$	Belgium $n = 125$	France $n = 270$
Temperature – intact membranes	75	6	29
Blood pressure	97	59	91
Ketonuria	74	2	3
Vaginal examinations	(4 h) 90	(1 and 2 h) 87	(1 and 2 h) 96
Continuous fetal CTG	3	26	56
Nutrition			
Nil by mouth or water only	6	40	84
Any solid food	81	38	5

Source: Mead *et al*. (2006).
CTG, cardiotocography

during the first stage of labour, with either no intervention, an artificial rupture of membranes (not reported here) or epidural analgesia. Although the Belgian and French midwives had demonstrated a greater medicalisation of labour, paradoxically they showed themselves to be more optimistic about potential intrapartum risks, both at the point of admission and for the ultimate delivery outcomes. In the United Kingdom, the maternity units used for the purpose of the study had been classified as having either lower (Intervention –) or higher (Intervention +) intrapartum intervention rates (Mead *et al*. 2006) (see Tables 10.3 and 10.4).

It is important to note that these three countries have been members of the European Union for a considerable number of years and have all signed the European Directives relevant to midwifery education and practice in 1980 (European Economic Community 1980), and have ratified the changes in legislation in 2005 (European Parliament and European Council 2005). This means that all 25 EU member states are meant to have education programmes that are compatible with the free movement of midwives from one member state to another. It is obviously acceptable that some practices, particularly those influenced by the organisation of health care and the reimbursement of costs, will exercise an influence on the delivery of care by midwives, but where women have access to similar types of maternity services, care should be driven by evidence and therefore, be very similar. This is particularly so for intrapartum care, as the overwhelming majority of women give birth in a hospital environment. Yet, the examples of these three countries demonstrate that local practices, social pressures and culture seem to exercise a far greater influence than the conclusions of well-grounded research studies. Further studies are in progress with midwives in Northern European countries, and with obstetricians in all the countries involved in the midwifery studies, to assess whether there are parallels between expected practices and intrapartum risk perception between midwives and obstetricians. This might provide some information about the importance of the strengths of social and cultural influences rather than academic and clinical research. At present, evidence

Table 10.3 Midwives' perception of risk on admission (%)

	England $n = 249$		**Belgium $n = 125$**	**France $n = 270$**
	Intervention –	**Intervention +**		
Cephalic presentation	94	93	90	93
Breech presentation	5	5	8	6
Birth weight 3–4 kg	75	75	71	72
CTG normal	83	82	79	82
CTG pathological	4	5	5	5

Source: Mead *et al*. (2006).

Table 10.4 Intrapartum risk perception (mean %)

	England $n = 249$		Belgium $n = 125$	France $n = 270$
	Intervention –	Intervention +		
If no intervention				
Delivery <12 h	66	63	77	85
Continuous CTG	56	60	53	100
Mild/severe hypoxia	18	17	17	19
Requesting epidural	46	61	63	75
Spontaneous vaginal delivery	72	66	81	80
Forceps/ventouse	16	22	14	13
Emergency caesarean	12	12	5	7
If using an epidural				
Delivery <12 h	59	54	83	90
Continuous CTG	91	82	90	100
Mild/severe hypoxia	22	23	25	22
Spontaneous vaginal delivery	57	51	69	75
Forceps/ventouse	29	34	23	18
Emergency caesarean	14	15	8	7

Source: Mead *et al*. (2006).

suggests that women who use maternity services are faced with a rhetoric of woman-centred care based on evidence that is not matched by the actual practice. This is true in the United Kingdom and in France, where pressure groups are challenging some widely accepted practices.

Consumers are no longer the passive recipients of health care they may once have been. Midwives – and other health professionals – must become alert to the awareness of service users represented by increasingly more influential and powerful pressure groups. In the context of a philosophical shift in service organisation and planning, which recognises the importance of the voice of consumers, the professional rhetoric has been challenged. Their contribution has been invited by the government (House of Commons Health Committee 1992), the Department of Health (DH 1993) and the National Institute of Clinical Excellence (National Institute for Clinical Excellence 2001; National Institute for Clinical Excellence 2004) for a considerable amount of time. Interestingly, some of these consumer groups have made information available for professionals as well as consumers on their web site, e.g. the National Childbirth Trust (http://www.nct.org.uk/), and professionals are now also relying on some of

these pressure groups to support them in providing the care and support that women need during pregnancy and after delivery; e.g. antenatal education, intrapartum and breastfeeding support.

It would be too easy to suggest that the theory–practice or rhetoric–reality gap only occurs in practice. It has also affected midwifery education and management in the United Kingdom, and is in the process of having an important effect on the proposed changes in midwifery education in France.

In the United Kingdom, student midwives used to be 'trained' in schools of midwifery where only student midwives or midwives darkened the front door or the classroom doors. Midwife teachers taught midwifery, and various medical practitioners offered their insight into topics that had or could have an influence on midwifery practice: obstetrics, neonatal care, anaesthetics, sexually transmitted diseases, family planning and contraception. Others, e.g. social workers, dieticians, emergency services personnel, also offered the knowledge that was relevant to the delivery of normal and emergency care during pregnancy, labour and the postnatal period. Upon qualification, midwives practised mostly in midwifery units run by midwifery officers/managers, often in conjunction with obstetricians. From the mid-1970s, with the Briggs report (Committee on Nursing 1972), the push towards a research based nursing profession, and therefore higher education, was started. Inevitably, midwifery education followed this trend, because, at that time the overwhelming majority of midwives still followed the post-registration route.

The description of midwifery in the 1970s might sound idyllic, but it was certainly not perfect for women or even midwives, as demonstrated by the Second Report on Maternity Services (House of Commons Health Committee 1992). The publication of Changing Childbirth followed (DH 1993), and midwifery services underwent major philosophical changes. The health service adopted a new language and the service became 'patient centred' – apparently! With the election of the Labour Party in the late 1990s, a multitude of specific targets meant to maintain or improve patient care, but often seen to be used as priorities driven by financial and political considerations rather than patients' needs, began to drive the delivery of health services, including maternity services. In parallel, the publication of various guidelines were also meant to have a positive effect on the quality of the care provided to pregnant women and their families.

The recent financial difficulties experienced in the UK National Health Service (NHS), together with long-standing difficulties in recruitment and retention of midwives and other health-care professionals, have led to a more widespread acceptance of support workers. This is beginning to affect midwifery, where midwives are now undertaking duties previously in the province of medical practitioners. As this situation is not associated with an increase in the number of midwives, clearly, part of the role of the midwife is beginning to be delegated to others who have been named *maternity care assistants*. In fact, what used to be seen as the duties to be undertaken by a midwife – and still identified as such in the European Directives on the activities of the midwife (European Parliament and European Council 2005) – are no longer seen as belonging to the midwife's role in recent British documents, where anyone working with women in the postnatal period is now a 'health-care professional'. This shift in language will greatly

facilitate the 'modernisation' of maternity services where managers, including midwifery managers, will be happy to delegate tasks hitherto performed by midwives to any 'health-care professional'. It is interesting to point out that the word 'midwife' is not used once in the latest quick reference guide on routine postnatal care of women and their babies (National Institute for Clinical Excellence 2006), despite the fact that the midwife is *the* professional identified as the most suitable practitioner for the care of healthy women throughout pregnancy. The possible replacement of present forms of care are also very likely, e.g. care previously given face to face could be replaced by telephone consultation. Although we are told 'modernisation and redesign need to come before financial reform', there is evidence that midwifery support workers already undertake postnatal care in some areas and 'will be rolled out across the whole of our community over the next two to three years' (Appleby 2006). Appleby adds that these support workers add value and quality to the care women receive, but only gives evidence of this by stating that breastfeeding rates have remained static and her maternity unit has maintained the UNICEF Baby Friendly status for 9 years. There is, of course, more to postnatal care than breastfeeding – however important breastfeeding is – and there is ample evidence of problems, e.g. postnatal depression (Tully *et al*. 2002), domestic violence (Bacchus *et al*. 2003) or incontinence (Sultan and Kamm 1997; Mason *et al*. 2001), that are poorly detected and treated. Therefore, when I read 'in addition to a core purpose and envisioned future, a service needs to recognise five key activities: its people, finances, operations and activities, improvement, and standards of quality and health and safety' (Appleby 2006), I cannot help but wonder what the 'envisioned future' can possibly mean and why it is that patients' care does not figure as the utmost first priority. This is not a service that is patient centred, but a service that will insist that it is providing what patients, and in maternity services women, need, irrespective of what patients or women actually say. The language of targets and financial rewards has won over many who are trying to suggest that the purpose of health care is competition and education is business. Neither makes sense to me!

I have some reservations about the changes that are put forward at a time when newly qualified nurses and midwives cannot find jobs, or even lose their jobs, because budgets must be balanced; yet, the public is told that this will not threaten patient care. I am concerned that the language of change management is being used to ensure that changes are being made, but that the whole story is not being told. Despite large increases in health care in this government, the United Kingdom continues to lag behind other comparable EU member states in terms of health expenditure as a proportion of its gross domestic product (GDP), although the annual rise has increased considerably compared to other EU member states. Nonetheless, the United Kingdom continues to have a much lower ratio of physicians although it has a higher ratio of nurses and midwives per 1000 inhabitants. The general health indicators are comparatively lower, while the infant mortality rate is one of the highest in the European Union (Organisation for Economic Co-operation and Development 2006). There are now moves to develop generic health-care assistants who would be drawn from existing health-care assistants, and trained to become 'care assistant practitioners'. I am even now

familiar with the concept of a 'foundation degree' for these practitioners; but this is not a BSc or a BA, and neither will these new 'practitioners' be registered. This is just one of many examples of the use of old language in new forms that sound good, but are not really quite what they sound!

Education did not escape the 'rationalisation' principles. The principle of moving nursing and midwifery education into higher education was adopted without sound evidence that moving from training to education or from schools of nursing and midwifery to universities was or would be in the interest of patients or practitioners. Undoubtedly, it did have advantages for the universities who increased their student roll and for the hospitals who were no longer responsible for providing the educational facilities. The teachers, now renamed lecturers, had new and exciting opportunities for continuing education and research, but paid the price of having their old clinical links severed and replaced by more artificial and less personal contacts. Clinical staff, with a diminishing ratio of staff per patient and with a higher dependency level because of early discharge from hospital, were appointed mentors and clinical assessors of students. They had to be because the teachers had disappeared into the universities! This makes perfect sense if one accepts that clinical staff have a vocation to teach students, but their priority must be patient care first and students second!

Students are no longer qualifying at the certificate level, but at either the diploma or the degree level. This again seems to make perfect sense because, apparently, we need a more knowledgeable professional workforce because of the increasing number of challenges they face – more technology, increased clinical responsibilities, the birth of research and evidence based practice, a more knowledgeable population with greater access to knowledge than ever before; and, of course, we must meet the requirements of the European Directive on working hours, and therefore, the reduction in junior medical staff working hours. Clearly, somebody has to do what they can no longer do simply because there are not enough of them. Even the recruitment of foreign trained medical staff has not dealt with the long-standing shortfall in numbers of medical students being trained in the United Kingdom. This, of course, does not even begin to deal with the ethical issues involved in recruiting staff trained in poor countries that have invested large sums in the preparation of junior medical staff only to see them poached by a country that could, and in my personal opinion should, have invested more in the long-term development of medical and other health professions.

Bringing midwifery and other health professions into the university setting was seen as the way to deal with the increase of theoretical knowledge that students and qualified staff were meant to absorb. It also meant that universities were able to demand higher entry criteria. Without any sound evaluation of the new proposed system, the hours of clinical contact were reduced to increase the 'academic' content of the curriculum. The best of motives were put forward: midwives – and many other health professions – were integrated into the university system. Holistic educational systems based on the integration of theory and practice were replaced by modules, including inter-professional modules, because it makes theoretical sense that all these professionals who will have to work together should learn together. The fact that it may make financial sense may not be foreign

to development. Archie Cochrane awarded the wooden spoon to obstetrics for recommending a wholesale move from home births to hospital deliveries without sound evaluation (Cochrane 1972); but one wonders if the same could not be awarded to the health professions that have adopted the move into higher education, including initial education at diploma or degree level, without sound evidence that this would improve the delivery of health care. And yet, more and more initiatives are being developed to deal with the changes in the health-care services, but without necessarily taking on board their effects on the quality of care delivery.

Educational developments at the European level aim to harmonise the quality and levels of higher education qualifications across Europe. The Bologna Declaration (European Ministers of Education 1999) laid down basic principles that ultimately aim to harmonise undergraduate and graduate education throughout Europe. Midwifery lecturers in some countries, including France, seem keen to adopt the principles of Bologna, and in particular, the principle that suggests that a minimum of 5 years in higher education after the baccalaureate should be rewarded with a Masters degree. So we would have the relatively nonsensical situation of beginners qualifying with a Masters! Universities would have to accept that this level should be one of the relevant entry requirements to a higher research degree, such as a PhD. I believe I have come across enough midwives who have achieved a Masters qualification without studying research methods in depth and would be quite disadvantaged if they were to use this as an entry to a PhD. So here too, we shall have to be careful that the words used do not promise something that is different from what is normally understood. Certainly what is usually promised is the truth, but not quite the whole truth and nothing but the truth!

Conclusion: professionalism and rhetoric

As a midwife, I owe the women I look after and the students I look after, the truth, the whole truth and nothing but the truth, so that they might make informed choices that suit them in their particular circumstances. I believe that this is required from all midwives, whether in clinical, educational, research or managerial posts. If propositions are made to enable services to make do with the financial resources available, this should be stated. There is little point in promising women a service that will suit their needs if, in effect, services are being cut. It might be acceptable for politicians to suggest that this will not affect patient services, but for professionals to play that game is at least unworthy.

Let us call things by their name. Let us use language that is clearly understood by the majority of people to mean what it is meant to say. Let us not use rhetoric to put forward the more gorgeous aspects and hide those we would rather people did not know about, as Wilson put it so well as early as 1553. Let us acknowledge what we do not know and let us make sure that evidence can support our claims. This is the least we owe women, students and staff who trust us.

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11. *The Potential of Service User Groups to Support Evidence Based Midwifery*

Belinda Phipps and Gillian Fletcher

Introduction: losing the link

In the beginning, your health was your business and you were helped to stay healthy and were treated when you were ill by the elders of the tribe or society to which you belonged. Midwifery, probably the oldest profession, was carried out by women you knew, and you as a user of their services, fed back to them directly. If you liked what they did and the results were good you recommended them and you used them again. If not, you did not. Their status or their living depended on your happiness with their service.

As health care became part of organisations and particularly since the advent of the National Health Service (NHS), those who provide health services to you began to act in a way that was driven by those far away from the user's personal experience of the service, without the benefit of your thoughts. Those who care for you are no longer paid according to how satisfied you are with their service. Those who manage, train and govern the actions of those who treat you are no longer paid based on your satisfaction. Instead, insulated from the feelings of users, they become driven by the views of their masters and their staff. Status and pay depend on position in the hierarchy, not the skill with the user of the service. Being seen to be an expert by your peers became more important than being appreciated by those for whom you care.

As a result of this separation, the heath service became a place where those needing its services were done to. They were passive recipients of care designed and delivered by 'the experts'. The health service became a society in its own right with its own way of doing things, and patients, a very anonymising disempowering term, had little or no say.

Carry on Matron, although a gross parody was amusing precisely because elements were true to life. Non-evidence based treatments and rules were unquestioningly applied in a hierarchical structure where the views of those at the top

of the pyramid were more important than those for whom the service was being provided. Patients were almost an inconvenience to the running of the hospital.

This development is not unique to the health service. The bus and train services still struggle to develop and run their services in order to meet the needs of their passengers; they are also noted for a belief that their services would run more efficiently and on time if passengers did not get in the way.

This contrasts significantly with the statement, written over 50 years ago by Mahatma Gandhi, proposing a different approach to patient care and found on a wall in a Bombay (now called Mumbai) hospital.

> *A patient is the most important person in our Hospital. He is not an interruption to our work, he is the purpose of it. He is not an outsider in our Hospital, he is part of it. We are not doing a favour by serving him, he is doing us a favour by giving us an opportunity to do so.*

For maternity services, this led to births where women were drugged into semi-consciousness and were not allowed to have partners or close family with them at the birth and for days afterwards; where babies were separated from their mothers and where women were encouraged to spray their nipples with antiseptic before rigid 4-hourly feeding; a service where enemas were compulsory and episiotomy routine; where dignity was removed along with one's pubic hair and yet, at the same time, one was expected to behave nicely, keep quiet and do as the doctor required, in passive grateful patient mode.

> *My baby was kept in the nursery and only brought to me every four hours for feeding. When I went home ten days later, I didn't have a clue what my baby did all day and breastfeeding was a nightmare. Because of concerns about 'infection', he was ten days old before his dad even got to hold him once. Two years later when his brother was born, Andrew, aged 2, was not allowed to visit me in the hospital for the eight days of my stay. Hardly the best start to family life!*
>
> *(One of the author's experiences [GF] – first baby born 1971.)*

Many of the elements that drive this behaviour are still built into the service today. Those in senior positions are paid more, much more than those providing the services. A chief executive officer can expect to receive a salary six or seven times that of a midwife working with mothers. Traditionally many consultants received substantial merit payments that were based on their standing among their peers and their reputation in research, rather than on their effectiveness with those they treat or the views of those who use their services.

User views and the development of user groups

It is not surprising that one day users would start to rail against this sort of system, and want to take back the driving seat from those who sought to provide the

services they thought users ought to have, rather than what the user and ultimate bill payer actually wanted.

In the consumer world, commercial companies felt this pressure as customers showed their power by switching purchases from companies that did not meet their needs and listen to them to ones that did. As a result of this, the discipline known as *marketing* grew up, marked by a seminal text *Principles of Marketing* (Kotler and Armstrong 2006). It was Philip Kotler who understood and expressed clearly the principles of marketing and generated the acceptance that companies can only remain in business if they understand and meet the needs of the customers better than their competitors.

The NHS in the United Kingdom, however, was not subject to these pressures and is only now coming to the understanding that it must satisfy the needs of its users and the public. Although users do not have the power to withhold payment directly, the electorate can make their views known to their politicians at a local level. People are now more willing than ever to voice their concerns to those who run the service.

The development of organised bodies has been key in bringing those who manage the health service to this understanding. In the area of maternity, the National Childbirth Trust (NCT) was born in 1956. Users came together to change the way society dealt with the process of birth and of becoming a parent, and particularly the way maternity services were provided by the health service.

In 1956, the following were the original aims of the NCT:

- 'that women should be humanely treated during pregnancy and in labour, never hurried, bullied or ridiculed;
- 'that husbands should be present during labour if mutually desired;
- that analgesia should not be forced on women in childbirth (and) nor should labour be induced merely to save time;
- that more emphasis should be given to self-regulated breastfeeding and rooming-in allowed if the mother wants it, and for future maternity units to be designed with this in mind;
- that the mother trained for natural birth should be allowed and encouraged to carry out her training fully during labour;
- that all mothers should be encouraged to use natural childbirth for the benefit of themselves and their babies and that posters to this effect should be displayed in all antenatal clinics;
- that the idea fostered by many medical people today that natural childbirth includes routine examinations, routine administration of analgesia, routine episiotomy should be dispelled;
- as childbirth is not a disease it should take place in the home wherever possible. If impossible, maternity units should be homely and unfrightening and in no way connected with ''hospital'' (Moorhead 1996).

The World Health Organization's report on *Appropriate Technology for Birth* (1985) included 16 recommendations based on the principle that each woman has

a fundamental right to receive proper prenatal care; that the woman has a central role in all aspects of this care, including participation in the planning, carrying out and evaluation of the care; and that social, emotional and psychological factors are decisive in the understanding and implementation of proper prenatal care. These recommendations included easy accessibility to information about birth practices in hospitals (rates of caesarean section, etc.) and the suggestion that governments develop regulations to control the use of new birth technologies (World Health Organization 1985).

Although the NCT aims were written 50 years ago and the WHO document is now 21 years old, there is still not full acceptance of them. The Royal College of Midwives (RCM) recently created a *Campaign for Normal Birth* web site (www.rcmnormalbirth.org.uk) and published some tips for midwives to help them to use evidence based care to promote normal birth. These tips, which clearly reflect the aims listed above, include encouragement to watchful and supportive care based on intuitive knowledge, listening to the woman, encouraging mobility and intervening only when a rationale can be given.

In the early days of the NCT, it was as though battle lines had been drawn and the 'David and Goliath' contest had begun. From the late 1950s onwards, individuals who felt alone and unable to affect the sort of care they received flocked to become involved in an organisation that could give them the voice and the power they needed to influence a vital service.

Service users started to make their voices heard and, encouraged by the NCT, to complain about their treatment. For many years women had accepted the 'doctor knows best' approach, but by the late 1970s and early 1980s, the ideas of those who had long campaigned for change from within the NCT were becoming gradually more widespread. More women were starting to question the wisdom of blindly following the dictates of the medical profession. A couple of groundbreaking books published in the late 1970s empowered women and gave them more confidence to question decisions about their health care, especially in the childbirth field where women were being reminded that pregnancy is not an illness. One was called *Our Bodies Ourselves* written by a group of American feminists and launched in the United Kingdom in 1978 (Phillips and Rakusen 1989), the other was Sheila Kitzinger's *The Good Birth Guide* (Kitzinger 1983). This project was unique in that it gave maternity units a rating depending on women's views of the treatment they had received. It was probably the first time women were encouraged to think like consumers and 'shop around' for the kind of care they wanted. This new wave of interest built on the campaigns of previous years, relating to the rising induction rates and challenging practices on the grounds of evidence and rates of some non-evidence based interventions, started to fall. Birth plans, a statement of women's preferred choices, an idea originally conceived by Penny Simkin, a birth educator, and further developed in the United Kingdom by the Association of Radical Midwives, were beginning to become popular (Kitzinger 1983). Midwives too were joining the call for change, and *Birthrights* (Inch 1989), another book published at the time by midwife Sally Inch, demonstrated that many of the practices currently in use were not based on sound evidence.

Now user organisations involved in birth play an important role in lobbying and campaigning and working with the health service to make these aspirations part of everyday practice within the health service.

How commercial and public bodies differ in using the views of users

The commercial world has developed a discipline called *market research* to enable it to build the views of its customers and potential customers into the design, development and delivery of its products and services. Research may be quantitative or qualitative, or other tools designed to look at the range of views there are on a particular subject. Secondary research (a search of other published sources) is often carried out first, followed by primary research that is commissioned by the company, and may or may not ever be put into the public domain.

Research is carried out to establish what needs or wants are not yet being met, to look at how those needs or wants could be met, to test ideas for new products or services, to test ways of promoting those products or services and to establish how favourably or otherwise the products or services are being received by customers. A huge range of methods for understanding the mind of the consumer have been developed. Such methods include observational research; telephone, face to face, postal and web surveys; focus groups or individual unstructured or semi-structured interviews; analysis of buying behaviour, mining of information from databases; monitoring and analysing complaints; providing customer feedback forms; listening to staff's experience of customer views; and acting as a 'mystery shopper'.

The research is carried out using a process similar to that for scientific research with the development of a hypothesis, choosing a methodology to test it, producing the results and analysing them, followed by forming conclusions and recommendations. Commercial companies may involve users or potential users of their services on panels to try new products or services; but they rarely use them in the way the health service does.

There is a lot to be learned from the way the commercial world tackles the problems of making sure it is driven by the needs and wants of consumers, and that the products and services it develops and delivers meet the needs of the customer more fully than those of other companies and are advertised more effectively than their competitors. The health service is starting to use surveys and other market research tools to understand the user better, but these are small steps carried out falteringly by a service that is not yet sure of how to deal with this process.

Instead, the health service has chosen the route of patient involvement. The chosen path may have more to do with pressure from users and user organisations than a process thought through by the organisation itself. However, given that this is the preferred option, users, user groups and those who run the service need to become familiar with this concept, and learn to understand its weakness and make the greatest use of the undoubted benefits this process offers.

Where the commercial model does not fit the health service

In the commercial arena, the main concern is with customer satisfaction. Customers will not buy something unless they think they need it or want it, are aware of its existence and have the means of obtaining it, including the money to make the purchase. They will report satisfaction if they are treated well and if the product or service does or appears to do as they expect and wish.

In the health service, things are more complicated. Health care is often the equivalent of a distress purchase, and needs most often to be provided near to the person's hometown, reducing options for the user. Much of the treatment provided by the health service is of necessity, painful, frightening and worrying for the person. Users can judge how well they were treated and how satisfied they feel with that. They can often judge how effective the treatment was, but they do not usually have access to information that allows them to judge this in comparison with other services, and especially where service and outcome are separated in time and where there are small differences in efficacy of treatments. Patients who die in the course of their treatment are not in a position to provide feedback at all.

In essence, to do a good job, the health service needs to understand the user and needs to have good quality evidence based information on what is effective and what is not. It needs to bring both aspects together to develop policy and strategy, and design, develop and deliver local services. The straightforward commercial market research model only provides part of the answer for the health service; medical research information is vital also.

The development of user involvement in the heath service

The Maternity Services Advisory Committee (MSAC) was established by the government, primarily to review maternity services in the light of recommendations in the House of Commons Social Services Committee's report on perinatal and neonatal mortality. The MSAC's report (Munro *et al*. 1982) *Maternity Care in Action* included a recommendation that health authorities should establish local Maternity Services Liaison Committees (MSLCs) to bring together all health professionals to ensure integration between specialist and community services and that these committees should have lay membership. This recommendation appears to have been the start of user involvement within the maternity services and was indeed considerably ahead of many other health fields. They stated in their report

> *We are confident that if district MSLCs achieve the consensus that has been achieved between the different groups on the Maternity Services Advisory Committee, the quality of antenatal care is bound to benefit.*
>
> *(Munro et al. 1982)*

Therefore, local women began to have a place at the table with the health service providers in their area, although, from the quotes below, they found it rather difficult to get their voices heard and to feel they were able to have any real impact on decision-making. When asked about the challenges they faced in their roles as user representatives in 1997, women said

> *Personal relationships are good. However often I haven't a clue what they are talking about. They all work together so they don't bother to give me any background*
>
> *It's hard to feel an equal member of the team*
>
> *(Fletcher et al. 1997).*

To address these difficulties, the University of Hull and the NCT, funded as a Changing Childbirth initiative, developed a training programme for user representatives called *VOICES*. This training was based on a large training needs analysis through questionnaires from 182 current user representatives and focus groups with potential user representatives from a number of different ethnic groups (Fletcher *et al*. 1997). The analysis suggested that women were seeking to understand the structures within the NHS and the relevant commissioning and decision-making processes. They also wanted training in assertiveness and communication skills, methods of gathering user views and searching for evidence to support a case for change.

Today, this training has developed and while still on offer solely to user representatives, it has been acknowledged that a more potent way of achieving effectiveness is for the whole multidisciplinary team to attend a VOICES workshop together to explore their remit and effectiveness.

In her paper, *Promoting Public Participation*, Nadine Edwards explores ways of turning MSLCs from mere 'advisory group talking shops' to policy-making bodies that actively promote local services for women (Edwards 2006). She cites examples of good practice from five different committees and highlights ways in which the VOICES training enabled committees to become more effective.

User involvement – the principles

Those wishing to influence the heath service wanted to have an effect at three levels: on the policy or strategy of the whole health service; the design, development and operation of local services; and the care of one or more particular individuals.

Individual users can have the great advantages of recent experience of the service to which they bring their passion and interest, and an understanding of what their needs and wants were and how they were or were not met. They will not be distracted by the constraints of the service in thinking through what is needed. However, individual users may be representative of only one point of view or of a minority group. They may also be so unfamiliar with the service that

they cannot communicate with the health service providers on the same terms and be unaware of real constraints (Edwards 2006).

The United Kingdom's Health and Social Care Act 2001 now places a statutory duty on all health professionals to involve patients and the public in decisions relating to health-care planning and development (DH 2001). A King's Fund Patient Involvement Project was designed to assess changing relationships between professionals and patients or clients in a changing health environment (Gillespie *et al*. 2002). It involved 45 semi-structured interviews with professionals and patient or user groups. The report identified that most of the literature and much of the activity in the NHS to that date had focussed mainly on the macro level of public participation and lay involvement, with much less emphasis on the face to face, individual doctor–patient encounter. The authors highlighted some of the challenges including addressing issues such as how the medical culture, attitudes and perceptions influence communication and involvement at all levels. Perceptions and definitions of what user involvement is will vary widely depending on whom you ask, and sadly there is still much scepticism around. The dangers are that user involvement can be seen by health professionals as merely another government target to be met, creating extra work in an already overloaded schedule, and giving an opportunity for users with an axe to grind, who are not truly representative, to use this as a motive for becoming involved. These concerns are outlined in Table 11.1.

This attitude, often born of anxiety and defensiveness, has led in the past to a great degree of tokenism or a tick box exercise, often with one lonely patient invited to attend a meeting where they have been offered no real support or encouragement to help them become truly integrated as a valued team member rather than a 'bottom on a seat'.

> *This is a committee shrouded in antagonism. The lay reps feel like pawns in a political game (a VOICES participant).*
>
> *(Fletcher et al. 1997)*

Table 11.1 Patients' and NHS staff concerns regarding user involvement

Patients' concerns	Staff concerns
They may cause offence	Their relationship with patients might be affected
They will not be taken seriously	Their work will be criticised
They will look foolish	There will be unrealistic demands for change
It might impact their care	Patients will lose confidence in them as practitioners

Source: NHS Modernisation Agency (2005).

However, the opportunity for teamwork and improved understanding are great. Sue Granik, a member of the Royal College of Obstetricians and Gynaecologists Consumers' Forum, has stated

> *Consumers who get involved in structured involvement projects do not do so to antagonise, blithely challenge or complain about members of the medical profession. They do so to provide constructive insights into how consumers and doctors can work together to mutual advantage.*
>
> *(Granik, personal communication)*

> *I understand the system much better now. I think I have become less defensive as a user and more prepared to work with health professionals to achieve an end result of an improved services to women.*
>
> *(VOICES participants Fletcher et al. 1997)*

In reviewing your own user involvement activities you could look at different types of activity and ask the question:

> *In this involvement, are we engaging with users as passive recipients of an already decided NHS driven agenda or as active partners from the early drawing board stage?*

Information giving

Information flows from health professionals to service users; but who decides on the agenda and what type of involvement is being used? Is this involvement as a passive recipient (A) or an active partner? (B)

NHS ⟶ Patient/User

Are women asked to comment on leaflets written by staff with content already decided as (A) passive recipients?

Are women engaged as more active partners (B) fully involved from the start of the process in leaflet content and design, when and where best to distribute, etc.?

> *When members of the Maternity Users Group, who had experienced a miscarriage, were invited to work with NHS Trust staff to redesign the miscarriage leaflet, the publication that resulted contained a more sensitive tone and language that had been lacking in the original text. This was greatly influenced by the first-hand personal experience of the women and complemented the detailed technical knowledge and experience of staff. It also included information that staff took for granted but women felt had been lacking. Although the process might in the long run have taken a little longer, it resulted in a much more user-centred leaflet.*

Consulting/gathering views

NHS ⟵ Patient/User

The arrow here denotes the direction of the flow of communication – asking people what they think of services.

Users may complete questionnaires or attend a one-off focus group to give health professionals their views. What is the level of involvement here? Is it passive and reactive feedback to issues prioritised by staff or is it an active partnership where women and their partners are encouraged to include issues of importance to them in the survey/questionnaire?

Were users consulted from the start about the content of the questionnaires or the focus group schedule? Are users going to be involved in discussions about the results of the consultation process and in suggesting improvements?

Following several adverse comments from parents and user representatives that parents were being given an unduly pessimistic view of the labour ward during labour ward tours, user representatives, health professionals and audit staff worked together to design questionnaires to find out people's expectations and experience of the labour ward tour. They all reviewed the results of the questionnaires together and suggested and explored options for improvements.

Where patients have been involved in full partnership, for example, as members of an all-staff exercise process mapping the patient journey, staff have commented on how surprised they have been at the new insights they have gained (personal communications from health professionals to GF) over many years of working in different health fields. Results can include cost savings, reduction of waiting times and improved staff and patient/user satisfaction. Service users are, after all, the only ones who experience the 'whole journey' and unlike staff who might only see the bit where they come into direct contact with the pregnant woman/patient, they can readily identify duplication and overlap as well as gaps.

Partnership working

NHS ⟷ Patient/User

Women may be engaged in longer term, more formal types of involvement at the local level as members of a maternity user group, labour ward forum, MSLC, local research ethics committees, and at a national level on Royal College consumer forum or patient liaison groups or research trial steering groups. The extent to which this type of involvement can be deemed to be true partnership working depends to a large extent on what we call the Four R's.

Remit, roles, responsibilities and relationships

The remit of the group or committee is vital and all members need to share in discussions about how to make it more effective, i.e. how much power to influence change does it have?

- Is each member clear about his or her relative roles and responsibilities?
- Have these aspects ever been discussed?
- Is each person clear about his or her role and what they are expected to bring to the table?
- What is each person responsible for and to whom is the group/committee accountable?
- What is the relationship of the group to other decision-making bodies within the organisation, the local maternity community and with service commissioners
- Do all group members work to develop trust and mutual respect rather than token acceptance?

It is important to emphasise that involvement is not just for closer scrutiny of services. Greater involvement will result in mutual benefit to patients, carers and providers alike. Not only do patients bring their personal perspective of using the health services, they also bring with them all the expertise, skills and knowledge from their working lives that may help NHS staff see problems differently, and can result in more creative solutions.

A well-established MSLC with strong working relationships between service users and health professionals provides a ready-made forum to ensure that the National Service Framework (NSF) local implementation plans are taken forward. In many cases, dedicated professionals and service users have become frustrated at the way in which their committee has become a mere information exchange, the *talking shop* previously referred to. In the current NHS financial climate, it seems appropriate for MSLCs to review their ways of working and ensure they are fit for purpose. Rosenberg and colleagues commented that 'Mothers need to know that their care and their choices won't be compromised by birth politics.'

The Department of Health in England has recently published new guidelines containing an audit tool for MSLCs (DH 2006) and the Maternity Care Working Party (MCWP) has recently published a second edition of the Commissioning Toolkit for Primary Care Trusts (PCTs) (Maternity Care Working Party 2006). The toolkit outlines six steps to modernising maternity care such as bringing together all stakeholders, agreeing on local needs and monitoring and reviewing progress. These should provide MSLCs with a timely opportunity to reflect on and celebrate their successes and build for the future (DH 2007).

How to engage service users effectively

In many areas, MSLC members have recognised how difficult it is to engage women and their partners in becoming actual members of the formal committee.

Success in recruiting a wider range of service users' views for the committee has followed initiatives such as actively recruiting and supporting a couple of members of a particular community to be the link persons with the committee, for example, teenage mothers' groups, Asian link workers and prison support workers. The most successful have been where the support includes prompt reimbursement of travel costs and childcare arrangements.

One MSLC set up a separate rolling user group that met in between the main MSLC meetings; group members decided on timing, venue and agenda for meetings. The timing of the meetings was important so that the Maternity User Group members could take items from the main committee agenda for discussion and issues they had raised could be fed back to the main committee. By publicising what the group had achieved in terms of changes to the maternity services, they were able to recruit newer mothers who had more recently used the services.

As part of a strong campaigning initiative in Angus where local women and midwives worked in partnership to prevent the closure of three local units, the resulting review has led to a strengthened MSLC. One of the units, Montrose, which recently won an RCM award, now caters to the needs of more than half the women in that district. Evidence of how strong local partnership working has led to a cultural shift, and increased confidence in midwifery services among local women.

By using part of their budget to provide crèche facilities during committee meeting times and paying travel expenses on the day, another committee was able to recruit mothers from a wide range of backgrounds.

The benefits of user organisations

User organisations bring together groups of users of a particular service. The users have an opportunity to share with each other their concerns about services. Large user organisations help users in different parts of a country or across several countries to share their thoughts.

The next development is often for surveys or focus groups to be run among users in order to collect views. This helps individuals who sit on various user bodies to become more representative of other service users' experiences. Subsequently, survey work including wider groups of parents using the health service and, in time, specific research among groups of parents whose views are hard to reach and research became part of the work of these charities.

As these organisations developed and became more sophisticated, they also became interested in understanding the medical and social research evidence base for different kinds of approach. The NCT publishes a journal, *New Digest*, which provides information on both medical and social research for its user representatives, so that they can talk from an informed and authoritative position when working with the health service.

Service users may also be provided with training by their organisation. This may include reading and understanding research; confidence building including mentoring and other forms of support; presentation skills; understanding how the health service works; and being an effective committee member.

User organisations may work with others in coalitions where there are common interests. In this way, they help the health service by producing one single view on an issue from many organisations, where previously, the health service may have encountered many slightly different approaches being proposed.

The strength and respect that these organisations can command help ensure that the user voice is represented at all levels in the health service. User bodies enable people to work with an individual department in a local service and at a health area level as well as at a country level and on bodies that cover the interests of the whole United Kingdom. User representatives from user organisations also work with government departments and lobby ministers and make representations to other non-governmental organisations. Following strong lobbying from the NCT, the Health Select Committee hearings on maternity services included evidence from service users.

The aspects and levels of influence are also recognised by user bodies and they seek not only to influence what is discussed, but how and where it is done. For example, they ensure that user fora are set up in a way that enables users to take part. Mothers with young children, for example, find it hard to attend meetings that start at 9.00 AM or continue over school pick-up time. Users need to have their expenses covered as a minimum, and childcare facilities need to be provided or paid for. Without the work of users in lobbying for changes that, in turn, enable user participation, the health service would be much less able to hear the views of those who have recently been at the receiving end of services.

Service users involved in Guideline Development Groups working on National Institute for Clinical Excellence (NICE) guidelines have, in the past, clearly influenced the final content and wording of the guidelines. Although it is difficult to do, where necessary and with the support of their voluntary organisations such as NCT, they have challenged other group members where they feel strongly that the suggested final wording has not represented the spirit of the evidence. In the case of the NICE guideline on foetal monitoring, the service users at the guideline development meetings came under pressure to support the view of the medical professionals that all women should receive continuous electronic foetal monitoring during labour. The user organisation involved was so concerned that a woman-centred evidence based approach to drawing up the guidelines was not being fully adhered to that they felt it necessary to publicly withdraw from the group. This action led to the guideline development group further reviewing the evidence and the final guideline being more women centred as a result. Without the support of the NCT, which provided the service user members with the clinical evidence on the effects of monitoring, they would not have been able to challenge the non-evidence based views being presented by their medical colleagues, and achieve a guideline that recommends intermittent monitoring except in high-risk cases. As a result, routine monitoring rates are falling sharply and it is likely that unnecessary caesareans are being prevented.

In addition to contributing to the development of NHS NICE guidelines, members of maternity service user groups contributed to the development and peer review of evidence based guidelines for midwifery-led care in labour, commissioned by the Royal College of Midwives (2007). Building on the involvement of

local service users to the evaluation of the first edition, in the third edition, service users from national organisations contributed to the identification of topics for inclusion in the guidelines and to peer review using a validated appraisal instrument. This initiative has been described elsewhere, and service user involvement was acknowledged as positive and thought provoking by the guideline developers, and their comments and feedback influenced the final version of the guidelines (Spiby and Munro 2009).

Whilst individual service users have the potential to make significant impacts, the role of the user organisations is crucial. It is these bodies that help individual users to be more effective on groups such as MSLCs. They support users in how to be a committee member and how to influence and work within these structures. They provide users with access to evidence based information written in a way that the non-research-orientated user can understand. They reduce the user's fear and feelings of intimidation when confronted with opposing views from a senior clinician. They make sure the user does not feel alone and they create a means for users to talk to each other to share their passion and their experiences as committee members, so that when they work with the health service they are more able to present a well-argued case, as well as to express the passion for the service and how it is delivered.

How to make effective use of user organisations

Users and user organisations are here to stay. The health service has an opportunity and a duty to learn how to make the best use of the time of those who are willing to commit themselves to helping the health service meet the needs of those having a baby.

The health service needs to know the user organisations and build a relationship with them, actively welcoming their representatives and consulting them before major changes are planned. These bodies may have publications that will help the health service understand what users want and how they think. They may well conduct market research or other surveys, which are made available publicly, for example, the NCT Choices, Access and Better Birth Environment surveys. The latter has influenced the health building notes for maternity units (Gready *et al*. 1995; Singh and Newburn 2000; Newburn and Singh 2003). They run conferences and training to help the health service understand the wants and needs of users.

Increasingly, the user bodies work closely with the policy makers at the government level and with the Royal Colleges to present a single view to governments and assemblies. They are powerful and influential and those in the health service can make use of their voice to bring about change by keeping them informed of situations where the users and health service personnel want to develop the service, but policy or other constraints prevent them.

Since 1998, service users (consumers) have been involved in the NHS Health Technology Assessment (HTA) Programme. A pilot study found that consumers made unique contributions to the HTA Programme (Royle and Oliver 2004). Consumers tended to highlight issues about patients' views, social contexts,

information and support needs and long-term outcomes. Their involvement exposed processes that needed further thought and development.

In other health fields, there are examples of where input from service users has changed and improved research protocols. INVOLVE (formerly Consumers in NHS Research) has produced briefing notes for researchers *involving the public in the NHS, public health and social care research* (www.invo.org.uk).

Conclusion

Without organisations such as the NCT, the risk is that maternity services would still be run on paternalistic lines with decisions being taken for the convenience of the service, and in response to diktats from those at a great distance from the parents-to-be, who actually use the service.

Services for those taking the magical journey into parenthood are much more likely to meet the needs of those parents now than ever before. The health service, the users and the bodies that support and strengthen them are needed as much as ever, because the pressure of commercialism and the desire for efficiency, cost reduction and order are always in danger of driving back personal, family-centred services.

The benefits of users and users groups for the health service can best be summed up by Elisabeth Manero's talk on the community context for the development of the Edgware Birth Centre at the *Modernising Maternity* conference held in March 2000. Barnet MSLC's approach to turning 'no' into 'yes' on the request for a stand-alone midwife-led unit at Edgware was to insist on evidence as the universal language of decision-making, and that women's views on what they want from childbirth must count. Slowly but surely, national developments on childbirth were allowing women's perspectives to infiltrate NHS policy. Locally, professional opinion eventually supported the unit. Those who have delivered there speak of a very different kind of birth experience. If the NHS asks its users what sort of service they want, the NHS is more likely to be successful in meeting user's expectations (Manero 2000).

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12. *Evidence Based Midwifery*

Current Status and Future Priorities

Helen Spiby and Jane Munro

Introduction

In this chapter, we will start with a review of the extent to which midwifery has developed in its involvement in evidence based practice over the past few years, draw together some of the issues and themes from earlier chapters and close with a summary and comment on future considerations, directions and support for the future of evidence based midwifery.

10 years ago

In a book published at the start of this millennium, Proctor and Renfrew (2000) set out their aspirations and recommendations for the involvement of midwives in the development of evidence based practice over the next 20 years. Although their text focused on the UK context, its messages held true for midwives in other settings. They commented on midwives' commitment to using research, the challenges they encountered and the need for support. Combining use of evidence with clinical expertise was acknowledged as a skill in itself and, they stated 'Research is never a comfortable option' (Proctor and Renfrew 2000, p. 196) in a practice setting that is constantly evolving. They drew attention to both the increasing body of evidence available to midwives and number of practitioners trained in its use; these had both developed significantly during the previous 20 years. At the time of their publication, further changes were anticipated. These included increasingly academic approaches to preparation as a midwife that should support a culture that fosters evidence based practice; informed service users who would challenge midwives; structures that would support the development of research capacity in midwifery; frameworks such as clinical governance that would act in support of evidence based midwifery; improvements in information technology that would improve access to evidence and National Health Service (NHS) re-organisations with better linkages for midwifery with primary care. Their recommendations included access to high-quality information and data; changes that include education being provided by research-active

lecturers and addressing the disconnections between research, education and practice. They identified a role for statutory bodies and the importance of working with women and of midwives being visible at the level of national research policy and programmes and collaborating actively in multidisciplinary research and development strategies. Further increases in midwifery research capacity and security through research programme funding that would avoid the limitations of short termism were also identified as positive goals for the profession to work towards and for the maternity services to derive benefit from.

So, almost 10 years on, how is midwifery faring against that framework and to what extent are the aspirations outlined by Proctor and Renfrew being met? We will consider this by examining some of the issues identified in the previous chapters, together with midwifery literature and the contemporary midwifery context. Chapter authors have contributed from a range of perspectives (midwifery research, supervision, education and clinical practice) by drawing on UK and international perspectives. Several issues are raised by more than one author. For example, the discomfort of work related to evidence based midwifery is echoed by both Phipps and Walsh in the context of different aspects of midwifery education and by Shallow from the practice setting. Issues raised under the following over-arching themes will be discussed: considerations related to the evidence; preparation and support for evidence based midwifery; midwifery culture and philosophy; closing the gap between research and practice; leadership and implementation.

Considerations related to the evidence

For midwives practising in many settings, there is a burgeoning quantity of research available, and methods to disseminate it depend increasingly on the use of information technology. The past 10 years has seen a significant increase in the quantity of web based information and Sinclair's contribution alerts readers to that and offers guidance to midwives in achieving publication. Her appendix to this volume reminds midwives of the importance of disseminating their scholarly activity as the first step in allowing that evidence to be subject to critical appraisal and encourages discrimination in the appraisal and use of evidence. This sentiment is echoed by Bick in a cautionary note reminding midwives of the importance of appraisal 'before changing practice overnight' (Bick 2006). This is demonstrated by Vadeboncoeur's account of the interpretation of evidence and its impacts on the availability of vaginal birth after caesarean in Canadian settings. However, it must be noted that some midwives will still not have easy access to web based information for reference during clinical practice; this is particularly the case for community based midwives.

The chapters by Shallow, Amelink and colleagues reflect the interaction between guidelines and practice standards on midwives' work and experiences. This has altered significantly during the past 10 years. In the UK context, the work of the National Institute for Health and Clinical Excellence encompasses health technology appraisals, evidence based clinical guidelines and public health guidance for

use in providing care for childbearing women in England and Wales. Guidelines should provide a means of ensuring that an evidence based approach to care is offered and a significant amount of evidence synthesised to a level that would be impossible for most practitioners. However, whilst generally accepted as a positive contribution to care and a cornerstone of service provision, potential impacts on individual midwives' engagement with evidence based practice must be considered. The provision of pre-synthesised information, with versions for both practitioners and service users, provides a contemporary resource that may facilitate discussion between women and midwives. However, the widespread availability of guidelines raises questions about midwives' engagement in the full cycle of activity that is defined as evidence based practice (NHS Public Health Resource Unit 2002). This cycle includes formulating research questions, searching and appraising evidence to inform clinical practice, utilisation and evaluation. It could be argued that, with the widespread availability of guidelines that cover most aspects of maternity care, midwifery involvement is relegated to a more passive role in following pre-set guidelines. This may mean that skills in components of the evidence based practice cycle that midwives acquire during training may be lost through under-use and consequently a less critical approach may be taken in consideration of the evidence. The impacts of this on individual midwifery practitioners and their practice is an area that may benefit from empirical enquiry. The opportunity to exercise skills in accessing evidence still exists; women and their families will continue to raise questions about the appropriateness and effects of different care that are not yet included in guidelines. The evidence should still be presented to women and discussed in the context of their situation and needs. There will always be women, who despite meeting the clinical criteria encompassed by a guideline, find that its contents hold little relevance or appeal to their situation. Perhaps there may be additional or different skills that midwives need to develop in the context of guideline-led care?

Despite a slow start to involvement in guidelines (Spiby 2001), there are welcome signs that midwives are increasingly engaged in this area at both a national and local level, through stakeholder involvement, as described in the chapter by Paeglis and contributing to Guideline Development Groups and the associated difficulties (Rogers 2003) or in criticising and getting guidelines changed if they are not right. The National Institute for Health and Clinical Excellence (NICE) Intrapartum Care guideline is one example. In addition, Richens (2007) identified key issues when considering the implementation of the postnatal care guideline. These debates are taking place in journals, widely accessed by midwives from a range of roles.

Other debates can be located in this text and the wider midwifery literature. In her chapter, Lavender encourages an open and honest reflection of the potential influence of midwives' own views and perceptions in their interpretation and selective use of evidence. This is echoed by Walsh (2008) and Sandall (2008). Health-care professionals' (including midwives) use of evidence was investigated in Marshall's (2004) doctoral research, in the context of breastfeeding support for new mothers. The concept of selectivity in using evidence was again identified; this may be appropriate, as midwives select the evidence that is most appropriate for the care of an individual woman. However, care is needed to ensure that

midwives do not choose to use the evidence they agree with, whilst disregarding evidence that does not accord with their prior beliefs. The importance of listening to women to hear what advice worked at particular times or in particular situations was regarded as very important. Evidence congruent with existing beliefs and integration of information from a wide variety of sources was identified in health-care professionals' support to women. The fact that few health-care professionals had the skills to appraise research evidence was noted but instead, they utilised general messages from evidence sources. Research-derived knowledge was considered to 'find its way into practice in indirect ways' (Marshall 2004, p. 183) but did not provide certainty. These findings offer important directions in planning future education for evidence based midwifery.

The extent to which midwives are asking questions about evidence, its utilisation and methodology appear to be increasing. In the context of caesarean section on maternal request, Kingdon and Lavender (2008) encourage midwives to debate the relevance of Cochrane reviews when there are no trials available. When considering evidence related to management of the third stage of labour, Soltani (2008) asks questions about clinical and statistical significance in the context of using evidence in different health settings.

Vadeboncoeur observes that policy can be based on disconcertingly low levels of evidence. This may be due to a range of factors: the limitations of the evidence may be neither understood nor acknowledged. One of the most significant impacts of this is on women, who may be denied choices without being made aware of the limitations of the evidence behind policy. The extent to which the wider midwifery community is aware of this is unclear in the contemporary climate. The availability of pre-synthesised information for several aspects of maternity care may provide a spurious sense that evidence exists in all areas and that there remain few unknowns; however, this is not the case.

In our earlier chapter, we raised questions about the appropriateness and limitations of hierarchies of evidence in the context of midwifery practice. Such hierarchies also have limitations in particular aspects of evidence, for example, those related to public health guidance. Hierarchies do not foster consideration of feasibility when considering the implementation of evidence and do not support the incorporation of the views of practitioners and services users. The latter are acknowledged as significant factors in the implementation of evidence and yet are often not formally recognised or addressed; an example of this is provided in a paper by Renfrew *et al*. (2008) in the context of public health guidance related to breastfeeding.

For many years, methodological debate in midwifery research focused on the relative benefits of the quantitative and qualitative paradigms (Walsh 2007) with proponents of each defending their position. The value of mixed-methods approaches to answering research questions is now widely accepted (O'Cathain and Thomas 2007), although further exploration of appropriate use of mixed methods is required. Lavender suggests that midwives may feel that there are tensions when it is population based outcomes that are reported in much published research but individual situations that are encountered in practice. Midwifery practice requires consideration of different types of evidence and the

importance of the philosophical alignment of the evidence source with midwifery practice was raised in our earlier chapter and echoed by other contributors (Walsh, Amelink and colleagues). Work in guidelines and practice standards depends upon utilisation of a wide range of literature; this was demonstrated in the context of developing a practice standard for anaemia by Amelink and colleagues, who also comment on the importance of bringing the range of literature together to provide a coherent and complete view, rather than by considering the results of individual studies that leave unanswered questions about certain aspects of the area of practice.

Lavender provides a mixed review of midwives' activities related to evidence based practice. She suggests that greater levels of involvement could be achieved in audit and in improving critical reading abilities. However, she sees a significant potential contribution to the national research agenda and in contributing to filling gaps in the evidence. Proctor and Renfrew (2000) identified the need for programme funding to allow research programmes to develop; this is important in achieving security and in building a body of knowledge. The NHS Research and Development programme provided a strong foundation but has now been transformed; significantly more research funding is now being coordinated under the auspices of the National Institute for Health Research (NIHR) (www.nihr.org.uk). Programme funding is now available, as is substantial funding for capacity building. As components of the NIHR, the Health Technology Assessment programme is internationally respected and the Service Delivery and Organisation of Care programme is now established. Midwives are accessing these sources of funding but this remains predominantly at the level of the individual project rather than programme grant. In the United Kingdom, midwifery is contributing to activities that support research commissioning through both research councils and the NIHR.

Preparation and support for evidence based midwifery

The chapter by Fiona Phipps describes an approach to preparing students to practice evidence based midwifery. The use of problem or enquiry based learning appears to offer an approach to the development of skills that alternative pedagogies do not always support and assumes that evidence based practice is integral rather than an optional addition to the practice of midwifery.

Paeglis describes the system of midwifery supervision, unique to the United Kingdom and supported by the secondary legislation. She describes the various linkages between the statutory function of supervision and evidence based midwifery. Possible avenues for the evaluation of midwifery supervision, its structure and preparation programme and their contributions to supporting evidence based midwifery practice are outlined. The contribution of the statutory function of supervision of midwifery to the provision of evidence based practice, as described by Paeglis, reflects a situation where a potential source of support for evidence based practice appears not to be achieving its full potential. Empirical research could identify what is required for that full potential to be achieved.

Challenges in conducting research in this area include the identification of possible funding sources and of evaluating a generally well-regarded and unique area within UK midwifery.

Belinda Phipps and Gillian Fletcher trace the development of 'consumer' involvement in the maternity services. This arose from women's dissatisfaction with maternity services and has moved significantly to service users' current position of willingness to work alongside health-care professionals in achieving service improvement. At a local level, this may take the form of membership of Maternity Services Liaison Committees and gathering feedback from service users, through to contributing actively at a national level to research commissioning and guideline development groups. Phipps and Fletcher encourage providers of maternity services to utilise the support that service user organisations can provide in developing and maintaining woman-centred services. Their chapter describes a potential source of support for evidence based practice, often untapped by midwives working at a local level. The presence of service user representatives on local and national groups offer potentially strong alliances for midwives working at all levels.

Walsh's account of providing a course for midwifery practitioners to support their provision of evidence based care in labour includes a clear statement about the philosophical issues that needed to be considered. Some of these, including consideration of types of evidence to be included, have been echoed elsewhere (Spiby and Munro 2007). Walsh also relates midwives' journeys in re-appraising the midwifery role during his course. These can be energising or uncomfortable. There are clear indications from several chapter contributors that evidence based midwifery remains an uncomfortable place to be in. This resonates with the views expressed by Proctor and Renfrew, described above. Shallow describes the difficulties and challenges of achieving 'sign-off' of midwifery guidelines in a medically dominant and risk management focussed setting and the real disappointments when midwifery peer support was absent. However, whilst those experiences are difficult and disheartening, they are not the experience of evidence based midwifery for all midwives and several contributors (Walsh, Lavender and Amelink and colleagues) write of it as an opportunity for re-engagement with an individual's original views and aspirations for midwifery. We also reported this in our earlier work (Munro and Spiby 2001). It is possible that the opportunities to re-engage in the true spirit of midwifery can balance the discomforts that can be encountered in evidence based activity and encourage midwives in their continued involvement and development.

In the preface to this book, we described the development and activities of the Evidence Based Midwifery Network (EBMN). Its original aims were to offer a forum for midwives in the United Kingdom to share ideas and experiences of evidence based practice, to encourage collaboration and to work together to influence the direction of local and national agendas. Its subsequent development incorporated the fostering of research collaboration. Activity and membership have dwindled, despite a committed core group. Are there messages here for

evidence based midwifery activities? Is it that midwives no longer feel isolated in their evidence based activity and therefore do not require the support that the Network aimed to provide on its inception? Perhaps the wider involvement in, for example, stakeholder consultation on NICE guidelines offers a range of avenues for contribution to debate and participation in these issues. Some international linkages have been fostered through the activity of the Network. Its membership continues to draw from across the range of midwifery roles but constraints of time and funding prohibit midwives from attending meetings when other clinically focussed professional development must take priority in the allocation of time and other resources. NHS Trusts may also feel that support structures for staff working in these areas are already available locally, for example, within Trust's own clinical governance systems.

In considering the resources that midwives need to engage in evidence based practice, the previous chapters have identified sources of real or potential support. There are other resources, however, to which many midwives may not have access. There can be difficulty in accessing sources of evidence in the practice setting. The extent to which high-quality health outcome data is accessible varies considerably. In planning empirical research, investigators often encounter an alarming lack of baseline data that should be readily available to service providers, as well as researchers. The case of breastfeeding offers one example. A relatively short time ago individual organisations could only provide data for breastfeeding rates at the time of transfer home following hospital birth; breakdown by, e.g. electoral ward, to inform the planning of public health interventions was not available in many services. This situation is changing and each Primary Care Trust is now required to provide data on initiation and 6- to 8-week breastfeeding rates; this offers an example of what can be achieved with pressure from policy.

Midwifery culture and philosophy

The cultural context in which many midwives practice remains complex and challenging. Midwifery and the maternity services are not always comfortable places to work in. The professional and organisational culture of midwifery is long recognised, in some settings, as possessing disabling rather than enabling characteristics for its workforce (Kirkham and Stapleton 2000). Shallow demonstrates that fear of litigation and considerations of negative impacts on Trust insurance payments appear to have as great an influence on professional practice in some settings as the importance of developing appropriate guidelines. This is unsurprising when a considerable proportion of monitoring activity in which midwives engage has an orientation towards adverse outcomes. Whilst this is vitally important for the health and well-being of women and babies, it is important that equal consideration is given to areas that are health promoting. Shallow writes of the need for openness in trying to achieve 'sign-off' of practice guidelines for women wishing to birth naturally following previous caesarean.

This approach is echoed by Gould (2008) who suggests that we should not continue with previous midwifery behaviours, such as subversion, to achieve goals in midwifery but rather, teamwork, dialogue and overtness.

Although Fiona Phipps provides an encouraging account of *preparation* for evidence based midwifery, Lavender indicates that there are still questions related to the extent to which midwives are *prepared* to discuss the evidence. It may be that insufficient information is known about the working and cultural conditions required to support this. Mead argues for truth and clarity in language and in what midwives are telling women about the components of care. She highlights differences between midwives in three European countries in both their practices and perceptions of the risk status of a labour, given the same clinical scenario.

Philosophical debates about the purpose of midwifery are also dynamic. The concept of supporting normality still resonates within midwifery discussions but is now accompanied by an acknowledgement that midwifery should also be working to achieve optimality (Cragin and Kennedy 2006); this, it is suggested, will allow a wider body of evidence to be utilised to inform care (Walsh 2007).

Arvanitidou describes the attempts and activity towards engagement in evidence based midwifery in Greece. An essential pre-requisite to engage in evidence based midwifery is to secure the position of professional midwifery and to have responsibilities as care providers for normal pregnancy and birth. Greek midwives' early developments towards that were described. Also acknowledged was the importance of midwifery influence at strategic levels and a future location within the country's public health system rather than private practice.

Closing the gap between research and practice

Proctor and Renfrew (2000) wrote of the importance of trying to reduce the divide between research, education and practice. In her chapter, Mead provides one interpretation of the move of pre-registration midwifery education from its base in the clinical environment to the higher education sector as contributing to that divide.

There are a range of approaches that have been tried to avoid the earlier disconnections between research, education and practice in midwifery. Some midwives in lecturer posts engage in research, although the combination of research, classroom teaching, student supervision and clinical linkage is challenging in the time available. Joint appointments such as lecturer practitioners were developed to link between academic and service organisations. These appear to thrive in a minority of settings and depend on high levels of cooperation between stable organisations and realism about what individuals can achieve.

Proctor and Renfrew (2000) suggested that clear thinking and planning were required about the best ways to link research and practice. The recent announcement of funding for centres to provide training to support clinical academic careers in nursing, midwifery and the allied health professions is welcomed as it should substantially increase the amount of support available for training clinical

practitioners to undertake research with a view to continuing that involvement throughout their career. What is also particularly welcome is the extent to which these future training opportunities will need to operate as partnerships between clinical and academic institutions and communities.

Other posts that have developed more recently, which have a role in evidence based midwifery include those of consultant midwives and other midwifery clinical specialists. Their role descriptions may incorporate practice, education and research or evidence based practice responsibilities, for example, the development of evidence based guidelines. The consultant midwife role has proved, in some contexts, to be impossibly large. Formal evaluations of the impacts of such posts on the development of evidence based midwifery are lacking. In addition to incorporating the responsibilities listed above, they are also considered to have a leadership role for midwifery and it is that aspect of midwifery that requires urgent consideration in the context of evidence based practice.

Leadership

Professional leadership has been identified as an increasingly important issue over the last few years in the UK context and this remains the case in the publication of the recent report *High Quality Care for All* (DH 2008). The importance of leadership in midwifery is clear. Supervision of midwifery has a contribution to make to leadership, as do the increasing number of specialist posts available. There is an increasing raft of tools to support leaders in service change. Although the diversity of midwifery posts is increasing, the midwifery presence at senior levels in organisations appears frequently to be under threat. We suggest that midwifery leadership is essential in the context of evidence based practice not only in developing and preserving the body of midwifery evidence but also in fostering a sense of its value. This is challenging for UK midwifery for several reasons; that will be further debated below. However, although there has been a proliferation of roles and titles, the proportion of midwifery leaders in the health system and their potential for influence appears not to have increased overall. Reasons for this include the merging of institutions and posts. Other potential sources of support for evidence based midwifery must be considered.

Statutory bodies have an important role to play. For example, the Nursing and Midwifery Council (NMC) has a responsibility to the public through maintenance of the professional register, setting standards for education and practice and by investigating allegations of inappropriate conduct and substandard practice (www.nmc-uk.org). Hitherto, in terms of strategic vision, the regulatory body has not appeared to offer leadership in evidence based practice. However, the new NMC code states that registered nurses and midwives must 'deliver care based on the best available evidence or best practice' (2008, p. 7). Work remains to be done on how this standard should be judged in cases of substandard practice or inappropriate conduct, and how such a standard can be promoted.

Other statutory organisations will have a key role to play. The new Care Quality Commission (CQC) began operations in April 2009 (www.cqc.org.uk). Its core

values include that it will 'be expert and authoritative, basing our actions on high-quality evidence' and its definition of high-quality care includes the concepts that it should be 'safe, with the right outcomes'. This will have important implications for standards of care in all NHS institutions.

Is there a role for professional organisations? In the United Kingdom, the majority of midwives are members of the Royal College of Midwives (RCM), whose dual functions include those of a trade union and education provider. The RCM has been engaged in evidence related activity, for example, through the campaign for normal birth and in the commissioning of evidence based guidelines for midwifery-led care in labour. However, a strategy for the development of evidence based midwifery has not been evident. Thus, whilst the RCM has had an involvement, it cannot be considered to be a leader in the area. This may be due to the difference in resources available to the RCM and other professional colleges who have long histories in clinical effectiveness and guideline publication, working from a different resource base. At the time of writing, there are indications that engagement in research and evidence based practice in midwifery will be further developed under the new leadership in the college.

There appears to be an absence of designated leadership and coordination of evidence based midwifery at the national level. The reason for this may be that evidence based midwifery experiences a lack of ownership, sitting uncomfortably across the interface between the practice development and academic communities; both have an interest but neither has the capacity to lead due to other priorities and drivers. Priorities for service providers include direct provision of clinical care, the management of resources, providing a high-quality, resource-efficient service, supporting the provision of pre-registration education placements and in meeting policy drivers. Priorities for midwives in academic posts are steered to a large extent, in the UK context, by the Research Assessment Exercise (RAE). The results of this affect research funding for academic groups; hitherto this system has required a prioritisation of outputs including publication in high-quality peer-reviewed journals and of achieving grant income. Other measures of impact such as knowledge transfer and engagement with the NHS have, to date, been awarded lower weighting in the RAE; both of these are key components of evidence based midwifery.

The importance of midwifery leadership is echoed by the Dutch contributors. From the early experiences and work towards evidence based midwifery in the Netherlands, they suggest that, to enable progress, there needs to be midwifery leadership and infrastructure to support research, midwifery activity in publication and internal support. Amelink *et al*. suggest to engage funding agencies midwives will need 'knowledge, daring and assertiveness' (p. 84), and that midwives should enhance their own visibility through publication and presentation, drawing on the strengths that could be gained from international midwifery cooperation in evidence based activity.

This draws our attention to the international arena for sources of leadership and coordination. Over the past few years, the International Confederation of Midwives has developed a network of active researchers and now achieves a much higher standard of peer-reviewed research presentations at its Triennial

Congress. This change can be ascribed to the positive influence of its Research Advisory Group and receptivity to research in its Management Board. The Triennial Conference programme has included workshops to foster skills in research methodology, ethical standards in international midwifery research (Kennedy *et al*. 2006) and evidence based practice. It remains the case, however, that this conference, similar to many other academic meetings, focuses on inviting presentation of empirical research findings rather than on subsequent knowledge transfer, implementation or evaluation. It may be helpful if more attention could be paid to implementation to address the disconnections between research and practice. This may be the reason for the relative dearth of scholarly activity related to all aspects of the evidence based practice cycle when avenues for dissemination of such work are few and apparently viewed as less important. Again, there are positive developments that may help to address this gap.

One attempt to provide a forum for such activity was the conference component of the EBMN. In its early years, these conferences had a focus on the implementation stage of the evidence based practice process. This strategy was deliberate and aimed to maintain a clearly different focus from the two well-established, high-quality midwifery conferences (now no longer held) that focused on the presentation of empirical research. The EBMN conference also aimed at offering a forum to discuss challenges and methodologies in implementation. Whilst diverse in topic, submissions were relatively few in number, attracting interest predominantly from the practice development and clinical specialist parts of the midwifery community. It became clear that there was not a large constituency needing to be served by such a conference and subsequent meetings widened their scope beyond the implementation component of the evidence based midwifery process.

It could be argued that the lack of leadership of evidence based midwifery is to the detriment of individual midwives, the care they provide and also for the profession. In the United Kingdom, there are still relatively few midwives securing the type of programme funding identified by Proctor and Renfrew (2000). Midwifery is represented on some national research commissioning bodies and the boards of charitable trusts and it is encouraging that amongst the first one hundred Senior Investigator Awards given by the NIHR, midwifery is represented. It is hoped that the profession will be further recognised in subsequent rounds.

Implementation

So far, in this chapter, we have considered support, methodological and cultural issues and leadership that are relevant to all aspects of evidence based midwifery. In this section, we will consider issues specifically related to the implementation part of the evidence based practice cycle in line with our earlier assertions that this aspect is generally under-reported.

Walsh (2007, p. 145) has commented on the 'natural tendency to be pessimistic about practice change' due to the influence of factors beyond individual's control. Whilst those factors may sometimes seem overwhelming (and some of our chapter authors reflect this view), they should not deter effort but rather identify

areas that should be targeted. It appears that more work towards supporting midwives' clinical decision making would be helpful. We identified work that has explored how midwives make such decisions in our own chapter. More recent studies include that of Cheyne *et al*. (2006) but the use of decision-support systems merits further empirical research in midwifery settings. The Early Labour Study in Scotland (TELSIS) trial provides an excellent example (Cheyne *et al*. 2008).

There are areas of midwifery practice where there is a substantial body of evidence available for implementation. Walsh identifies normal birth (2007); the same can be held for breastfeeding support (Dyson *et al*. 2006; Moreton *et al*. 2008) and intrapartum and early postpartum perineal care. It appears urgent that we identify the missing links that would enable the implementation of such evidence on a wider scale. The PErineal Assessment and Repair Longitudinal Study (PEARLS) may yield this information in the context of perineal care http://www.rcm.org.uk/resources/midwifery-research/pearls/

The NICE Intrapartum Care guideline offers an opportunity for large-scale evaluation of the impact on practice of a clinical guideline. It is likely that a range of implementation support measures may (or may not) be in place in different NHS Trusts, including the use of implementation guidance published by NICE itself. Information about implementation processes should be collated from NHS Trusts, together with data related to the rates of use of common intrapartum practices included in the guideline. This would yield important information about the impact of the guideline on intrapartum care and provide information that could be used in the development and testing of future guideline implementation strategies in maternity settings. Qualitative enquiry within purposively selected sites could be used to determine the cultural and process characteristics associated with different degrees of practice change. Guidelines related to other aspects of care could equally act as a vehicle for the type of evaluation described above.

Many of the implementation initiatives reported to date have affected single aspects of care, for example, care of the perineum or particular episodes within the childbearing process, often but not exclusively, labour and birth. Evaluations have incorporated historical comparisons (Munro and Spiby 2003; Spiby *et al*. 2005), often for reasons of finance or time constraint. Perhaps, not surprisingly, the practice change initiatives reported in the midwifery literature have focussed on implementing changes to midwifery practice and evaluating impact. The extent to which the potential barriers to change have been considered or an analysis of the local culture carried out prior to planning and developing the initiative (NHS CRD 1999) are not widely reported from midwifery settings.

However, some aspects of service provision will be shared or influenced by other professional groups, including obstetricians and paediatricians. Perineal care and support for breastfeeding women offer two examples. For some aspects of care, changing practice in line with the evidence will require initiatives that address multidisciplinary working across the primary and secondary parts of the NHS maternity services, inter-sectoral working and contributions from third-sector organisations. These bring challenges of developing shared understandings, clarity of purpose and integration of the views of all potential stakeholders. Work carried out by the Mother and Infant Research Unit (University of York) to develop

support for breastfeeding in line with the evidence has included novel approaches to the incorporation of evidence into practice through the development of new roles including skilled lay supporters working with women and educating health professionals and initiatives that work within and across organisations and sectors. An important feature in developing from this work was in its engagement with NHS staff in a range of posts and of different seniorities in the organisation, bringing together individuals whose roles would not usually connect. This work provided the building blocks to a programme of work in evidence based practice development in breastfeeding (Renfrew *et al*. 2006).

When the methodologies available to support professional behavioural change are considered (Bero *et al*. 1998), much of the work in implementing evidence into practice in midwifery has relied on guidelines, often supported by other interventions such as educational activity. Multi-faceted interventions are located at the top of the evidence hierarchy in their effectiveness in achieving behavioural change, although it must be noted that much of the evidence base informing that hierarchy has been generated by studies of medical practice. In addition, large-scale evidence implementation initiatives with rigorous evaluations remain relatively rare in midwifery. Of the exceptions, the South Thames Evidence Based Practice project evaluated the use of guidelines, audit and feedback with education facilitated by a midwife opinion leader, in attempting to achieve increases in breastfeeding. This did not achieve the changes in breastfeeding rates that had been hoped for, due, it was suggested, to endemic difficulties in hospital postnatal care (Grant *et al*. 2000). A large trial, conducted by MacArthur *et al*. (2003) evaluated protocol based midwifery postnatal care that included guidelines and an extended duration of postnatal midwifery involvement. The evidence based guidelines were developed by experts in each field and addressed common early postnatal problems; this trial demonstrated a beneficial effect for women's mental health in the intervention group, although which elements of the package were particularly helpful is not known.

The evidence base to changing practice continues to develop, and large-scale models that support knowledge translation are increasingly available (for example, Pronovost *et al*. 2008) for testing in the midwifery and maternity context. The concepts of diffusion generally (Greenhalgh *et al*. 2005) and of innovation, in particular (Rogers 1983), merit more detailed consideration in evidence implementation in midwifery.

We would contend that there is scope for greater midwifery activity in this area, both in utilising and testing, in the midwifery context, the evidence about implementation that already exists and in contributing to that from the midwifery perspective. These activities require an understanding of the field and access to large-scale funding to support such innovation and evaluation.

Conclusion: 10 years on

Proctor and Renfrew (2000) drew up a framework for the next 20 years for research involvement for midwifery. The components of that were outlined earlier in this

chapter. From the subsequent sections, it appears that some progress has been made but other areas require significant effort to achieve progress. Generally midwives' access to evidence has improved both in terms of primary research and pre-synthesised information but access to high-quality outcome data is incomplete. Midwives work with service users in local and national forums but there is scope for further integrated working. Training needs in appraising evidence can still be identified within the profession, in the context of progress towards a graduate profession. Cultural issues remain challenging and despite commitment, evidence based midwifery is not always a comfortable option. New philosophies for midwifery require consideration alongside evidence based practice. However, there is wider and, probably more accessible debate about methodological, cultural and philosophical issues. Midwives are represented on research commissioning bodies and acquire project funding but few hold programme grants. Statutory and professional bodies have not yet demonstrated strategic vision or leadership in respect of evidence based midwifery, possibly due to competing priorities and calls on their resources, though there are encouraging signs of progress. The loss of midwifery specialist posts, for example, in practice development and the merger of consultant midwife with head of midwifery posts do not bode well for local leadership in evidence based midwifery. Areas for empirical enquiry that would support the development of implementation activity and evidence based midwifery more widely have been identified.

It is of interest that clinical governance has received little attention from chapter authors; the extent to which this may reflect the wider professional perspective requires consideration. The concern here is that it may reflect a lack of integration of evidence based midwifery within NHS systems and a lack of access to an available source of support. Midwifery has formerly been criticised for being too aware of its separate professional status. The historical dominance of obstetrics, in particular, led midwives to attempt to secure their own position in developing midwifery-led care during the late 1990s and earlier in this decade. Accessing midwifery evidence contributed to their ability to provide such care (Munro and Spiby 2001). However, perhaps there are now additional factors that militate against single discipline activity in evidence based practice. The philosophy in guideline development in the NHS is now one of multidisciplinarity. Important agencies, including the Clinical Negligence Scheme for Trusts, appear to require only one guideline for each aspect of care; this has the potential to significantly influence Trust decisions about practice issues, in the context of impacts on insurance and therefore finance. Midwives will need to engage considerable resources and effort to progress some aspects of evidence based midwifery against the trend of multidisciplinarity. However, the fact that midwifery-focused guidelines are still considered of value by midwives was demonstrated by the commissioning by the RCM of the fourth edition of the guidelines for midwifery-led intrapartum care (Munro and Jokinen 2008).

At the time of writing, an interesting raft of new initiatives has been announced for the health-care system in England. Decisions are expected imminently about the locations for Academic Health Sciences Centres in England. Collaborations for Leadership in Applied Health Research and Care (CLAHRCs) were recently

established to conduct high-quality applied health research and to support the translation of evidence into clinical practice through joint working between academic institutions and NHS Trusts; maternal and child health are included as target areas in some collaborations. Guidance is anticipated imminently from the Department of Health in England about what will be expected of the Health Innovation and Education Clusters but it is anticipated that these will work to develop processes that expedite knowledge transfer. The extent to which midwifery will be involved in any of the above initiatives and the nature of that contribution are not yet known.

We contend that to achieve progress in evidence based midwifery over the next 10 years, the following issues need to be addressed. First, the identification of leadership, the development of strategic direction and capacity building in this important aspect of professional midwifery. By developing leadership at all levels, issues of culture and philosophy will also be addressed. To conduct empirical enquiry, midwives require access to funding sources; the NIHR has a role to play in identifying resources to support this. Ways must be developed to ensure that all midwifery constituencies concerned with the implementation of evidence can discuss and progress in this. The best means of achieving embeddedness for evidence based midwifery within NHS and other sectors, organisations and systems must be determined. It is important that the profession actively explores the issues highlighted here in the context of determining and maintaining its own areas of expertise, in working towards the vision and goals of *Midwifery 2020* and to ensure that optimal, evidence based care is provided to women and families through the integration of evidence with women's preferences and beliefs and professional judgement.

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Appendix

Writing Midwifery Evidence

Marlene Sinclair

This appendix offers guidance in writing evidence for midwives, which will facilitate the transfer of research outcomes from the research report, theses or clinical trials to publication. This is a distinct part of the process of translating evidence into practice that starts with dissemination to appropriate, and often varied, audiences. Regardless of whether or not the evidence is from a randomised clinical trial (RCT) or a phenomenological inquiry, a rigorous process of data presentation is necessary to ensure that those who wish to use the published evidence can do so with confidence. This appendix draws attention to the importance of the publication process: the steps in manuscript preparation and adherence to publication guidelines that are essential in enabling the researcher to communicate the evidence in a manner that will allow critical appraisal.

Publication is one of the most common methods of communicating research outcomes to academics, peers, research participants, clinical colleagues and professional bodies. Indeed, for many midwives, particularly those in academic posts, publication is the primary means of establishing a research reputation and building a research career.

One of the greatest challenges faced by midwives, is translating midwifery research from theory to practice. If research is not readily accessible to the profession and the public, the necessary sharing of knowledge will not take place; there will be no dissemination and no translation of research findings into practice. Publication of midwifery research is a major component of the dissemination process and one that requires careful planning. In any research, a plan for dissemination should be drawn up; in most cases, this includes feedback sessions to those who have supported the project, conference paper or poster presentations, publication in various journals and possibly media coverage.

The aim of a research paper is to provide a text based representation of a research journey undertaken, the goal of which is to tell a 'truth story' and share the research outcome. The paper should have appropriate signposts to guide the reader and these are usually stipulated in each journal's guidance for authors.

When we plan research, we do so with rigorous attention to process and outcomes, working within research governance frameworks and ethical guidelines.

At every stage of the research process there are problems to be addressed and challenges to be considered. At the stage of preparing manuscripts for publication, it is essential for midwifery authors to understand those rules and regulations provided by publishers, which guide and protect them, and also those that protect publishers and the public from misrepresentation of the evidence.

Writing: an everyday business for midwives

It is important to set writing in the context of midwives' everyday work and responsibility. Everyday, whether they are working in clinical practice, management or academic settings, a midwife's life requires 'pen to paper', 'fingers to keyboard' or 'voice to phone'. In each situation, the midwife is communicating a message to others. In writing papers that present research evidence, this falls within the suite of communication methods and requires particular skills.

Publication . . . production, process, problems, potential

With modern communication systems giving instant access to electronic search engines such as Google scholar and Wikipedia, as well as the more academic electronic databases such as PubMed, Cochrane, Web of Science, Psychlit, Cumulative Index to Nursing and Allied Health Literature (CINAHL) etc., finding information about writing for publication requires nothing more than an investment of time to turn on the computer and do a simple search. A simple search for 'writing midwifery research' using Google scholar produced over 1 000 000 references. Accessing PubMed, keying in exactly the same query produced 256 references on 19 December 2006. By simply limiting the dates to include 1990–2007, this number was reduced to 95. There are many useful web sites to support writers, and guidance is available for writing academic papers as well as professional papers. Two very helpful resources are Purdue University Online Writing Lab, aptly shortened to OWL and located at: http://owl.english.purdue.edu/handouts/general/gl_plan3.html and the British Medical Journal guide for authors http://resources.bmj.com/bmj/authors.

Another useful electronic resource, developed by Fischer and Zigmond (2001), has been made available at Pittsburgh University, and is available at www.survival.pitt.edu. This resource is based on 20 *steps*, *not questions*, to guide the writer to produce the desired research paper from their thesis, and can be further shortened to 13, if required (Fischer and Zigmond 2001).

Each writer must make decisions about the most suitable way to achieve the desired outcome of publication; one approach is described below. Thomson (2005 p. 190) advises midwives to review the target journal carefully, but, in particular, 'to examine how papers are structured . . . read papers that report studies using the methods that you have used in your research. The papers need to be sharply focused, effectively summarised and fit within the page allocation of the journal'.

Title of the paper and keywords

Your title should be meaningful, relevant and focused on a key aspect of your paper. The title can be altered at any stage of the process, but time spent thinking carefully about your audience and how you would like your paper to be 'found' by others searching through electronic databases is important. There should be a clear link between the title and keywords for this reason.

Abstract or summary

The key question here is, does this abstract provide accurate and relevant information to readers about the study to be presented? Does it advertise your paper well? It is important to remember that in many instances access to abstracts determines whether or not the full paper is accessed. Brazier (1997) reminds us that the abstract may remain the only well-read documentation of your work.

Writing abstracts

A comprehensive, detailed and structured approach to writing abstracts written by an Irish librarian Brazier (1997) is available online at http://www.nursing-standard.co.uk/archives/ns/vol11-48/research.htm. This site provides an excellent resource for any health professional writing an abstract for publication or conference presentation. The paper divides the process into five main stages: title, background, methods, results and conclusion, and then offers advice on how to avoid rejection of abstracts submitted for conference presentation.

Authors and acknowledgements

The International Committee of Medical Journal Editors (ICMJE) have produced the following guidelines for authorship at http://www.icmje.org/.

Authorship credit should be based on (i) substantial contribution to conception and design or acquisition of data or analysis or interpretation of data; (ii) drafting the article or revising it critically for important intellectual content; and (iii) final approval of the version to be published. Authors should meet all three conditions.

Acknowledgement of contributors

Individuals who have not been involved in writing the paper, but may have been involved in the study design can be listed as contributors, provided their consent is obtained in writing. Gøtzsche (2007) advises editors to change from the traditional system of simply listing authors' names to reporting each individual's specific contribution to the research, due to the past omission of statisticians from the authorship of randomised controlled trials. The practice of listing individual contributions is well established in some of the medical journals, for example, the British Medical Journal.

Introduction

What is the paper about?

The opening statement should introduce the background and nature of the communication to be expected: a problem solved, a debatable issue, a literature

review synthesised. The opening statement needs to be presented in good English, relevant, interesting and motivational.

For example,

Option 1 Several years ago, Sinclair (1997, 2001) pointed to the failure of midwife education to prepare student midwives for their technological role.

Option 2 The preparation of student midwives for their role in supporting women who choose natural or technological birth is an issue for debate.

There is a distinct difference in tone, language and motivational context, with the second option offering a much more invitational approach and welcoming the reader to debate.

Literature review

Key aspects of the literature relevant to your research

Authors need to present the main outcomes of the literature search in a structured format that conveys the salient points to the reader. It is important to consider how to present this carefully: classification frameworks and tables may be helpful in this (Lagan *et al*. 2006). The American Psychological Association (APA) has a publication manual that is another useful resource. In 2001, the 5th edition was published and it provides guidance on the literature review, encouraging writers to exclude work that is peripheral to the proposed research. If possible, your literature review should start with the broad context and then adopt a funnelling approach to focus on the area of specific interest, and summarise the existing knowledge and gaps. This approach prepares the reader for the subsequent introduction of the research aim and objectives.

Electronic databases

Most researchers are familiar with electronic databases, accessible from any PC with Internet access. However, it is important to remember that some electronic resources require you to use your Athens user name and password (contact your local librarian for details related to access and registration). Most UK university libraries have access to commonly used resources such as the following:

- BNI (British Nursing Index) covers most nursing, midwifery and community health journals published in the United Kingdom from 1985 to the present.
- CINAHL encompasses literature relating to nursing and the allied health professions. More than 1600 journals and 11 000 subject headings, from the 1980s to the present are covered.
- MEDLINE is widely recognised as the bibliographic resource for all biomedical literature and covers nearly 10 million bibliographic citations and abstracts across medicine, midwifery, nursing, dentistry and veterinary science from 1966 to present.
- Cochrane is a library consisting of evidence based databases, systematic reviews and other research resources.

It is important to present your search strategy, keywords, mesh headings and databases accessed, so that an evidence trail can be continued in future studies. Some journals will ask authors to make their search strategy and additional information such as tables available for online access by readers.

Theoretical Framework

In most research papers, the theoretical framework underpinning the study is introduced as a subsection in the literature review. This framework provides a journey map to guide the researcher and the reader through the logic of the study (Sinclair 2007) and is often under-reported in research papers. This should be introduced before the methodology section.

Method

In most journals, it is essential to describe the design of your study and then present the method in logical order. If you are writing about a randomised controlled trial, it is important to follow the CONSORT guidelines (see http://www.consort-statement.org/Downloads/flowchart.doc for further information).

Ethical considerations

As a minimum, details of consent to participation and Ethics Committee approval should be reported.

Data analysis

In writing either qualitative or quantitative research, the author must provide details of the process of data management including details on how data was collected, categorised and classified. Where statistical tests have been carried out, these must be reported and interpreted accurately. Validity and reliability in quantitative research, and transferability and confirmability in qualitative research need to be addressed to enable the reader to have confidence in the research findings.

Findings

Writing about the findings poses problems regardless of whether you are reporting qualitative or quantitative research. You really need to work hard on this section of your paper. It is usual to report the demographic characteristics of your sample and response rate. Writing qualitative research offers many challenges and these have been subject to much criticism. The reporting of phenomenological research, in particular, challenges the author to effectively communicate the essence of human experience, and this is a complex process. Max Van Manen, from Alberta University, is a world leader on phenomenological research and writes profoundly about 'meaning' communicated through text. His writing

ability is exemplary, and during a workshop at the University of Ulster in 2003, he shared insights about the need for deep reflection, sensitive and repeated reading of the text in order to hear and understand, prior to writing interpretative commentaries.

Malterud (2001) provides an excellent overview of the standards required and challenges encountered in qualitative research. This paper also provides definitions of terms and a comprehensive framework for guiding writers and reviewers of qualitative papers. The framework provides a checklist for use in preparing papers for submission to peer-reviewed journals. The headings are discussed in some detail and include: aim, reflexivity, method and design, data collection and sampling, theoretical framework, analysis, findings, discussion, presentation and references.

Discussion

What have you found that is new or different and what does it add or change to what is already known? What effect, if any, is accounted for by the limitations of the method, data analysis or issues to do with the sample?

This section should present a detailed comparison and argument of the main findings of your study, and leave the reader with no doubt about the contribution your paper adds to knowledge in its field. It is in this section that you draw together your critical appraisal of the literature, with your interpretation of the findings and review the impact of these on your theoretical framework, together with your aim and objectives. In some cases it is helpful for new writers to structure their discussion under the research objectives and conclude with consideration of the implications of the research for practice, policy and further education and research.

Conclusion

What is the overall summary or argument arising from your paper?

At this stage, the skills required include precision in summarising key points as well as an ability to project research ideas and to engage the reader in blue-sky thinking, so that further research in the area can be introduced for the reader's consideration. It is important not to introduce new data at this point as the conclusion is based on what has gone before.

References

What is the referencing style of the target journal?

Referencing is an extremely important issue that is the responsibility of the writer(s). Use of reference management systems such as Endnote or RefWorks will make referencing more manageable. Today, we use information from many different resources and it is important to know how to reference these. The following Box A.1 presents some information provided by the ICMJE.

Box A.1 Electronic Referencing

The ICJME offer guidance on how to accurately reference electronic data sources on http://www.nlm.nih.gov/bsd/uniform_requirements.html

Examples for different types of electronic material

CD-ROM

Anderson SC, Poulsen KB. Anderson's electronic atlas of haematology [CD-ROM]. Philadelphia: Lippincott Williams & Wilkins; 2002.

Journal article on the Internet

Abood S. Quality improvement initiative in nursing homes: The ANA acts in an advisory role. Am J Nurs [serial on the Internet]. 2002 Jun [cited 2002 Aug 12]; 102(6):[about 3 p.] Available from http://www.nursingworld.org/AJN/2002/june/Wawatch.htm

Monograph on the Internet

Foley KM, Gelband H, editors. Improving palliative care for cancer [monograph on the Internet]. Washington: National Academy Press; 2001 [cited 2002 Jul 9]. Available from: http://www.nap.edu/books/0309074029/html/.

Quality assurance issues

Are there any quality assurance mechanisms in place to monitor the management and conduct of journals?

International issues of quality and standardisation for journals have been tackled by organisations such as the World Association of Medical Editors, located at www.WAME.org

Copyright

Who owns this material? If this material is not mine, whom do I need to seek permission from before I use it? If this material is mine, how do I want to protect its use in the future?

This is becoming more of an issue due to the development of new technologies, artwork, video clips and software programmes. It is important to read the journal's guidelines for authors, related to copyright, as most journals ask you to sign over the copyright before publication; others require this when you initially submit your paper.

How do I get permission to use somebody else's work and other subject matter?

You should contact the right owner. For certain types of works and other subject matter, you can get permission from a *collective management organisation*. Collective management organisations license the use of works and other subject matter that are protected by copyright and related rights whenever it is impractical for right owners to act individually. You need to think carefully about both the use of

your own and other people's materials. For further information and submission of queries on this subject, contact the World Intellectual Property Organization (WIPO) at http://www.wipo.int/copyright/en/faq/faqs.htm#rights.

Legislation on copyright

The Collection of Laws for Electronic Access (CLEA) is a unique electronic database providing easy access to treaties on intellectual property and associated legislation from a wide range of countries and regions. It is an invaluable information resource made available by WIPO, free of charge, to all interested parties, including researchers, legal professionals, policymakers, students and administrators. In the United Kingdom, the host organisation is the Department of Trade and Industry; the Patent Office Copyright Directorate can be accessed at http://www.patent.gov.uk.

Under most national copyright laws, it is permissible to use limited portions of a work, including quotes, for purposes such as news reporting and private personal use. For further information see the national legislation available in the CLEA.

The peer review process

The purpose of peer review is to provide a rigorous evaluation of the paper with regard to the validity and reliability of its content, quality of the communication and the relevance and contribution of the paper to the body of midwifery knowledge.

This should be a transparent process that provides a quality assurance mechanism. Scholarly journals clearly state their policy with regard to peer review, and this is usually found in the section containing instructions for authors. It is important to read this section carefully. For example, if you are writing for Evidence based Midwifery (Sinclair and Ratnaike 2007), all manuscripts received are sent to two reviewers who are blind to author details.

Conflict of interest

Conflict of interest is an important issue and a written policy is needed to state how this issue will be managed. Financial relationships, intellectual relationships and consultancies need to be considered and interests declared by authors.

For example, in Evidence based Midwifery, double blind peer review is not considered to be sufficient when members of the editorial team or indeed the editor has been involved in writing a paper submitted to the journal. In this case, each paper is sent out for triple review and the combined comments blinded to the editor before submission for editorial decision.

Confidentiality

Editors must ensure that their policy and guidelines to reviewers state clearly that all materials sent to them for review are confidential and access is prohibited.

This may include the stipulation that, following peer review, all materials should be returned to the editor for safe disposal.

Anonymity of reviewers

Some publishers have recently introduced processes where reviewers are identified; there are mixed feelings about the value of this process. In some situations, the editor will ask for permission from the reviewer to reveal their identity.

Final checklist

Huckin and Olsen (1991) have a useful publication designed to offer advice and guidance on the features of scientific and technical English for non-native speakers of English. When you have written your paper, it is important to walk away from it and leave it for a few days. When you return, re-read it using a framework for review such as that provided by Sinclair and Ratnaike (2007).

Conclusion

Writing the evidence for publication provides a vehicle for transferring knowledge from theory to practice and vice versa. Understanding the basic processes of writing for publication is fundamental to enabling effective communication of research evidence that can subsequently be critically appraised.

Writing for publication can be daunting for the new writer, but it is a vital component of evidence based midwifery. There are sources of support and advice available; some have been described above and others include writing workshops and support from experienced authors.

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Index