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Midwifery in the technological world: rapidly evolving phenomena

Key words: Litigation, new birth technologies, human error, evidence-based midwifery

Young et al (2001) reported obstetric litigation was costing the NHS £160m to 200m per year and accounted for 60% of all pay outs. Widdup and Goodchild (2009) under the Freedom of Information Act (2000) published shocking statistics in the *London Evening Standard* detailing £27m pay outs for obstetric litigation in London alone. It is understandable that in an economic recession, technological research that offers a solution appears as a ray of hope. However, caution is required as the 'hope' that comes from discovery knowledge can be so powerful, it blinds people to the consequences of sanctioning new technologies without the requisite evaluation of their fitness for purpose. Regardless of pregnant women's acceptability of these devices, we continue to invest in, and exploit technological solutions to situations in which human error can be overcome by artificial intelligence. However, it is important to note that once initiated, the technological cycle is unstoppable and we may reduce human error of one kind, only to replace it with error of another kind: human device error.

Research support for new technologies is evident in the literature where there are reports of proposed financial savings, reduction in human error and a better chance of winning legal cases through the development of sophisticated new monitoring technologies such as the computerised labour monitoring device (CLM) and a modification of the amniotomy hook StationMaster (SM). In 2007, it was announced that the company Barnev had attained US Food and Drug Administration approval for its new CLM device for measuring cervical dilatation and the position of the fetal head (Barnev, 2007). The new device had been subject to a multi-centre trial and proven to be effective and accurate in monitoring the progress of labour. It was also advertised as a useful tool in litigation cases. The system was based on ultrasound technology, with a clip on the maternal cervix and the fetal head providing a graphical display of fetal descent.

Recent research by Luria et al (2009) reported reliability issues with the device and noted 'high variability was observed between subjects for all indices measured', but offered a ray of hope by identifying that these vectors may serve as indicators for normal and abnormal progress of labour and concluded that 'we need more data to demonstrate statistical significance'. The device may reduce error in assessment, but it is dependent on accurate placement of the sensor on the cervix by the midwife or doctor. Therefore, if the device is not properly applied, it will lead to false records and this leads to errors in judgement and so on... the cycle continues. In addition, the machine needs to be acceptable to women and, to date, their role in designing, testing and evaluating this device is not evident.

Awan et al (2009) reported the outcome from tests on SM, a 'simple modification of the amniotomy hook which works by relocating the point of reference for station assessment from the ischial spines to the posterior fourchette'. They trialled the device with 20 midwives and 20 doctors from Liverpool Women's NHS Foundation Trust using a mannequin. The authors concluded:

"Inaccuracies in SM readings can arise from either inaccurate calibration of the instrument or from the actual measurement... for a method to be brought into routine clinical use it needs to be simple, low cost and acceptable to women and carers alike."

Childbirth is everyone's business and its strength and fragility are subject to internal and external factors that are not always controllable. Human nature is imperfect and every new technological discovery leads to a fresh set of problems to be addressed. The technological solution to reducing human error in childbirth is not without cost and in the future may lead to robotic birth, if we do not take control of device development and develop a framework for creating, synthesising and filtering new and emerging technologies in childbirth. Finding a balanced position is essential if we are to progress. The challenge is to remain critical yet receptive to new technological developments and ask ourselves how new devices contribute to our knowledge, understanding and experience of postmodern childbirth.

We live in the 'instantaneous age' where postmodern woman lives as part of the new Generation Y. This is the age of new communication technologies evidenced in the use of social networks, such as Twitter, Facebook and YouTube. These instantly accessible repositories give postmodern labouring women a new window of opportunity to record, explore and monitor their childbirth experience in real time. Our role as midwife in this new world is embryonic and subject to rapid change.

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Making a difference for women, babies and families

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This is the third paper in a series celebrating the contribution of professors of midwifery to the profession.

The developments outlined in this paper were aided and abetted by many talented, generous people. I am particularly indebted to Jo Green and Helen Spiby, without whom MIRU would not have evolved in the way it has.

Abstract

In this paper, I describe the evolution of my career, set my current work programme into context, and examine the key themes that have influenced my national and international work in research, education, policy and practice development, leadership, management and strategic engagement. The development of the Mother and Infant Research Unit at the University of York is described, and the purpose and shape of its programme is outlined. Core principles influencing the direction of its research include multidisciplinary and cross-sectoral working, collaboration, listening to women and families and the professionals who work with them, focusing on inequalities in health and care, and addressing topics that matter to women and families. Fundamental to my work is the close integration of research, education, practice and policy, and although this can be challenging to achieve, it can enhance education and capacity building, and inform care and policy that can make a real difference for mothers, babies and families.

Key words: Research, education, policy, practice, career development, history, midwifery, multidisciplinary, evidence-based midwifery

Introduction and background

I have been invited to contribute to this series of papers on the work of UK professors of midwifery, to describe the development of my career, and to set my current work programme into context. It has not been an easy paper to write. First, it is a more personal account than I am used to writing. Secondly, describing the past can be a dangerous business; there is a temptation to make it sound as if there was a clear and certain trajectory from the start. It was nothing like that in fact. There was no path to follow, and for a long time, I was not at all certain of what I was capable of or what I wanted to do.

My work now involves a combination of research, education, and involvement in policy and practice development, together with management, leadership, and strate-

gic engagement in national and international academic, professional, government, and charitable and voluntary sector organisations. I lead the Mother and Infant Research Unit (MIRU), a multidisciplinary group I established in 1996, having become a research professor of midwifery at the University of Leeds in 1994. MIRU is now based in the University of York, having moved there in 2004 (University of York, 2010).

When I was a student and newly-qualified midwife, such a work profile was simply unimaginable. In this paper, I will describe the evolution of my career and the vision and values that have informed the development of my work. I hope this account will serve to illustrate important aspects of research, education, practice and policy in maternity care. I have had the privilege of working with talented and

generous people, and have been inspired by others who have had the vision and clarity to show what can be done. I have also been saddened by the differences and divisions encountered at times between academic and clinical settings, and between research and education. I hope that this story might offer examples of what can happen when we can work effectively across those divides.

Early years: the foundations

This story starts at the beginning of my professional career, although family and school influences were also formative. Before starting midwifery training, I completed the nursing studies degree at the University of Edinburgh. It was a social science-based degree, and included sociology, psychology, literature and philosophy as well as nursing. We were taught a critical and questioning approach to care by pioneering teachers, several of whom were also researchers in social science or nursing. The learning environment was multidisciplinary and challenging – we attended classes with student social workers and psychologists, and in clinical settings, we were encouraged to ask questions directly of senior medical and nursing staff.

As a student midwife in the mid-1970s, questions about care came thick and fast. The routine practices that we were taught seemed to have evolved and then set in stone without clear rationales. Women came to hospital-based antenatal clinics, often having to wait for hours to see a junior doctor. We were taught to do pubic shaves and enemas for all women in early labour, and routine episiotomies at birth. Women were confined to the labour ward bed in labour, and lithotomy poles were used for birth. Mothers were kept in postnatal wards for a week or more after birth, while their babies were kept in nurseries with their feeds timed and measured, whether breastfed or, more usually, formula fed. In spite of what now seem like draconian routines, care was often kind and compassionate, caring for women in labour meant staying with them at all times, holding their hand, rubbing their back, comforting them with words or just with your presence. Community midwives visited postnatal women at home every day, more than once a day when needed, until they felt the mother was ready for discharge. I worked with many midwives and obstetricians whom I admired and who cared for women as individuals at a time when routines had become embedded in the system.

The tricky thing was that it was hard to tell good care from bad. How do you know that a mother can produce enough breastmilk, if your only experience is of routine formula top ups after each breastfeed? How do you know that episiotomies can be safely avoided if you have never seen a birth without surgical intervention? I was privileged to hear Ivan Illich speak about his book *Medical nemesis: the expropriation of health* in 1975 (Illich, 1975), and to read Suzanne Arms' *Immaculate deception: a new look at women and childbirth in America* (Arms, 1975). These critical analyses provided a framework to identify such routine practices as 'interventions'; helpful when needed, dangerous when used routinely.

Neither women nor midwives seemed to have much control over decision-making at that time. Probably individual consultants did not either, as the system itself was dominant, driven by a philosophy of risk and control. It proved to be a system I did not want to work in, and I nearly left midwifery completely. I was lucky, however; propelled by these questions and the resultant anger at the way women were being treated, I worked instead for four years as a midwifery research sister with the Medical Research Council's (MRC) reproductive biology unit in Edinburgh, as part of a team led by Peter Howie, examining breastfeeding and lactation. Learning about research, answering questions through evidence, and being able to challenge the system with knowledge, was a powerful experience that shaped the rest of my career. I worked with people who understood the challenges, were generous with their knowledge and time, and who exposed me to the richness that is inter-disciplinary working. When they saw the contribution that resulted from the combination of their biomedical and physiological knowledge with my social science and midwifery knowledge, these colleagues supported me to develop my own studies and to do my PhD part time while working there. I am forever indebted to them – they could see the potential of a midwife becoming a researcher, even though we knew no one who had done so before.

These studies informed international policy and challenged contemporary breastfeeding routines of timing, top ups and test weighing (Houston et al, 1984; 1986; Howie et al, 1981; Crowther et al, 2009). For my PhD work, I developed and conducted mixed-method studies in which women's views were an important source of evidence about breastfeeding problems. I spent several years studying practices on the postnatal wards and working in the community in Edinburgh, visiting over 250 women in their own homes, many of them for weeks and months after their babies' births. My interest in social justice was fostered when recruiting women into our studies who lived on some of the poorest estates on the outskirts of Edinburgh. I encountered at first hand the simple practical discrimination of women not being able to afford the bus fare to attend the antenatal clinic or the child care needed for older children, and the stereotyped assumptions of caregivers when a woman lived in the tower block in the disadvantaged area of Pilton. My first published paper was a result of those experiences (Houston et al, 1980).

These women described the problems they had and the support they wanted to enable them to breastfeed, and much of what I know about breastfeeding was learned through listening to them. Women's voices had been effectively silent in research studies up until that point, though Kitzinger (1980), Oakley (1980) and Graham and McKee (1980) published important sociological accounts of women and birth. Another problem was the lack of implementation. A good quality research study published more than 25 years previously had shown that restricting the timing of breastfeeding resulted in worse outcomes

(Illingworth et al, 1952), and Gunther's writings showed that in-depth knowledge of breastfeeding was available (Gunther, 1945; 1970); but neither the research study nor Gunther's clinical expertise had been put into practice or used to challenge the medicalised system.

I met many others working in infant-feeding and in maternity research nationally and internationally, including Mona Romney, the midwife whose trials on enemas and pubic shaves in labour were to change those unpleasant practices forever (Romney and Gordon, 1981), Maggie Myles, who included our research findings on breastfeeding practices in the final edition of her midwifery textbook (Myles, 1985) and Elisabet Helsing, who worked for the World Health Organization and who had been instrumental in establishing mother-to-mother support groups and increasing breastfeeding rates in Norway.

In those years the National Childbirth Trust (NCT) was active, and women across the country were asking questions that mattered about the care they were receiving. I also saw at first hand that care and policy can make a difference, and that evidence is needed to inform what we do, so that we do the right thing informed by knowledge, and not the wrong thing through ignorance. This experience showed that questions could be answered with careful and rigorous research, and demonstrated that people would listen if the research was good enough.

I gained my PhD in 1982. Although there were a handful of other midwives doing research at that time including Ann Thomson, and Tricia Murphy Black in the UK, and Vivianne Wahlberg in Sweden, as far as I am aware this was the first doctorate in a field relevant to midwifery in the UK. I had learned a great deal about what was possible if evidence, care and policy could be closely aligned, and wanted to continue to work in that way. There was, however, no career structure to support the work I wanted to do, or role models to demonstrate what was possible. It was only last year, in 2009, that the first ever funding awards were made to support midwives, nurses and allied health professionals in gaining Masters degrees, PhDs and clinical lectureships in a clinical academic training pathway. Such funding is needed to support research career development and training. Midwives who wanted to conduct research have until now had to forge a path for themselves, often in the face of criticism or active hostility not only from other professions, but at times from their own clinical or education colleagues – I have had my fair share of that, as have many others.

Following my PhD, I wanted to return to clinical work in labour and birth because my recent experience had been in postnatal care and infant-feeding. I moved to Oxford to take up a post as a midwife – a post offered on condition that I did not tell colleagues that I had a PhD. I think the rationale for that was that in a clinical post, research was viewed as at best not relevant, at worst a distraction. I benefited from working with very talented clinical colleagues, and several months later when colleagues finally found out about my research background, they wanted to know more, and to find a way of having their own ques-

tions answered. These were the years before MIDIRS, before electronic searches – even *Midwifery*, the first peer-reviewed academic journal in the field that was founded by Ann Thomson in 1986, was not yet available (*Midwifery*, 2010).

With the engagement of enthusiastic colleagues from clinical practice and education, we tackled inappropriate routines, such as restricting movement during labour and early amniotomy, and set up a journal club for midwives (Houston and Weatherston, 1986). We even organised a full-scale randomised controlled trial of early versus late cord clamping (Oxford Midwives Research Group, 1991) run by a collaboration of community and labour ward midwives with no external funding – a trial that was stopped prematurely after recruiting over 500 women but before it reached its planned sample size, because a consultant obstetrician wanted to collect cord bloods. It remains one of the largest trials on this topic in the literature, though sadly it is not big enough to answer the question. That time in Oxford was also when I first met Iain Chalmers and his colleagues in the recently-established National Perinatal Epidemiology Unit (NPEU). They had started to support midwives to develop research, including Jennifer Sleep, who was working on her ground-breaking trial of restricted versus liberal episiotomy (Sleep et al, 1984).

A new chapter started when I moved to work in southern Alberta, Canada in 1984 as associate professor in nursing. Canada had mandated all-degree preparation for nurses, and was seeking staff with doctorates to teach the new undergraduate programmes. I wanted to learn to teach in a university setting, and was also curious to see a health system in which midwifery was not legal. I could not imagine how women could labour and babies be born without midwifery care. I spent four years teaching in a nursing degree programme and learning my trade as an academic – adapting to the semesterised Canadian system, trying to fit research into the brief time left over from constant teaching, and developing a new curriculum and modules. I taught community health as well as maternal and child health; as a result I came into close contact with the Blood Tribe, the largest First Nations community in Canada, and saw for the first time at first hand how discrimination and prejudice had created a third world community in a first world country – and how a rich culture can survive centuries of prejudice and impoverishment. At the same time, I worked for the legalisation of midwifery in the province and across Canada, propelled by the same anger I had encountered in my student days as a result of the highly medicalised system in which women were deprived not only of choice, but of the comfort of trained midwives.

This political work could only be done effectively in collaboration, and I worked with midwives who had trained in other jurisdictions, as well as with lay or apprentice-trained midwives who were practising outside of the legal system, and with consumers and voluntary organisations who wanted to change the system. I learned how politics and professional territoriality can get in the way of meeting women's needs, and also met and worked

with the community of North American academics who were involved in this cause and who were developing the evidence base to challenge the medicalised system.

I gained experience in dealing with a hostile media as the first acting president and spokesperson for the newly-formed Alberta Association of Midwives, an organisation I co-founded and which brought together lay midwives with midwives qualified in other jurisdictions for the first time. This work involved travel across the (very large) province, and the fun and reward of working with committed and talented people. Despite the very high rates of routine interventions and the active consumer movement that advocated for the establishment of midwifery, both the nursing and obstetric professions were unsupportive of, or actively antagonistic to, the legalisation of midwifery. Midwifery was functioning without agreed standards of education or practice, with no protection for the women who chose to be cared for by midwives who – however good they were – were practising outside of a legal or professional framework; we therefore worked to develop a new regulatory system. This experience explains my current membership of the NMC, as I saw how fundamental professional regulation is to protecting the public.

Developing a programme of research and dissemination

Four years later, I returned to Oxford for a spell as senior midwife for practice development, and then was privileged to be appointed as the director of the newly-funded midwifery research initiative at the NPEU in 1988. The result of joint planning between the NPEU, the Department of Health and the RCM, this offered the unique opportunity to conduct a programme of research and to support the development of research capacity in midwifery across the country.

We conducted studies of practice, including postnatal care, water birth, and perineal care at birth (Albers et al, 1999; Alderdice et al, 1995; Garcia and Renfrew, 1994; McCandlish et al, 1998; Renfrew et al, 1998). Our large multicentre, international trial of antenatal care for women with inverted nipples was the first randomised controlled trial to involve women themselves in recruitment, randomisation and follow-up (MAIN Trial Collaborative Group, 1994). We set up MIRIAD, the national register of research in midwifery (McCormick and Renfrew, 1997; Renfrew, 2000). The purpose was to establish a network of midwives conducting research across the UK who could support and learn from each other, as there was so little formal support available and some midwives even experienced active hostility to their involvement in research. The diversity and volume of research identified was impressive, and much of it had been conducted without any formal funding base. I also became involved with activity outside of my own research programme, for example, MIDIRS had been established a few years previously by Marianne Scruggs, and I had the privilege of chairing its executive for three years.

It was a rich time to be involved in maternity care, and especially in research. *Effective care in pregnancy and*

childbirth was produced (Chalmers et al, 1989), and I was invited to be involved in this and the accompanying guide (Enkin et al, 1996). The Cochrane Collaboration developed out of the series of systematic reviews that underpinned this work, and my co-editorship of the group that became the Cochrane Pregnancy and Childbirth Group brought midwifery into the heart of this multi-disciplinary work.

Over the next few years, the new NHS research and development programme was established – I was asked to write its first report on research priorities in maternal and infant health. The *Winterton report* (House of Commons Health Select Committee, 1992) clarified the contribution of research in maternity care in general and by midwives in particular, and *Changing childbirth* (Department of Health, 1993) emphasised the centrality of women in maternity care. All were exciting developments with implications for the future of research and of maternity care. I also gained practical experience, when both my children were born safely at home.

Evidence-based care was developing as a concept through these years. At the same time, it was apparent that not only did staff need to know the best available evidence, but that women themselves needed to have direct access to evidence-based information that they could rely on to be accurate. I had the unique experience of writing *Bestfeeding* with Chloe Fisher and with Suzanne Arms in 1989-90 (Renfrew et al, 2004). We set out to produce a book for women that used pictures that were both accurate and appealing, and straightforward language that was free of unnecessary jargon and of concepts that disempowered women (no ‘demand feeding’ or ‘empty breasts’). The book drew on the best quality evidence together with high-level clinical expertise and experience of advocacy and empowerment. In the intervening years, and three editions later, many women have told us how important this book has been to them.

Dissemination is a fundamental part of any research programme. The co-supervisor of my PhD, Lisbeth Hockey, used to say that if you do a study and leave it to gather dust on the shelf, you might as well not have done it in the first place. So publishing and speaking have taken up a substantial proportion of my time; I have co-authored many academic papers and books such as Green et al (1998), Marsh and Renfrew (1998), Proctor and Renfrew (2000), as well as writing and media work directly for women and the wider public.

I have had the privilege of making hundreds of presentations in around 15 countries to academic, professional, voluntary sector and public audiences. This included a series of capacity-building workshops on developing research in midwifery that were organised across Europe by the International Confederation of Midwives (ICM) and the RCM. These were both challenging and fun as midwife researchers worked with midwives from other countries and cultures. The workshops turned out to be quite influential in the development of research in midwifery in several countries, and Jennifer Sleep and I were awarded

the Spinoza Chair in the University of Amsterdam in 1997 as a result. Together, we also established the research in midwifery conference series that ran for over ten years. This provided the first peer-reviewed academic forum for researchers working in midwifery and maternity care, although of course Ann Thomson had established the influential midwives and research conference series some years previously. The experience of these workshops and conferences, and of similar work in Australia, New Zealand and the US at different times, showed me yet again that a close alliance between academic and practice settings was essential. The places where midwives thrived in developing research and evidence-informed care were places where they were supported by university colleagues and, where over time, midwives could register for degrees from pre-registration through Masters and doctoral levels. This international capacity-building work is continued through my membership of the Research Standing Committee of the ICM.

Integrating research, education, practice and policy

One important problem with my work in Oxford was that I was not able to supervise students. Although I was running workshops and contributing to the development of midwifery curricula in other universities, I missed teaching and wanted to contribute more effectively to capacity building. It was evident that the numbers of midwives doing PhDs and studying at post-doctoral level in the UK remained small. It also felt important to link my research more closely with practice. When the opportunity came to take up a new position as research professor of midwifery studies at the University of Leeds in 1994, it offered the chance to combine research with teaching and with practice. I set up a small, new midwifery studies research group, and established close links with Leeds midwives and midwifery educators. Between us, we put together a new programme to integrate education with research and practice, and developed work across the city with colleagues in hospital, community and public health settings. My experience had always been that research was strongest in a multidisciplinary environment, and with support from senior university colleagues, some key multidisciplinary appointments, and some major research grants, the group developed into the multidisciplinary MIRU.

In the intervening years, MIRU's programme has developed and matured, and it has received several million pounds of funding from research funding agencies, the Department of Health, NICE, and local agencies. MIRU moved to the University of York in 2004 to join the strong health and social care and policy research environment there. MIRU's aim is to improve the health and care of childbearing women, their babies and families, and to address inequalities in health and care. The work programme is based on a vision and a set of core principles and practices that have been informed by the evolution of my career outlined in this paper. These principles include multidisciplinary and cross-sectoral working, collaboration, listening to women and families and the pro-

fessionals who work with them, focusing on inequalities in health and care, and addressing topics that matter to women and families.

Our studies involve expert practitioners and representatives of childbearing women (Entwistle et al, 1998). Studies are conducted in hospital, community and public health settings, using a range of methods including large randomised controlled trials, systematic and structured reviews, surveys, qualitative studies, and the analysis of existing data (Dyson et al, 2009; 2010; Green et al, 2000; Spiby et al, 2008; Smale et al, 2006). A full list of MIRU publications since 2004 are available at University of York (2010).

People from a wide range of disciplines have worked in or collaborated with MIRU, including psychology, sociology, public health, nutrition, anthropology, paediatrics, obstetrics, physiology, epidemiology, statistics, social geography, policy, and health economics, as well as midwifery. We have developed a programme of work on strategies to address inequalities in health that has included work with families from very low-income backgrounds, teenagers, and women from minority ethnic communities. We have three established and inter-related programmes of research: care in labour and birth led by Helen Spiby, women's psychosocial wellbeing led by Jo Green, and maternal and infant nutrition, which I lead. Capacity building is an important aspect of our work, and involves education and student supervision, from pre-registration through to doctoral levels. Evidence-informed policy and practice is a key goal and our work has informed national and international policy in maternal and infant health and care.

MIRU's recent and soon-to-be published work includes a large trial of midwifery support for women at home in early labour, a study to support the new child health strategy in preventing social exclusion, methodological work to develop a system of mapping local breastfeeding services together with outcomes, a review and economic analysis of the promotion of breastfeeding for babies in neonatal units (Renfrew et al, 2009), and a qualitative study of infant-feeding in Bangladeshi families.

I have never lost my commitment to breastfeeding, and I have continued to contribute to the evidence base in this difficult and contentious field. As part of this work, I established and led the national Public Health Collaborating Centre in Maternal and Child Nutrition funded by NICE. Given the scale of the public health impact of breastfeeding on infants and mothers – possibly greater than any other single public health intervention – it is problematic that so many health professionals, policymakers, and the public in general remain ambivalent, or even hostile to, developing positive strategies to enable women to breastfeed. Our series of critical and systematic reviews have broadened to examine and analyse not only clinical and health promotion interventions, but also wider public health and policy interventions such as restricting marketing, educating schoolchildren, and improving employment protection, to address the underlying sociopolitical issues. Input to research priorities,

commissioning appropriate research, and assessing the quality of research are all important components of a high-quality national research environment, and in my time in MIRU, I have sat on committees for funding bodies including the MRC and the National Institute for Health Research (previously the NHS research and development programme), I have served as deputy chair to the universities' research assessment exercise nursing and midwifery panel, and have been a member of editorial boards of journals including *Midwifery* and *Maternal and Child Nutrition*. Recently, I have been awarded senior investigator status with the National Institute for Health Research.

Building capacity, empowering midwives, women and families

MIRU continues to work for the integration of research with education, and the new pre-registration midwifery degree in York is strongly grounded in evidence. We have had a series of Masters and PhD students, some of whom have stayed on to work with us, others have gone on to make a difference in other settings. Linking evidence with change has remained a strong theme; I now jointly lead the maternal and infant health and care theme for the new Yorkshire and Humber health innovation and education cluster, which aims to address inequalities in health through multidisciplinary innovation and innovative educational developments. I have chaired the UK Breastfeeding Manifesto Coalition and the board of the charity Best Beginnings that works to address inequalities in health, as well as working with the NCT and other voluntary organisations, and worked at strategic level with international organisations, and chaired the WHO's Strategic Committee for Maternal and Newborn Health in 2003.

Looking to the future, MIRU's research and development work has identified barriers to positive change. These include the often unrecognised constraints on women's choices that result from their sociocultural context, the fact that particularly vulnerable families are often not reached or even included in research studies, a lack of understanding among health workers of cultural differences in the way families live their lives, inter-professional and cross-sectoral divides, and the organisational bureaucracy that can stop the implementation even of fundamentally important changes. These factors, and the growing inequalities in health that result, illustrate that there is a human rights element to maternal and infant health and care – and indeed, more broadly in health – that is largely ignored. As a consequence, the most recent evolution in my career is to study and teach a rights-based approach to health, looking at both national and international settings, for example Kennedy et al (2006). Human rights perspectives have much to offer maternal and infant health; surely the lack of resources and care in pregnancy, birth and postpartum that results in maternal and infant mortality and morbidity is an infringement of the fundamental right to life. I have come to see that human rights advocacy has much to offer maternal and infant health

and care, and that good quality health care can help in the fulfilment of other rights such as nutrition and participation, thereby jointly increasing the empowerment of women, families and communities.

Conclusion

Midwives make a unique contribution to the health, well-being and care of women, their babies and their families, whether working in clinical care or public health, educating future midwives, managing a service, or developing policy. The challenge for midwives and others in maternity care is to say and to do the right things, to avoid doing harm, and to contribute their valuable and informed perspective to the range of influences on maternity care. This challenge has been fundamental to the development and direction of my work in the past 30 years and more. It has propelled me into work as an academic, where I have found that I have needed a solid apprenticeship in both education and in good quality research. I have learned that making a difference to care – the whole point and purpose of work as a midwifery academic – requires the ability to integrate these with a knowledge and understanding of practice, policy, and the views of women and families. This needs ongoing engagement with communities outside of the academic sector, including practice, policy, advocacy, and regulation.

It is my experience that principle-centred working is fundamental to keeping a programme of work on track, as it will be battered by competing priorities, financial pressures, and the fact that deadlines always come in twos or threes, never one at a time. A focus on the most disempowered and a sense of justice will help to guide decisions about priorities and resources. Working closely with others in disciplines and sectors who can contribute the necessary knowledge and skills is needed, if you are to work to a scale large enough to make a difference. Humility, humour, and a sense of perspective are essential in such collaborative working, as there will always be someone more knowledgeable than you, and someone whose personality does not quite match yours. Identifying the right opportunity, or finding funding to support your plans, requires the ability to wait patiently and to act swiftly when needed. We are all shaped by our personal histories, and these principles have been shaped by mine, especially by the women and families I have worked with, and the generous and talented people who have inspired me and with whom I have had the privilege to work.

Whatever the context: community, hospital, public health, practice, commissioning, management, or policy – midwives and others working in maternity care will find their work is improved by a close alliance between research, education, practice and policy. Although I have had close encounters with the divisions between these sectors, there is evidence of progress and the development of new career structures for clinical academics and consultant midwives where it is becoming possible to work across the divides. Making a positive difference may be becoming just a little easier.

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Are midwives irrational or afraid?

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Abstract

Background. From the 1970s to the early 1990s, electronic fetal monitoring (EFM) became usual practice for professionals within the NHS. However, research has found that there are limited benefits for the infant and possibly serious consequences for the mother in the routine use of EFM for low-risk women.

Aim. Despite the evidence, midwives continue to use EFM, when intermittent auscultation is more appropriate; rational choice theory is used to explain why this might happen.

Method. The paper describes the criticisms of rational choice theory and explores how midwives make decisions

Results. Midwives are not irrational, but are hampered in their ability to implement the new guidelines by fear of practising outside the social norms of the institutions in which they work.

Conclusion. A reduction in the use of EFM will only be achieved if the social norms, such as reducing the fear of litigation, within the NHS are changed.

Key words: Electronic fetal monitoring, rational choice theory, evidence-based midwifery

What is the relationship between evidence and practice?

The RCOG and the RCM have taken as their standard that guidelines for professionals should be evidence based. Intuitively then, rational choice theory should provide a framework explaining how professional bodies commission and use research to inform guidelines for practice. While there is no doubt about the benefit of electronic fetal monitoring (EFM) for women with high-risk pregnancy and labour, the evidence consistently shows that its use in low-risk labours is associated with rising rates of intervention and increases the caesarean section (CS) rate, while failing to achieve its objective of improving outcomes for infants (Alfirevic et al, 2006; MIDIRS, 2003; Ellison et al, 1991; Vintzileos et al, 1993; MacDonald et al, 1983). In addition, it is known that while the use of EFM in low-risk labour reduces the incidence of neonatal seizures, it is ineffective in reducing the incidence of cerebral palsy (Alfirevic et al, 2006; Nelson et al, 1996), because intrapartum causation of cerebral palsy is rare (Nelson and Leviton, 1991). Despite this, the practice of using continuous external fetal monitoring in low-risk labours persists (Altaf et al, 2008; Hindley et al, 2008; Sandin-Bojo et al, 2006; Hindley et al, 2006; Albers, 2001; Williams, 1999). It has been suggested that the unnecessary use of a technology, such as EFM in low-risk labour, is characteristic of defensive medical practice and thrives in a professional environment marred by risk management and fear of litigation (Basset et al, 2000; McRae, 1999).

This reluctance among healthcare professionals to use well-

researched evidence is not new. Over a decade ago, Oakley (1999: 249) described her work in a maternity research unit as being inspired by '*evidence that healthcare practices are more often driven by guesswork, personal preferences, tradition, professional modelling and fear of litigation than on convincing and reliable data about their appropriateness, effectiveness and safety*'.

This appears to be the case in respect of the use of EFM. Luyben and Gross (2000) found that the evidence does not seem to be of great importance when midwives make decisions about intrapartum fetal monitoring, but rather that hospital policies and their professional training were more important factors. This is supported by the findings of Porter et al (2007).

How did it happen?

Initially introduced in the 1970s to allow close observation of mothers and infants considered at high risk of developing complications of labour or delivery, the use of EFM rapidly became widespread, with the presumption that if it improved safety in high-risk pregnancy, it would also have benefits in low-risk pregnancy. This 'presumption of benefit' went unchallenged for nearly 20 years until the early 1990s, by which time the use of EFM had become widely accepted as usual practice for professionals throughout the NHS. During this time, women also became more accepting of intervention in labour (Green and Baston, 2007). Indeed, there is evidence that a majority of low-risk mothers want

EFM in labour (Hindley et al, 2008), further demonstrating the extent to which it has become accepted as a normal part of childbirth.

Of particular concern to parents and healthcare professionals alike was the prevention of cerebral palsy, which was widely believed to be caused by intranatal fetal hypoxia. Cerebral palsy results not only in serious childhood morbidity, but also in expensive payouts in personal injury claims and damage to the reputation of the Trust and its practitioners. This fear of litigation is well founded. In 2001, the NHS Litigation Authority (cited by the RCOG, 2001) reported a figure of £242,782,343 as the total sum of claims paid out for obstetric cases in the preceding five years. These costs represent more than 60% of all litigation within the NHS (RCOG, 2001).

However the 'clinical efficacy of the tool (EFM) was never established conclusively' (Walsh, 2000). A systematic review of the evidence (Alfirevic et al, 2006) has confirmed that there are limited benefits for the infant and potentially serious consequences for the mother in the routine use of EFM. Indeed, this review found that routine use in low-risk labour increased both maternal and fetal mortality, because of the rise in the CS rate and operative vaginal delivery, caused by healthcare professionals concern about 'dubious CTG tracings'. In light of this new evidence, it has been recommended that intermittent auscultation is offered to women in low-risk labour (RCOG, 2001).

Seizing the opportunity to reduce the use of EFM would be a rational choice for midwives, in so far as it is philosophically sound, evidence based and enables midwives to promote normality in childbearing. Failure to adopt the guidelines calls into question midwives' commitment to evidence-based practice and implies irrationality.

Can rational choice theory explain why individuals persist with this practice?

Rational choice theory has its origins in economics. When the word 'rational' is used it implies that the individual's choices 'reflect the most preferred feasible alternative implied by preferences that are complete and transitive' (Green, 2002).

In essence, rational choice theory states that given a choice, individuals will act in a manner that provides them with the best overall outcome. According to Dogan (2002), there are three basic requirements for making a rational decision. The first concerns the information available to the individual about the most practicable of all appropriate courses of action, the second concerns the beliefs held by the individual about the cause of the situation, and the third concerns the subjective ranking of all feasible courses of action, derived from ranking the outcomes to which they are expected to lead. With regard to the first requirement then, when a midwife makes a decision about the most appropriate method of fetal surveillance for a woman in labour who has been assessed as low risk, the rational choice would be to follow the evidence-based guidelines, and use intermittent auscultation if this is a feasible option. While midwives agree that this is the 'gold standard' (Lewis and Rowe, 2004), many continue

to use EFM, suggesting that they either reject the evidence-based guidelines, or that other factors influence their decision. One such factor concerns staffing levels. Monitoring the fetal heart using intermittent auscultation is labour intensive. Guidelines advise that the fetal heart is auscultated for one full minute after a contraction, at least every 15 minutes in the first stage of labour and every five minutes during the second stage (RCOG, 2007). There is a perception among midwives in the UK (Hindley et al, 2008) and elsewhere (Lewis and Rowe, 2004; Walker et al, 2001), that this is not always feasible when delivery suites are busy. Indeed, as highlighted by the report of the four royal colleges' *Safer childbirth* (RCOG, 2007), in some areas within the NHS, only 27% of maternity units are able to offer one-to-one care from a midwife for a woman in established labour.

The second requirement in rational choice theory concerns the beliefs held by the individual. Midwives are trained to work from a philosophy grounded in physiology and the normality of the birth process. The training and experience of obstetricians, however, is based on abnormality and pathology, leading Premila and Arulkumaran (2007) to state that birth is the most hazardous journey ever undertaken. It is likely that individual midwives and obstetricians will vary in their assessment of the extent to which labour poses risk for the fetus, and therefore it also seems likely that a diverse range of beliefs exist within and between the two professional groups. On the third requirement, while it can be certain that parents, midwives and obstetricians agree the optimum outcome at the end of the process is a healthy mother and baby, clearly in labour, there are tensions between the competing interests of mother and baby. Against a background of widespread fear of litigation, it is possible that the best interests of healthcare providers would also play a part in the decision-making process.

Criticisms of rational choice theory may be practical, empirical or theoretical (Green, 2002). According to Green (2002), practical criticism infers that the theorist is not 'asking the right questions', that empirical criticism infers that 'the theory does not adequately account for the observed phenomenon', and theoretical criticisms relate to the nature of the assumptions made by the model and 'whether the conclusions stated by the theorist actually follow from the assumptions'. On a practical level then, rational choice theory is asking the right question, in so far as it seeks to understand what motivates individuals to act in the way they do. Empirical criticism is more complex. Beckford (2000: 225) contends that rational choice theory '*reduces complexity to artificially simplified models*' and is '*fundamentally flawed for leaving out emotion and morality from its accounts of decision-making*', while (Parker, 2000) considers that it needs to be supplemented with a more rounded analysis of the contexts in which decision-making takes place. Theoretical criticism concerns the assumptions made by the theorist and, according to Archer and Tritter (2000), the assumptions underpinning the theory are flawed. In their opinion, the theory restricts rationality to instrumental rationality and cannot therefore explain substantive rationality. They also contend that rational choice theory can neither

conceptualise 'structure and agency' nor the relationship between them. Other criticisms are that it fails to take into consideration social norms, and makes the assumption that all decisions are made rationally and not emotionally (Archer and Tritter, 2000).

For the purpose of explaining the gap between evidence and practice in relation to the use of EFM, rational choice theory therefore can be criticised empirically or theoretically. Empirical criticisms concern that it does not explain:

- How decisions can be made when there is more than one optimum outcome
- The moral aspect of decision-making, when those decisions involve the competing interests of mother and child
- Its failure to take into account emotion in decision-making. Decisions made out of fear cannot be rational in the classical economic sense (Zey, 1992)
- There is no consideration of the pressures exerted from within the NHS when choices are made.

Theoretical criticisms concern:

- The model does not take usual practice into account nor explain how practice can be changed
- It focuses on instrumental rationality – where 'the end, the means and the secondary results are all rationally taken into account and weighed'. (Weber, 1968: 25), but offers no means by which competing outcomes can be weighted
- It does not explain the relationship between the institution (NHS) and the individuals who work within it.

It seems clear that fear of litigation significantly influences the decision-making process. So widespread is the use of EFM, that in the event of an adverse outcome during labour, the CTG tracing remains the primary source of evidence used by midwifery and medical professionals to defend their management of the case (RCOG, 2001). In more recent years, it has also become the primary piece of evidence used by the legal profession to prosecute a case in the event of an adverse outcome, with the RCOG (2001) reporting some cases unable to be defended, because of what they describe as missing external fetal monitoring documentation (RCOG, 2001). When this occurs, in spite of a convincing body of evidence demonstrating the limitations of EFM as a fetal safeguard in labours assessed as low risk, it effectively sanctions members who practise outside the normal 'custom and practices' expected by experienced practitioners within the NHS, and illustrates what Porter (1995: 165) has dubbed the 'inertial power of tradition'.

How do midwives make decisions?

An early study into midwives decision-making found heuristics or 'rules of thumb' were used as a shortcut to decision-making, when the choices were complex and that midwives rely heavily on their past experiences to inform their present decisions (Cioffi and Markham, 1997). However, they caution that reliance on experience may cause bias.

More recently, three conceptual models of occupational decision-making have been identified by Crozier et al (2007b) that are specific to midwives and their use of technology. In their concept analysis, three typologies emerged. The new professional (NP), which they defined as deci-

sion-making where women are involved in the decisions, the classical professional (CP), defined as the professional assuming authority to make unilateral decisions based on experience and expertise and bureaucratic decision-making, defined as rigid adherence to policies and procedures. Crozier et al (2007b) found midwives aspire to CP and NP decision-making, however, in an analysis of an ethnographic study (Crozier et al, 2007a) using these typologies. Porter et al (2007) observed that the bureaucratic model was used most frequently and also identified that context and midwives' characteristics were barriers to the implementation of CP or NP decision-making. Contextual barriers involved fear of litigation and concerns about workload pressures, while barriers created by individual midwives' characteristics, included both lack of experience for junior midwives and reliance on tradition for more senior staff. Analysis of the evidence using these typologies as a framework reveals how each could contribute to the continuation of EFM in low-risk labour. When midwives use bureaucratic decision-making, they practise according to the usual policies within the hospital unit. Older and more experienced midwives, using CP decision-making, draw on both tradition and their experience, which may include the almost universal use of EFM. Midwives making NP-type decisions will negotiate with women, taking account of the mother's preferences as has been shown (Hindley et al, 2008) – many mothers want EFM in labour.

If midwives' decision-making cannot be explained by rational choice theory, then perhaps an exploration of Durkheim's concept of 'social norms' will be more fruitful. Coleman, as cited by Cheal (2005: 49) argues that sociology takes the existence of social norms for granted. In Coleman's view, two conditions are necessary for a norm to evolve, namely the 'demand for a norm' and the 'fulfilment of that demand'. In the early 1970s, there was certainly a desire among services providers and service users alike to reduce fetal injuries and EFM appeared to have the predictive capability to achieve that. However, now that its use has been properly evaluated, the faith placed in EFM to fulfil that demand and reduce or eliminate fetal risk in low-risk labour does not stand up to scientific scrutiny and its continued practical application is contributing to the rising intervention rates. Fears about safety dominate this debate and according to Peggs and Lampard (2000: 95), Durkheim considered the '*rational demands of society are closely connected to irrational forces*'.

What are 'social norms'? What are the effects of 'social norms' on decision-making?

Durkheim's work is focused on a belief in the importance of creating a well-organised and harmonious society in which individuals can live out their lives productively (Bilton, 1996). Without this harmony, a state of disorder that he called 'anomie' occurs (Bilton, 1996). In order to achieve this harmony, individuals are in need of constraint and this can be achieved through a process of socialisation, whereby they adopt the values and norms of society (Bilton, 1996). Durkheim emphasises the objective nature of norms and

values, which he calls social facts (Bilton, 1996). This concept of social facts became one of the fundamental principles of his theory. Durkheim defines a social fact as being 'every way of acting, fixed or not, capable of exercising on the individual an external constraint' (Durkheim, 1964: 13) and as a '...social phenomenon which exist(s) independently of the subjective appraisal of individuals' (Durkheim, 1964: xviii).

Durkheim argued that human society is not just made up of individual social facts, but drawing on an analogy between sociology and the natural sciences, he stated that social systems like biological systems are integrated and interdependent (Bilton, 1996). A social fact differs from an individual fact therefore because it is practised by a number of people, it exists independently of any particular individual and it limits the freedom of choice of the individual (Cheal, 2005). It could be argued therefore, that during the past 40 years, the widespread belief that EFM in labour would reduce fetal injury has caused its use to become a social norm and in turn limits choice for both women and midwives.

Swingewood (1993: 99-100) writes: '*Social facts were thus defined by Durkheim as structures which, through their manifest forms, constrain and regulate human actions*' and that social facts become '*...moulds into which we are forced to cast our actions and which resist all attempts to change and modify them by individual volition*'.

It was in these types of facts that Durkheim was most interested – the collective representations that together make up what he considered the collective consciousness (Cheal, 2005). Therefore in Durkheim's view, if we conform willingly to the constraints and demands of society '*...we are then victims of the illusion of having ourselves created that which actually forced itself from without*' (Durkheim, 1964: 5). In other words, once a practice like EFM has become accepted as normal, it is very difficult to change it, because to do so is to act outside the accepted norms. As Porter (1995: 165) has cautioned: '*Once patterns of behaviour become habitualised and institutionalised, it takes more than rationalist rejection to eradicate them.*'

Advocates of the importance of social norms, agree that individual action is more frequently determined by the norms and values of society, imposing external constraints on the individual actors (Dogan, 2002). These constraints may be better explained by what Durkheim describes as 'moral facts'. Durkheim (1995: 2) defined a moral fact as consisting of 'rules of conduct that have sanction'. According to Cheal (2005), Durkheim went on to explain how these collective representations influence the behaviour of individuals in society. Cheal (2005) identified four ways in which this occurred:

- Socialisation into the values of the culture
- Rejection of change
- Surveillance and sanction to limit deviance
- Practicality.

Can these collective representations be used to explain the actions of individual practitioners within the NHS?

- With regard to maternity services, it seems clear that individual practitioners working within the service are socialised into the culture and norms of the organisa-

tion through their education and training. While education for entry into practice is within universities, both medical staff and midwives complete their training in a form of apprenticeship with NHS hospitals, where their practice is supervised by senior members of their profession. Once their training is complete they are restricted to working within the NHS, as there is little scope for practice outside it

- Once the authority of the organisation is internalised within individuals it ensures they '*...reject changes to the fundamental ideas that they have learned*' (Cheal, 2005: 14). This seems to be particularly relevant to this discussion, where evidence from well-controlled studies challenges the usual practices of a generation of experienced midwives and obstetricians
- The power of the organisation can then be exercised through supervision to ensure individuals do not deviate from the norms of the NHS. This point is critical to the discussion. When the RCOG (2001) stated it was unable to defend its members without the CTG tracing, it reinforced the social norms within the NHS, and sanctioned members who practised outside them, leaving midwives fearful that they too would be unsupported in the event of an unexpected adverse outcome. Durkheim, as cited by Serge (2008), has argued that such public sanctioning '*reinforces the group's commitment to the violated norm*'
- In the face of public sanction for non-compliance, it then becomes a practical necessity to conform and adapt behaviour to the norms of the organisation despite the evidence.

Segre (2008) considers the relationship between sanctions and consciousness: '*Public sanctioning implies the predominance of the social form of consciousness, for the violation of collective sentiments, rather than consideration of individual costs and benefits is predominant.*'

Fear, or more precisely fear of litigation is the critical factor in this debate. It is known that midwives believe the objective nature of an EFM tracing will be their defence in the event of a poor fetal outcome and that this belief is heavily influenced by the social and medical domains in which they work (Hindley et al, 2006). Not only does this perception affect decision-making, but it seems to better explain the gap between evidence and practice by causing practitioners to adhere strictly to social norms. In Swingewood's analysis (1993: 112), this then results in a situation where '*...collective sentiments and beliefs predominate and the individual consciousness is scarcely identifiable*'.

Symons (2000) found that fear of litigation negatively affects midwives' confidence and alters decision-making as did Johansen et al (2002) who found that a culture of fear and blame was disempowering to normally competent practitioners.

For midwives, the use of intermittent auscultation for low-risk women in labour is philosophically sound and evidence based, but practising in this manner demands a degree of altruism from midwives, to reject the social norms that include EFM and promote normality in childbearing. Hindley et al (2006) found that midwives do genuinely fear

abandoning the philosophy of a technology-free birth, but that the institutional culture is a mitigating factor influencing care provision based on best evidence. These findings are supported by the findings of an Australian study (Hood et al, 2008) in which the experiences of midwives who were involved in an external review of services and the resultant legal proceedings were examined. The midwives who took part in this study discussed how their professional practice had been affected by the experience. Increased use of EFM is described as an example of the defensive strategies they used to feel safe and protect themselves from litigation. However, it is interesting that the Australian midwives (Hood, 2008) described 'strictly adhering to clinical guidelines' as one tactic used as a protective strategy. The study does not state whether these are the international guidelines produced by the RCOG (2001), or clinical guidelines reflecting the 'social norms' produced within the hospital, however, their increased reliance on EFM suggest it to be the latter.

This continued use of EFM, despite the evidence, to enable practitioners to feel safe could be described as 'functionalist'. Bilton et al (1996: 82) defines functionalism as '*a theoretical perspective associated with Durkheim and Parsons, based on an analogy between social systems and organic systems, It claims that the character of a society's various institutions must be understood in terms of the functions each performs in the smooth running of society as a whole*'.

From Durkheim's functional theoretical perspective, the gap between evidence and practice starts to make sense. The resources available to the NHS to provide health care are limited and the damaging effect of litigation reduces the funding available for primary care. The long-term interests of society are best served if health care continues to be provided through institutions that are financially viable, and therefore all efforts must be made to reduce the amount of funds spent on litigation. This in turn increases the pressure on individuals within the NHS to do all in their power to reduce litigation costs. Within such a large organisation, the cost of an additional caesarean section, performed on the basis of a rather dubious CTG tracing, pales into insignificance when compared with a potential personal injury claim. This creates a culture within which the imperative to act becomes paramount and encourages defensive practice.

Conclusion

This exploration leads to several interesting conclusions. The breadth of Durkheim's concept of social norms enables

the gap between evidence and practice to be understood and also gives guidance on how it can be changed.

Midwives are not irrational, but are hampered in their ability to implement the new guidelines by fear of practising outside the social norms of the institutions in which they work.

Birth is a normal physiological process and as such there will always be some uncertainty about its onset, progress and outcome. In this analysis, the external pressures imposed on midwives and obstetricians for security in the management of such uncertainty, appears to have contributed to the continuation of a practice that on balanced reading of the evidence is unnecessary. While midwives reject the notion that they are becoming dependent on labour room technology (Sinclair, 2001), it seems clear that the difficulty experienced by many midwives attempting to promote normality in childbirth is caused not only by the conflict that exists between the medical and midwifery paradigms (Worth-Butler et al, 1995), but is increased by the power of a healthcare organisation to protect its own agenda (Shallow, 2001). Pressure on healthcare staff to protect themselves and the institution from litigation has contributed to the continuation of a practice that interferes with the normal physiology of labour, and increases maternal risk. It is therefore argued that a reduction in the use of EFM within NHS maternity services cannot be achieved, until the social norms within the NHS are changed.

Recommendations

On the basis of this analysis, the following recommendations are made:

- Staffing levels should be improved to ensure all women in established labour have one-to-one support from a midwife
- Electronic fetal monitors should be stored in a central area in delivery suites and only brought into a delivery room if required
- Midwives should record in the medical records, the indication for using EFM and the indications should be audited monthly
- Malpractice claims against midwives who use intermittent auscultation in low-risk labours should be defended rigorously
- Research should continue into the causes of cerebral palsy and the findings more widely disseminated among healthcare professionals, the legal profession and the general public.

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Development of antenatal education to raise awareness of the risks of relationship conflict

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Abstract

Background. Relationship conflict and abuse occurs in everyday life and often starts or escalates during pregnancy with devastating health and wellbeing consequences, the most severe being loss of life. This paper is the second in a series of two – the first paper described and discussed the first phase of the study, exploring the experiences of participants attending meetings organised by the charity Start Treating Others Positively (STOP), which is based in Leeds, UK.

Aim. To explore STOP participants' views of what could be included in an antenatal parenting education session for expectant parents to enable and empower them to manage emotions and behaviour and prevent any relationship conflict escalating to abuse.

Method. An exploratory study involving 20 parents attending sessions organised by STOP. The university's health ethics committee granted approval and the standards recommended by the NHS Research Governance Framework for service users' involvement in research were applied. During December 2007 and January 2008, a schedule of open and closed questions was used to guide interviews. Data analyses were conducted by using a thematic analysis that involved the identification of emerging themes. Participants' suggestions of useful exercises and techniques to be included in an antenatal education programme were recorded.

Findings. Four themes emerged from the data: 'Why has nobody thought about it before?', 'sharing the parenting', 'learning to listen', 'creating space for me and for you'. Exercises and techniques for an antenatal education programme were suggested that would increase awareness of the risks of relationship conflict and provide preventive methods.

Conclusions. Participants' views and suggestions assisted in the development of a specific session on 'managing emotions, behaviour and any relationship conflict when becoming a parent'. Further research will be undertaken to measure the impact of this newly-developed programme for expectant parents.

Key words: Participatory research, service user involvement, STOP, public involvement, peer-researcher, professional knowledge, parenting education, evidence-based midwifery

Introduction

The confidential enquiries into maternal deaths estimates that 30% of domestic abuse starts during pregnancy (CEMACH, 2008). Prevalence rates during pregnancy vary greatly, but have been estimated by Torres et al (2000) as ranging from 3.9% to 8.3%. Younger women may be at a higher risk (Berenson et al, 1992). Samples from women's refuges show higher frequencies of violence during pregnancy – typically between 40% and 60% of pregnant women who live in a women's refuge are victims of domestic violence (Campbell et al, 1993).

Domestic violence is a child safety issue, and the unborn child is at significant risk. Violence has been identified as a major contributor to maternal and fetal morbidity and mortality, through both direct and indirect means. It directly affects fetal distress and fetal death (Dye et al, 1995), particularly where blows are to the abdomen in the third trimester (Ribe et al, 1993). It is also related to behaviour that indirectly affects fetal health. Amero et al (1990) found that pregnant victims of violence were more likely to use alcohol and drugs, with their partners being more likely to use cocaine and marijuana than non-victims.

The UK government has published a policy document to assist health professionals to deal with domestic abuse, and preventing cases of domestic violence is one of its priorities (Department of Health (DH), 2005). The NHS has been working over the last decade to educate and train health professionals to respond to the needs of women and children and routine en-

quiry has been introduced. However, limited work and research has been undertaken on how to prevent domestic violence.

Internationally, a range of programmes have been developed to address existing domestic violence. This includes those based on the Duluth model, which is based on a strict patriarchal violence concept and presumes that all violence in the home and elsewhere has a male perpetrator and a female victim. It rejects any concept of mutuality or symmetry in abusive relationships. It developed the Duluth (power and control wheel) tool (Domestic Abuse Intervention Programs, 2008). It also includes cognitive behavioural therapy, relationship enhancing programmes, and integrated domestic abuse programme (IDAP) approaches. A recent meta-analytic review of perpetrator programme efficacy found that treatment programmes have a minimal impact on post-treatment recidivism at best (Babcock et al, 2004). Babcock et al (2004) also found that the treatment effect size for Duluth-type programmes (which was small at around $d=.20$) was no better than cognitive behaviour therapy and significantly worse than those found for a 16-week group therapy and a 12-week relationship enhancement skills training group that showed quite large effect sizes.

Despite the government's commitment to evidence-based practice, there is at present no move to employ these criteria to UK-based partner violence treatment programmes. Indeed, the IDAP programme does not have any available data on efficacy despite being run for over eight years (Integrated

Domestic Abuse Programme, 2010). The organisation Respect was created in March 2001 as a national association for domestic violence perpetrator programmes and associated supported services. *The Respect accreditation standard* applies to all organisations providing domestic violence prevention programmes (DVPP) working with male perpetrators of domestic violence and integrated support services for partners/ex-partners of these perpetrators (Respect, 2008).

Aim

The aim of the study is to explore the views and suggestions of participants (who are parents) attending an abusive behaviour preventive programme organised by the UK-based charity Start Treating Others Positively (STOP) on what they think would be helpful to include in an antenatal parenting education session on managing emotions, behaviour and any relationship conflict to prevent escalation to domestic abuse.

Ethical considerations

The university's health ethics committee granted approval and the NHS Research Governance Framework standards recommended for service users' involvement in research were applied during the study (DH, 2002).

Methods

Between December 2007 and January 2008, STOP participants attending either one of the three weekly sessions for men or the one weekly session for women were given information one week prior to the start of the study. The lead researcher (MS) discussed the aims and objectives of the study with participants and a purposive sample of 15 men and five women were recruited. A written consent was signed and interviews were undertaken in a private room at STOP. This room provided a comfortable and safe environment where the participant and researcher could engage openly; semi-structured questions were asked and approximately 45 minutes was allocated. Participants were asked their views and suggestions as to what they thought should be included in an antenatal education programme (see Table 1).

Data collection and analysis

During the interviews, demographic and characteristic details were recorded. Participants' responses were documented on a log sheet and the responses were cross-checked at the end of the

interview and also the following week when the logs had been typed. Any misinterpretations were corrected and participant authentication of their views and suggestions was given.

The written transcriptions were read by three researchers independently (MS, SD, NGK) and then collectively. An analysis of the participants' views and suggestions of what would be helpful to include on how to manage relationship emotions and conflict in an antenatal education session was interpreted and then agreed. The three researchers made marginal notes, identified key words, phrases and concepts and emerging themes. Exercises that were frequently suggested were then listed and unanimously agreed by the three researchers.

Results

In total, 15 men participated and five women. Five participants were recruited from each of the three-weekly men sessions and a further five from the one weekly women's session. The age range was from 28 to 60 years, with a mean age of 38 years. In total, 17 were white UK, one was Irish, one was black UK, and one was from the Middle East.

In total, 11 were employed, one was self-employed, six were unemployed and two were students in higher education. Marital status was recorded as ten married, four separated, one divorced, one co-habiting and four single. Four participants reported that they had a physical disability. Eight participants were referred to STOP by a health professional, four by other public sector professionals and eight self-referred or were referred by a family member. Time attending STOP varied from two months to ten years on and off.

Major concepts were identified and four themes emerged: Why has nobody thought about it before?, sharing the parenting, learning to listen, creating space for you and me.

In addition, a range of exercises and techniques that could be taught in these classes was suggested (see Table 2).

Thematic findings and quotes

'Why has nobody thought about it before?'

All participants thought that developing and introducing an adapted STOP session as part of an antenatal education programme would be beneficial in preparing expectant parents on how to manage their emotions and relationship conflict during the transition to parenthood. A few also thought it should be introduced into formal education and be taught in schools:

Table 1. Questions directed at participants to gain their views and suggestions for an antenatal education session to raise awareness of the risks of relationship conflict and to introduce preventive methods

- What do you think about introducing an adapted STOP programme for couples having their first baby?
- How do you think it may help these couples (if at all). Please explain your answer
- What do you think would be helpful to include in a parenting education session to enable couples having their first baby to manage relationship conflict and their emotions?
- What STOP exercises, specifically, do you think would be helpful to include in an antenatal parenting education session?
- Please explain and discuss why?
- What STOP exercises do you think should not be included in an antenatal parenting education session?
- Please explain and discuss why?
- Do you have any further suggestions on what should be included in the antenatal parenting education sessions?
- Can you please explain why you think these aspects should be included?

Table 2. Exercises and techniques for an antenatal education session to increase awareness of the risks of relationship conflict and preventive methods

| STOP tools and techniques |
|---|
| Anger ladder – an exercise to identify the escalation of anger signals using a nine-point escalation scale |
| Time out – a coping mechanism to take the heat out of the situation and opportunity to reflect on the problem or issue |
| Emotional tank – an exercise to recognise how and what emotions build up inside a person that can lead to an abusive outburst. Strategies to reduce the risk of emotional overload are worked through |
| Winding up/down – 15 examples of ways to wind yourself up and a corresponding way to unwind are worked through |
| Positive/negative language – an exercise that uses 16 positive statements to promote positive self talk to reduce anger levels |
| Balanced argument – guidelines using eight concepts to assist couples in having a balanced argument are worked through |
| Role reversal – people put themselves in their partner's role to increase understanding and ability to empathise |
| Real-world scenarios – examples of every day stresses and problems parents with a new baby face and coping strategies that could be used |
| Costs of a baby |
| Possible financial problems |
| Recognising and dealing with financial pressures and abuse, through withholding funds and resources |
| Role play – real-world scenarios are acted out to give participants an insight into the realities of parenthood |
| Computerised baby – a model baby that mimics a real-life newborn to give participants a sense of how real babies behave |

"I feel this would be helpful as it is much better to know before it gets out of hand. It would have been so useful if I had had this. You need awareness of how anger builds up and recognising this and the signs. You need to make time to still do things you are interested in, discuss how you feel and talk about how you feel. You need to let your partner know this and not to be aggressive" (participant 2).

"It is a fantastic idea, get them early! Life learning skills – they need this before having a baby. You know domestic violence, people can kill each other, it often starts as a small problem that they can't sort out and this grows bigger, so this is a great time to get them when they are starting off" (participant 16).

"I'm surprised that nobody hasn't [sic] thought of it before. It is an appropriate time to do it as it will help them prepare to some extent. In fact, it should be compulsory learning what to expect, yes, I agree with this 100%. It can help couples stop making mistakes" (participant 5).

'Sharing the parenting'

Parenting was identified as an emerging theme and several participants felt it was important to make expectant parents aware of increased stress and pressure that can occur after the birth and that frustration, anger and even violence can happen: *"The need for both parents (mum and dad) to be involved in the care of their baby – it needs to be highlighted that it is*

about getting the balance right. Often dads get left out and they need to be included more. They have feelings and emotions as well you know and it's okay to cry and let it out if it helps you release feelings and emotions" (participant 19).

"I wasn't taught anything about parenting. I mean about being a parent that is. Learning how to communicate with each other is really important especially when you are having the baby and after the baby is born. You can easily fall out due to lack of communication. There is a real need to pass down knowledge, from wise men and wise women. You are taught to read and write but not about being a parent. We have both learnt a lot over the years and at times it is not easy" (participant 16).

'Learning to listen'

Some participants discussed how an adapted session would introduce life skills and strategies that could help expectant parents manage emotions, behaviour and relationship conflict:

"This could help stop conflict happening and give them some ideas. It could really help young parents especially, as it would be introducing 'part of life skills' and some strategies, for example, how to deal with your feelings and emotions, which can be all over the place after having a baby. Fall outs can happen, but with good communication skills and awareness of this, couples would be enlightened as to what to expect and how to deal with it better" (participant 14).

"Not to forget each other, remember why you are together. A baby is demanding, so don't take it out on your partner and blame him. You need to share and learn how to say how they feel and stop blaming. Think how he feels and ask him how he feels, this will help you both manage conflict much better. It's about being a family now!" (participant 7).

'Creating space for me and for you'

The importance of developing coping strategies that create personal space, time for reflection and undertake activities without being perceived as abandonment and being unsupportive were suggested:

"I definitely think that coping strategies should be included. The importance of 'time outs', but not leaving the house as she might think you are abandoning her when she needs help. Going to another room instead to create some space can be helpful. I think couples need to learn how to recognise their symptoms of anger, for example, sweaty hands, clenched fists, raised temperature, something going on here! This can escalate so make them aware of this" (participant 9).

A few participants discussed how alcohol was a risk factor and could increase the risk of domestic violence and suggested not to drink alcohol as a coping strategy:

"Not to use drink as a coping strategy, especially when you have just had a baby. Drinking can increase the risk of falling out and arguments. Some people don't know when to stop drinking and when they have had enough, they can become aggressive when they have been drinking. Couples need to be responsible and drink can be a root cause of arguments and can lead to violence" (participant 15).

Rationale for exercises and techniques suggested

Several participants suggested certain STOP exercises they

thought would be helpful to use during parenting education: *"I think understanding how you can wind yourself up and yourself down would be an excellent exercise to do and the emotional tank and anger ladder would also be helpful. How to have a balanced argument with your partner can stop fall outs. I also think putting the emotional tank and anger ladder posters up in GPs' surgeries and antenatal clinics when couples are waiting to be seen so they can read them and learn from them would be good to do"* (participant 12).

"An exercise that looks at real-life scenarios and role reversal would be helpful. All exercises help you understand why other people behave the way they do. I do not think any of the exercises would offend young parents" (participant 20).

The exercises and techniques set out in Table 2 address issues raised in the four themes above. Designing an antenatal programme based on the themes identified would be a first step towards an empirical study of the feasibility of delivery and efficacy of outcome for such a programme.

Discussion

There are several theories that can be applied to the phenomenon of family violence. Bandura's social learning theory (1973) suggests that children will imitate the actions of their parents. Therefore, if a parent is violent in the home, aggressive styles of behaviour and anti-social responses are modelled for the child. This can distort the child's views on conflict resolution when they become parents. The attachment theory proposed by Bowlby (1969) argues that there is a critical period in infant development (six to 18 months) where close attachments to adults (usually the mother) are formed. This theory would hold that if parents react in a sensitive, responsive, accessible and accepting way, a secure attachment can develop. However, the theory would also predict that if parents are insensitive, unresponsive, unacceptable and inaccessible then a child can become insecure. It is argued that insecurely attached children have an increased risk of psychological and conduct disorder in adulthood that can cause problems when they are forming relationships with siblings, peers, partners and their own children.

Patterson et al (1989) have discussed a cycle of violence in which poor parental discipline and violence during childhood can lead to anti-social child behaviour problems. This then can lead to rejection by peers and academic failure, with a consequent commitment to deviant peer groups, leading in turn to adolescent delinquency and even crime. Browne and Herbert (1997) highlight the inter-generational cycle of violence and claim that this cycle is often perpetuated by a person who has experienced violence in the home as a child. Linder and Collins (2005) found in their longitudinal cohort study that *'...deficit skills in regard to managing conflict and negative emotions in intimate relationships may be rooted in familial experiences and may persist into the close relationships of adults'* (Linder and Collins, 2005: 259). However, the data from phase one of this study (Steen et al, 2009) indicate that individuals can break out of the vicious cycle of domestic violence if they are given meaningful tools and techniques to do so. This paper suggests that introducing these tools and techniques at the beginning of the parenthood journey might break the cycle with the parents before the next generation of children encounter it.

The UK's DH (2008) published a report on health inequalities. This document focuses on five key areas, including the need to invest in early years and parenting. It outlines the steps that the government has taken to disrupt the inter-generational cycle of health inequalities by supporting parents and families to improve their health. Governments also need to take serious measures to break the inter-generation cycle of violence as this has clear implications for health and wellbeing. Preventing future cases of domestic violence has been highlighted as a priority by the DH (DH, 2005), but limited resources are available to make this happen. It appears that more focus and resources have been placed on bringing perpetrators to justice. Prevention is more likely to break the cycle of violence, and this then would have an effect on the need for interventions and criminal justice.

Theoretically, domestic violence has been characterised as an expression of embedded power hierarchies and particularly patriarchy by some of those working in this area (DAIP, 2008). However, even when studying patriarchy at the individual level, a meta-analysis of patriarchal ideology and wife assault found that only a man's attitude towards violence predicted wife assault, with no consistent support for any link with traditional gender attitudes or gender schema (Sugarman and Frankel, 1996). There is even some evidence to suggest that patriarchal values may actually inhibit aggression towards women. Kantor et al (1994) found that more traditional Mexican men, those who endorse machismo values of dominance, independence, and obedience of women and children, were less likely to use physical aggression against a partner than were Anglo-American or 'Americanised' Mexican men. This may be due to the belief in 'chivalry' (Felson, 2002).

Indeed, an analysis that locates violence in social systems of organisation and of power leaves little room for change unless such systems are resisted wholesale. The potential for the programme proposed here is to permit individuals to recognise and respond to their potential or actual violent behaviours, and to develop strategies and techniques to prevent this occurring.

Some research also finds that a high proportion of violent relationships involve mutual aggression. Davies et al (1995) found that in their sample of conciliation-counselling couples, the majority of couples reported that physical aggression and/or controlling behaviour was used by both partners. Graham et al (2004) investigated physical aggression in a sample of 2027 UK adults. They found that of those who reported involvement in partner aggression, 52% reported mutual physical aggression (there were no significant differences in men and women reporting mutual aggression), 25% reported being a victim only (with men being significantly more likely to report this than women), and 24% reported being the sole perpetrator of physical aggression (with men being significantly less likely to report this than women). Similarly, Anderson (2002) used data from 7395 married and cohabiting couples and found that 70% of couples reported mutual violence, 14% reported perpetration, and 16% reported victimisation only.

Education on relationships should be included in antenatal parenting programmes. Positive parenting examples could be utilised that demonstrate mutually appreciative solutions to deal with stresses for both parents that moves away from gender politics.

This study has generated valuable knowledge and insights from parents who have experienced abuse in the home, who have been abusers, and who have then gone through a 'positive abusive behaviour change process' while attending STOP. The views and suggestions they offered were based on real-life experiences. Their insights can be viewed as credible evidence to support maternity services and the education sector to develop managing emotions and relationship conflict sessions. As one participant stated: "It's like Disney World, you can describe it, but until you go there you just don't know what it is really like." Expectant parents need emotional parenting education, including opportunities to explore and discuss their fears and anxieties and to learn skills in managing conflict in mutually amenable ways that will prevent escalation to violence.

Conclusion

Relationship conflict that can lead to domestic violence and child abuse is more likely to start during pregnancy and childbirth than at any other time. A preventive approach that can enable expectant parents to manage their emotions, behaviour and any relationship conflict would be a valuable tool in limiting the emergence and escalation of new and continuing cycles of abuse. This second phase of the study has identified a possible basis for such an approach.

Further research will be undertaken to measure the impact of this newly-developed approach for expectant parents, which will be piloted as part of an ongoing antenatal parenting education programme in a large maternity unit in the north of England.

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An evaluation of a midwifery service within a Sure Start Children's Centre

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Abstract

Background. This paper explores the provision of care provided by midwives who were based within a multi-professional team within a Sure Start Children's Centre in the south of England over a five-year period.

Method. A qualitative evaluation was completed with reference to the targets set out in the UK Department of Health National Service Framework and the *Every child matters* programme. Focus groups and individual interviews were used to determine the experiences of women, their partners, staff and professionals using the Sure Start midwifery service.

Analysis. Qualitative analysis was carried out and themes were identified from the data.

Results. Six significant themes emerged: staff and services at the centre; the centre midwives; enabling parents; 'Bumps and babies' and 'Bosom buddies'; parents moving beyond midwifery services within the centre; and social change takes time and commitment.

Conclusions. Midwives working within a children's centre provide a range of services including support to families in the local community. Midwives working in this way act as a resource for a range of local activities and opportunities that can be accessed through children's centres to enhance parenting skills. These findings are contextual in nature.

Recommendations. A multidisciplinary approach to health care that includes maternity care can provide appropriate accessible care for women and their families who are vulnerable and who live in deprived areas.

Key words: Midwifery care, Sure Start, evaluation, focus groups, social midwifery model, evidence-based midwifery

Background

It has long been recognised that social disadvantage leads to vulnerability and impacts on health and wellbeing (Acheson, 1998; Department of Health, 1998). The UK government provided £542m between the years 1999 and 2002 to set up and develop Sure Start Children's Centres in targeted deprived areas across England (Department of Health, 1999). Sure Start centres were challenged to provide accessible community-based services that would enable families with children under five to improve their health and wellbeing. Achievement was linked to public health targets including smoking cessation, promoting

breastfeeding and engaging with so-called hard-to-reach clients, such as young pregnant women and families experiencing complex life events (National Evaluation of Sure Start Programmes, 2004; 2005a; 2005b). In 2004 *Every child matters: change for children* (Department for Education and Skills, 2004) reasserted the Sure Start vision. The aim was to support families within their communities offering interventions and strategies that could prevent escalation to a crisis situation. The needs of children were also reinforced by the Children's Act, and the appointment of England's first children's commissioner in 2005 (Department for Education and Skills, 2004b).

Following the *Every child matters* programme, existing Sure Start centres were targeted to become Sure Start Children's Centres to reflect the expanded support to children and young people up to the age of 19 (Department for Education and Skills, 2004a). The services initiated by Sure Start local programmes were expanded to include integrated early years' education and childcare, programmes and activities to promote positive parenting and employment, plus child and family health care such as midwifery and health visiting (Department for Children, Schools and Families, 2008). Services were managed in partnerships with public, private and charitable organisations to design and deliver services in collaboration with local communities – there are over 3500 centres supporting more than 2.4 million young families (Department for Children, Schools and Families, 2007; 2009; 2010).

The inclusion of midwifery care highlighted the link between *Every child matters* and the *National Service Framework for children, young people and maternity services* (NSF) (Department of Health, 2004). Within the NSF framework, 11 standards introduced targets to improve the lives of children, young people and parents. Standard 11 called for further development of the *Changing childbirth* (Department of Health, 1993a; 1993b) philosophy to promote women-centred care and encourage choice and control for users of the maternity services. In response to the worrying rise in mortality of women with mental health issues (Confidential Enquiry into Maternal and Child Health, 2007), the need for a strategy to improve health care was identified along with the promotion of physical wellbeing for the mother and baby and the move toward healthier lifestyles (Rowan and Bick, 2007).

Local context

The Sure Start Children's Centre at the focus of this study was in the south of England. The centre was set up in 2001, and its services include a wide range of formal and informal activities aimed at developing and enhancing the social and physical wellbeing of children and their families. It is administered in collaboration with the local council and the National Children's Home. Services were provided by midwives, social workers, health visitors, nursery nurses, project workers, early years' workers and specialists, such as speech therapists plus administrative staff. Volunteers play a significant role in the operational and strategic running of the centre, which was managed by an experienced social worker.

The area in which the centre was situated was associated with low-income earners, higher than national unemployment rates and social housing. Less than 1% of the UK population live in an area characterised by low income and high unemployment (Upmystreet, 2010). One fifth of the population in the postcode area were single parents (Upmystreet, 2010). The local population was more mobile compared to other areas in England, and it was common for children to enter secondary education

Table 1. Data collection methods

| Focus groups | Number |
|--------------------------------|--------|
| Women | 3 |
| Centre staff | 2 |
| Community midwives | 2 |
| Sure Start midwives | 2 |
| Face-to-face interviews | |
| Partners | 2 |
| Women | 2 |
| Stakeholders | 2 |

with below average grades. As an example, the nearest primary school to the centre had results in English and maths that were 30% to 35% below the national average (Upmystreet, 2010). GCSE results for the two closest secondary schools were half the national average (Upmystreet, 2010). Violence against individuals was almost double that of the rest of the UK (Upmystreet, 2010).

Primary care services existed in the community, and hospital maternity services were provided at a birth centre and an obstetric unit that were both five miles apart. In scoping the diverse health and social care needs of the local community, the centre staff identified that 25% of attendees had needs linked to one or more issues that included safeguarding children, domestic violence, substance misuse, being a family in crisis or teenager, having learning difficulties or complex medical history. The centre services were evaluated in 2005 (Sharples et al, 2005) via a midwifery audit that prompted the need for a more comprehensive evaluation of midwifery practice at the centre. Funded by the children's centre and Bournemouth University, this paper reports on the comprehensive evaluation of midwifery services within the centre between 2006 and 2007.

Aim and objectives

The evaluation explored the role of the midwives by listening and attending to the experiences of individuals and groups who had insight into the activities of the centre midwives, alongside consideration of contextual demographic information relating to the community.

Methodology and process

The evaluation was supported by the university and local research ethics committee. A qualitative approach was taken as it focused on social relationships and interpretation of meaning within the natural environment (Flick, 2002; Holloway and Todres, 2003). Two data collection methods were used that best met the aims of the evaluation – focus groups and interviews.

Focus groups enable individuals to share their experiences alongside that of others. In this way, a large amount of data was gathered in a comparatively short time, with

comments and stories being generated via the interactive process of the group (Barbour and Kitzinger, 1999). To enable the sharing of experiences, individuals attending need to feel they were in an environment of safety (Williams and Katz, 2001). The use of a room within the centre plus crèche facilities and refreshments were available for all focus group participants. Focus groups were facilitated by two experienced research midwives – one acted as facilitator and the other as observer (Bryman, 2001). Krueger and Casey (2000) assert the skills required for these roles are being a good listener, observer and reflector.

Table 1 identifies the study participants involved. Questions were generated from the *Every child matters* (Department for Education and Skills, 2004) and NSF (Department of Health, 2004) publications. Focus groups were negotiated with women who had received midwifery care within the last year, partners of women and lay people and professionals working at the centre.

Women who had received midwifery care from the midwives based at the centre met the study criteria and were sent information via a family worker. Following agreement, interviews took place in the participants' homes. Other individual interviews were with stakeholders who had a direct or indirect role in relation to the midwives' practice at the centre. All individuals willing to participate in the study registered their interest with the receptionist at the centre who notified them of the dates for the focus groups. The role of the receptionist was to provide the potential participants with information about the study without them having to meet the researchers. This protected the potential participants from coercion into the study as they did not have to meet the researchers first, and gave them time to decide if they wanted to take part. Prior to the recorded focus group interview, the researchers answered outstanding questions regarding the evaluation and gained verbal and written consent. All names of participants were changed to respect confidentiality.

Data collection

Semi-structured interviews were used to guide a participant in a conversation to discuss particular issues. They are commonly used in social research as they can facilitate an in-depth response from the participants (Robson, 2002; Frey and Fontana, 1993). Once the researcher had responses to the main questions in the interviews and focus groups, follow-up questions sought to gather the personal experience of the respondents. The semi-structured face-to-face nature of the interviews enabled the researchers to listen carefully to what was being said and redirect respondents if they moved beyond the scope of the evaluation (Robson, 2002).

Data analysis

Following data collection, the researchers made field notes and reflected on surrounding issues that stood out during the focus groups and interviews. All interviews were transcribed verbatim and analysis moved to identify themes significant to the study. The focus group analysis

was informed by Krueger and Casey (2000) and Frogatt (2001). Frogatt (2001) asserts that analysis is fundamentally a process of transformation and that there are several ways of undertaking the process. She identified four principles adopted in this study:

- Data management: involving practical and ethical issues of data storage, labelling, and format in terms of its original state and transcribed state
- Data description: in the transcribed state, the qualitative data underwent a process of simplification and reduction in order to identify themes of significance. This process involved reflective reading and re-reading of the transcripts and cross-referencing between researchers of the emerging themes to promote trustworthiness
- Digging deeper: having identified key themes, other emergent themes and nuances were identified alongside published work to aid the development of a theoretical framework
- Data presentation.

Results

From all of the data analysed, six key overall themes emerged and are presented below.

Staff and services at the centre

Engagement with the centre services accessed through the midwives also supported 'hard-to-reach' individuals in need to receive care. The centre staff were open and flexible in the care they provided for the local community:

"It's almost like being a friend to the women. By not being judgemental, they will, they do open up and we have to maintain that professional edge, but I think the way we are, they feel safe with us and able to reveal more to us, and we've got the time for them" (staff).

"I think we do overlap, but we discuss things as there are some families where there is a lot of input and therefore possible overlap and we need to say, OK. What is the most pressing issue of this family and who is the most appropriate worker to be involved?" (staff).

A typical response when describing the ambience of the centre:

"I suppose it's a quite pleasant atmosphere, isn't it? I mean you can go into some places and people are a bit anxious and staff, well, they can put you off a little bit and you can sense when people are like that. So far I have not come across anybody like that here" (parent).

This next quote is an example of how the centre activities support both parents and children's development:

"If you look at the projects now, it is very heavily weighted towards providing services to enable parents to do things. So it might enable them to do a computer course or a parenting course or might enable them to go on a self-esteem course, but the facility that enables them to do this is the crèche" (staff).

Midwives were part of the centre's multi-professional and lay team and maintained their links with the community midwifery team. The integration of centre midwives enabled good communication links with the community

midwives. Centre midwives being part of the centre encouraged women to attend and use the range of services on offer:

"I think it is that here we are meant to be easy to access, within easy walking distance, so people can and do access things. It is also about building up relationships with people so they feel able to ask questions and they are able to build trust and have their worries and concerns listened to" (staff).

The centre midwives

The centre midwives' role and responsibilities were to address public health targets; the care they provided was in addition to usual antenatal care women received from their community midwives. They did not carry a caseload of women, but saw any local women who were pregnant. Local midwives recognised the value of this arrangement: *"From our point of view, it's really quite handy with the more difficult cases, people that need a lot more input, you know, it's quite nice that you can talk to a centre midwife and they'll sort of take it on and they've got time"* (community midwife).

The centre midwives understood the community midwives had no time to follow-up individual issues:

"We are noticing it more and more, a history of depression, on medication, or a history of self-harm and then nothing is followed up" (centre midwife).

While the centre midwives had structured events within their working day, such as facilitating groups and attending case conferences, they could be flexible in responding to women's needs:

"Sometimes I would be with them an hour because I was not there as far as they could see in any specific role other than just a friendly midwife and sitting with them. They would just start telling their stories and then I would find there were far more things they need support and guidance on" (centre midwife).

Parents indicated how this system enabled the building of relationships:

"When we asked for help here they were brilliant, it was never, you know, we are too busy right now come back tomorrow, like you know that is no problem at all I will pop over to see you in... in an hour's time or something and she would just pop across" (parent).

The creation of a social model of care in the antenatal and post-birth periods supported local women, some of whom lived a chaotic lifestyle:

"I see them as being people who find it more difficult to access (mainstream) services; they need a little bit more help to get there. Mainstream care has very rigid structures, there's a clinic at a certain time, and you have an appointment at a certain time. There's an expectation that you're able to attend and that you will attend. When actually for a lot of these people, given everything else that's going on, that's just not gonna work for them and the system's just not flexible enough" (centre midwife).

For one client group, the strategy was to create a lunch

group for local teenage women. Here one of the centre midwives describes their action:

"We managed to get them vouchers for a free lunch in the café. So we said 'why don't you come, come to the café for a free lunch, pregnancy lunch group'. So they sat in the café which feels OK... So we sat around the tables, all ate together, then we had the youth worker from the young mums group come over and one of our family link workers dropped by, the breastfeeding counselor dropped by and all kind of things, which were done quite casually. And again, like the other group, 'cos we were sitting there, they all started talking. So we were able to get out some of our pregnancy posters and said 'look this is what happened in you', 'this is what the baby looks like', we had some models of a baby in the uterus and it got them going, it got the conversation going" (centre midwife).

In the five years the centre midwives have been in post, they have moved from providing 'add-on care' to holistic health and social care. This is not only midwifery care (for pregnancy and postnatally), but general health care and social support:

"My baby stopped moving... I was panicking and then I saw the centre midwife and she heard it and it started moving around... so that was good" (parent).

It was also valued by partners of women, for example: *"Well, when my wife was getting towards the end of the pregnancy, the centre midwife was coming round quite a lot to check on stuff and at Bumps and babies group they would always be there to listen to the heart beat etc"* (parent).

Enabling parents

For some parents, the engagement with the centre via the midwives was a platform for further interaction and personal development. Parents who attended sessions or groups and engaged with others in an approachable, chatty but non-judgemental way were approached to become a 'buddy'.

Preparation and training for the buddy role was provided by the centre. Buddies were voluntary participants and could opt in or out:

"If it's a good day and they are quite up for talking to new parents then they wear their badge and they will help meet and greet new parents" (centre staff).

One young woman who engaged with the centre during her first pregnancy as a teenager and went on to complete other short courses before becoming a buddy had this to say:

"There was one parent in particular I can think of who I didn't think would have gone anywhere near something like that, but not that long ago did do it and who's come on leaps and bounds in terms of attending other courses. I was here on a Saturday dropping some stuff off... and she shouted hello across the road and this was someone who wouldn't have said 'boo to a goose' in the past. It was remarkable the change, the confidence in her and I am sure that will reflect in her parenting" (centre staff).

'Bumps and babies' and 'Bosom buddies' groups

The 'Bumps and babies' group was for pregnant women and those with a newborn baby up to one year of age and provided an opportunity for pregnant women to meet with each other. 'Bosom buddies' encouraged women to meet with each other and their babies on a regular basis and to share experiences of breastfeeding. It also included the presence of a breastfeeding counsellor. The groups introduced people to each other to promote sharing and learning from individual experiences. The midwives prepared for the 'Bumps and babies' group by making everyone sit on the floor or on children's chairs to encourage play with children on the floor:

"They made a conscious decision to take away most of the adult chairs in the room so we've got child size chairs in there, we've got bean bags on the floor. So, actually, everyone has to get down" (centre midwife).

The meetings occurred at several locations and with multiple members of the centre team:

"We were helped by having the early years' workers there, and some of them are really brilliant. They work in the same way as us, so we talk together before about how we want to run it and talk about how we want it low level so they can play with the older children" (centre midwife).

A mother reflected on her experience of attending 'Bumps and babies':

"We would sit around and chat. Basically what they've got here, your (older) children in the crèche. Then you, you could have an initial chat with the midwives about your pregnancy and they would listen to the baby every week as well" (parent).

The informal nature of the group supported interaction between parents, for example:

"Well you get out of your house for a bit and socialise and you are not looking at the same walls all the time" (parent).

The objective was to enable understanding, promote positive parenting, healthy lifestyles and promoting friendships between members of the local community:

"The centre midwives are very good at facilitating discussion, and helping mums to share their experience by saying 'Oh, you could tell so and so about your experience of that', or promoting intermingling and this mum can get across the point the centre midwife wants to get across without having to do it herself which is brilliant" (centre staff).

"I came to the 'Bosom buddies' before I had the baby and they got the dolls out and they got another young mum in and just showed us what to do and everything really. Only, 'cos I've built up friendships as well, that's another good reason to come" (parent).

The running of 'Bosom buddies' was dependent on renewing funding for the breastfeeding counsellors. One strategy put forward by the researchers was to amalgamate the group with the 'Bumps and babies' group. This would have enabled local women and the breastfeeding counsellors to share the benefits of breastfeeding and act as role models with a wider audience, there was concern

that this would stop some women who were not breastfeeding from attending:

"At the 'Bumps and babies' group, there are quite a few breastfeeding mums. Not all of those mums choose to access the breastfeeding group. When you ask them they say, 'oh no, I didn't want to go to that'... they perceive the 'Bumps and babies' to have less of an agenda as it's a lot more general. So women might be sitting breastfeeding which is lovely, but it's not an agenda, it's not direct, not specific, whereas to come to a breastfeeding group it is" (centre midwife).

"You know, I walked into 'Bumps and babies' recently, there were five women sat on the floor breastfeeding, I thought 'Oh my god! Fantastic!'" (centre midwife).

Parents moving beyond midwifery services within the centre

Women and their families soon became familiar with the centre and its staff through attending meetings with the centre midwives:

"A lot of first-time mums have not thought about the toddler groups, as you don't really before you need it. So when they come to 'Bumps and babies' they are meeting the early years' worker, so we can show how and when they get to go to the next group. We can talk about borrowing toys from the toy library or one of the play sessions like messy play and other activities" (centre staff).

The parents attending the centre recognised that it was not only their children who would benefit from engaging with the centre:

"It's not only for your children it's a place for us as well, to meet up with other people. You know it's good for the kids but it's also good for the parents as well, I think" (parent).

"I've lived here for two years and all my family live miles away so I have no one up here. My partner works so if it wasn't for this place I'd be, I wouldn't have anyone to talk to" (parent).

Parents were able to engage in courses on cooking, computers, self-esteem workshops and volunteer schemes, alongside special events, for example, Mother's/Father's Day. Here a parent reflects on how he became engaged with centre activities following the centre midwife visiting his wife:

"I was looking for work and she noted it down and a few hours later I had a phone call saying you would be hearing from career finder. So I came over to meet him yesterday and I will see him again next Monday. Now she is a midwife and she does not have to do that, you know it's not up to her to respond like that when someone says we are looking for work. They are all friendly, nice, nothing is too much trouble" (parent).

Social change takes time and commitment

The presence of the centre in a deprived area enabled individuals to make positive changes in their lives and develop pride in their community:

"I feel... more safe now this is here. I let my kids go in that park, more than I ever did. I wouldn't let my kids

go up there, I wouldn't, I hated it. There were always kids you know, older kids doing whatever they liked over here. They put the centre here, now they have done that I have no problem" (parent).

"Cos they know you personally as well, so when you come in if you haven't seen them for a couple of weeks, they know two weeks ago that you had this or that issue, so they remember that and it's almost like you can carry on from there even though there's been a space of time" (parent).

Stakeholders reflected on the need for appropriately skilled staff in professional and personal terms and concerns over sustainability linked to funding:

"If you've got your skilled workers engaging parents then you've got a better chance of breaking the cycle of disadvantage and improved future outcomes" (stakeholder).

"... all the knowledge experience and skills that they have including extra stuff they have done with children with disabilities, parents who have disabilities, child protection, drug using parents. That will all be lost and there will be nothing to show for it if they go (stakeholder).

This reaffirms that to address social inequality in a significant and sustainable way takes time, commitment from policy-makers, funders and those involved in facilitating the services:

"It has made a very significant change and the tendency now is well they are sorted now, let's move onto the next one. Things have happened, things are much better here now. The community is much more gelled, there are loads of things that have happened. But it's still very early days, you need 20 years to bed it down and then you might say well actually its instilled into the community now, then it becomes integrated" (stakeholder).

Discussion

The scope of the study was limited to one Sure Start Children's Centre. However, it does provide evidence of the experience of those using the centre and the midwives who provided the service. Further study, which explores several midwifery schemes in a range of children's centres would add to the body of knowledge in this area.

In Walsh and Newburn's (2002a, 2002b) analysis of social models of midwifery, they refer to the earlier work of Wagner (1994) and Bradshaw (1994) which makes a challenging argument for embracing a social model of care where women can experience the childbirth process rather than have it managed like a disease (Enkin, 2006; van Teijlingen, 2005). This approach to childbirth is exhibited by the work of the centre midwives where pregnancy and childbirth are seen as part of normal continuum of life. It is important to acknowledge that, for individuals who live with social deprivation every day and/or have a somewhat chaotic lifestyle, having a team of people who listen and attend to them with humanity and professionalism enables them to realise some sense of control and make choices for themselves to benefit their families.

This evaluation echoes findings from the National evaluation of Sure Start programmes (NESS) early re-

sults that reported positive benefits for individuals and their families who lived within the postcode serviced by some Sure Start centres (NESS, 2005b). In-depth information from 20 case studies was used to provide data (NESS, 2005a). NESS (2008) demonstrated that more women and their families were accessing health and social care through children's centres – this was also happening at the centre. Addressing public initiatives locally can successfully, over time, encompass the community; this, however, requires a sustained commitment to the service and its funding.

The study demonstrated that maternity services were meeting the needs of the local community with respect to the NSF (Department of Health, 2004) standards in that they provided accessible, effective maternity care for vulnerable or disadvantaged women and their families. In 2009, the government in England made children's centres a statutory requirement via the Apprenticeship, Skills, Children and Learning Bill (Department for Children, Schools and Families, 2009). When a new coalition government came to power in May 2010, they said that children's centres would be protected from any 'in year' spending cuts (HM Treasury, 2010).

The centre staff were mindful that they needed to generate more evidence related to their activities and interventions. At the time of the study, the centre midwives were providing both 'add on' midwifery in relation to the social and psychological needs of individual women with some antenatal and postnatal care. Support in labour and birth was being given by midwives at the local birth centre or obstetric unit. Since this time, the midwives and stakeholders from the centre and maternity units have reviewed this arrangement alongside funding changes. The midwives now have a collective caseload of 30 women per year for whom they provide antenatal and post-birth care up to one year following the birth – all these women have complex health and social care needs.

A key factor in the relationship between women and the centre midwives was the extra time devoted to the parents that helped relationships form and enabled the development of a good rapport between women and the midwives.

Recommendations

Statutory guidance outlines the Apprenticeships, Skills, Children and Learning Act 2009 provisions that relate to children's centres. The Act updated the Childcare Act 2006 so that Sure Start Children's Centres are now a legal requirement (Department for Children Schools and Families, 2010).

The significance of this study to children's centres will be a sustained commitment to the provision of care to local families within which maternity care is ideally located along with other health and social care. It also charges primary care Trusts and Jobcentre Plus to review regularly whether the early childhood services they provide should be administered through local children's centres (Department for Children, Schools and Families, 2010).

Children's centres continue to provide a range of

services to the local community. These help to enhance the physical and psychological wellbeing of local families. It is important that children's centres provide maternity services for the community as part of a package of health and social care.

The centre and others like it should continue to pro-

vide a non-judgemental, dynamic and equitable service based on local needs of women and their families. This service should be within the community and encompass not only midwifery, but a range of health care and other support services to enhance the opportunities for the local population.

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Effectiveness of individual clinical supervision for midwives and doctors in stress reduction: findings from a pilot study

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Abstract

Background. A recent study designed to examine the responses of maternity staff to loss experienced through their work, concluded that staff working in these areas can experience significant clinical levels of stress (Wallbank, 2007). Supporting staff to process and normalise their workplace experiences may help them better care for themselves and the women and families under their care.

Aim. To examine the effectiveness of clinical supervision in reducing staff stress. Supervision in this context was not designed to assess clinical competence, but a tool to assist staff with the emotional demands of their work.

Methods. In total, 157 participants were invited to participate in this pilot study, 30 agreed and were randomly assigned to a control or treatment group. Participants within the control group received no intervention. Participants randomly assigned to the treatment group received clinical supervision for an average of six sessions with a clinical psychologist. Participants completed measures to assess levels of subjective stress, burnout, compassion fatigue and compassion satisfaction.

Conclusion. Results for the treatment group showed significant differences in subjective stress, with average scores decreasing from 29 to 7 ($p<.0001$); compassion satisfaction average scores increased from 37 to 41 ($p=.001$); burnout average scores decreased from 27 to 14 ($p<.0001$); compassion fatigue average scores decreased from 16 to 12 ($p=0.004$). Systematic, individual clinical supervision appears to have a positive impact on the reduction of stress for staff working in obstetrics and gynaecology.

Key words: Staff stress, professional grief/loss, staff support, workforce development, supervision, evidence-based midwifery

Background

Employment in obstetrics and gynaecology settings does not appear to be construed as highly emotive work (RCOG, 2006; NHS Careers, 2006; RCN, 2004). While professional bodies provide information relating to the varying roles professionals can expect to occupy and experience, the potential impact of working with death and patients who are dying is not mentioned. Yet, there is a cadre of research explicitly noting the emotional impact of work in these settings, contradicting the neutral impression given by professional organisations (McCreight, 2005; Mander, 2006; Nallen, 2006). This lack of overt recognition of emotionally-laden work inherent in such contexts may be useful for staff, since denial of more negative parts of employment may protect staff from adverse emotional engagement (Cohn, 2006). Given that the 'primary task' (Roberts, 1994) of these settings focuses on facilitating the emergence of new life, then tasks that appear to interfere with this objective may be too difficult to be given any meaningful thought (Raphael-Leff, 2005). The general assumption that maternity settings are positive environments where happy

events occur (Papadatou et al, 2002) may also provide an incongruent environment for staff to acknowledge the reality of their work.

Previous research with obstetrics and gynaecology staff (Wallbank and Robertson, 2008) have identified that staff can suffer a range of psychological and emotional responses in caring for families experiencing loss. These responses include crying, sadness, intense sorrow, anger, frustration, nightmares, recurring thoughts, and guilt among others. Psychosomatic responses have also been noted. Staff, in particular those caring for people suffering from a serious illness, or where staff are exposed to multiple deaths are considered to be at risk from developing work-related psychological disorders (Regehr and Bober, 2005). It could be argued that where staff are not supported and encouraged in processing their responses to the work, they may be more vulnerable to developing psychological difficulties (Regehr and Bober, 2005). The emotional and psychological demands placed on staff have been recognised in settings, such as oncology or paediatrics and this appears to allow staff to find helpful ways to express their response to the work (Medland et al, 2003; Mander, 2006).

The importance of the staff member remaining congruent and emotionally interacting with the family has been identified as important, in order to facilitate the beginning of a healthy grieving or adjustment process for the family (Kohner, 2007). However, emotional interaction is a two-way process and the impact for the staff member at this time does not appear to be recognised (Wallbank and Robertson, 2008).

Research has attempted to define the lowered effect or sadness staff experience while caring for families experiencing losses of this nature in a number of ways. These reactions have struggled to be defined within a coherent framework, with researchers offering theoretical explanations that have included grief, stress, emotion work, anxiety, trauma, burnout and compassion fatigue (Wallbank and Robertson, 2008).

The multitude of descriptors is problematic and may be linked to determinist assumptions that processes, such as grief are valid occurrences, before comprehensive explanatory research has been conducted, or where researchers make inferences regarding internal states based on an observed or described affective state. Current research tends to be methodologically flawed using qualitative, phenomenological approaches, with small groups of mainly female staff and undertaken by researchers already known to or working with their respondents (Wallbank and Robertson, 2008). The majority of research has been undertaken outside the UK within care systems that differ substantially to the NHS framework of care, and this raises questions regarding generalisability of the evidence given potential differences in culture and practice. Existing research has not attempted to investigate what is known about the reactions of staff using a robust theoretical framework.

Evidence of work events as a stressor

The myriad responses that staff can experience demonstrates that individual distress can manifest itself in a number of ways. The complexity of professional practice may also contribute to staff's differential experience of some episodes of care, as well as variation due to personal training. However, evidence from other clinical areas within the hospital environment suggests that experience of death and particularly that of a child are among the most common perceived stressors (Regehr and Bober, 2005). This is also confirmed by evidence outside the hospital setting, with similar distress reported by fire fighters, police and paramedics (Regehr and Bober, 2005). The body of literature refers to the importance of cognitive appraisals in contributing to the emergency workers' perception of the event. Negative appraisals about the experience, for example, where staff identified with parental grief or felt guilty, as they were unable to save the child, were significantly associated with the exacerbation of staff stress.

Evidence from both within and external to the clinical setting also refers to the importance of the work environment, particularly supervisory support in mediating

the impact of the loss on the staff member (Regehr and Bober, 2005). This literature also points to the particular vulnerability of the inexperienced member of staff suggesting that experience is somehow protective.

The consequences for staff working within these settings appears to be the lack of recognition that staff may need to develop an understanding of the psychological impact of their work. This is in comparison to other settings, such as oncology or paediatrics, where the emotiveness of the work is somewhat accepted, although not always supported (Medland et al, 2003; Mander, 2006). This lack of acceptance would appear to make it difficult for staff to recognise or process their own emotional response.

Pregnancy loss as a stressor

Stress is defined as: 'A process which occurs when individuals find themselves unable to deal adequately with the demands placed upon them' (Payne, 1999: 8). A 'stressor' is defined as the reason that the process of stress had occurred. Given what is known about the reactions of other staff groups dealing with death and dying, it seems reasonable to assert that the caring of families experiencing loss could be stressful for staff working in obstetrics and gynaecology.

A quantitative study (Wallbank, 2007) designed to examine the responses of maternity and gynaecology staff to miscarriage, neonatal death and stillbirth experienced though their work concluded that staff working in obstetrics and gynaecology caring for families experiencing loss, can experience significant and clinical levels of subjective stress. The study also found that supervisors are likely to be experiencing similar levels of stress and are therefore unable to assist staff in developing more helpful coping strategies or recognising their distress.

Where the emotionality of the work is not recognised and staff continue to experience such levels of subjective stress without support, they can be exposed to the recognised effects of long-term stress. This can manifest as distorted thinking, emotional distress and maladaptive patterns of behaviour. Staff may avoid emotional involvement in future situations as they find it difficult to cope with the negative emotions of families. Sickness rates can increase, morale is often lower as staff cease to gain support from collegial interactions, productivity decreases, time-keeping reduces, decision-making becomes impaired, and the number of conflicts and accidents can increase as staff are less able to attend to demanding situations. Ultimately patient dissatisfaction can increase as staff are unable to offer the standard of care they may wish for (Firth-Cozens and Payne, 1999).

Previous studies have consistently recognised that staff need to be provided with support to allow them to understand the psychological impact of the work they do, however, the efficacy of such recommendations has yet to be evidence based (Wallbank and Robertson, 2008). The recent Department of Health *NHS Constitution* recognises the need for a commitment to staff wellbeing

Table 1. Participants' scores pre- and post-treatment

| | Treatment group | | Non-treatment group | |
|--|-----------------|-----------------|---------------------|-----------|
| | Baseline | After treatment | Baseline | Trial end |
| Total stress Impact of events composite score | | | | |
| Mean | 29.18 | 7.10 | 28.91 | 29.72 |
| SD | 10.85 | 4.47 | 9.67 | 9.12 |
| P | | <.0001 | | .781 |
| Compassion fatigue | | | | |
| Mean | 16.27 | 12.33 | 16.49 | 16.96 |
| SD | 4.08 | 6.10 | 3.69 | 4.92 |
| P | | .004 | | .846 |
| Compassion satisfaction | | | | |
| Mean | 37.20 | 41.33 | 37.36 | 36.49 |
| SD | 6.06 | 2.22 | 6.92 | 6.27 |
| P | | .001 | | .483 |
| Burnout | | | | |
| Mean | 26.73 | 14.00 | 23.91 | 26.67 |
| SD | 7.34 | 4.71 | 6.91 | 7.26 |
| P | | <.0001 | | .561 |

with its pledge to: 'provide support and opportunities for staff to maintain their health, wellbeing and safety' (Department of Health, 2009: 10).

Clinical supervision is considered to be a formal process of professional support, central to the role of learning. The process supports individual practitioners to develop knowledge and competence, assuming responsibility for their own practice, enhancing consumer protection and safety in complex situations. It also promotes self assessment, analytical and reflexive skill building (Department of Health, 1993; Faugier and Butterworth, 1994). There are a number of different models or methods of conducting clinical supervision, including group, multidisciplinary, network and individual supervision. The statutory supervision provided by supervisors of midwives may form part of a supportive network for midwives. Approaches that can be adopted include formative, normative and restorative functions (Proctor, 1987). Where formative is an educational process, normative is a managerial process interested in quality checking and ensuring adherence to standards. Restorative function looks after the emotional and psychological needs of staff, particularly in difficult and stressful situations.

Having identified that the staff group can find dealing with loss of life stressful (Wallbank, 2007), a restorative approach would seem to be the most useful. The model

of clinical supervision incorporates the principles of the Solihull approach model (Douglas, 2006). This approach uses 'containment' that describes the method of processing anxiety and emotions so that the ability to 'think' is restored in the person. 'Reciprocity' focuses the professional's attention on the quality of relationships both between themselves and the families they care for and between individual members of the family.

Aim

The study aimed to offer individual, systematic clinical supervision to randomly selected midwives and doctors and compare their levels of burnout (associated with feelings of hopelessness and difficulties in dealing with work), compassion satisfaction (the pleasure derived from being able to do your work well), compassion fatigue (related to secondary exposure to stressful events) and subjective stress, with doctors and midwives working within the same hospital who were not receiving clinical supervision.

This study is designed to determine how effective this type of clinical supervision could be on reducing the impact of loss of life on staff.

Overview of study

The research is founded on previous evidence that the experience of caring for a family experiencing pregnancy loss was stressful. As a 'stressor', caring of this nature elicits negative emotions (fear, anxiety, sadness) in the staff member and these emotions need to be dealt with.

Design

In total, 157 staff consisting of 120 midwives and 37 doctors were asked to participate. They worked in one UK hospital and were representative of all staff in obstetrics and gynaecology with regards to age, gender, ethnicity and experience.

Upon approval of the project by the central office of research ethics and the participating Trust, an information sheet and consent form was sent to a random sample of midwives and doctors working within the hospital. The information letter outlined the project and assured participants that participation was voluntary and confidential. The consent form asked staff to consider participating in the study and ensured that they understood allocation to the clinical supervision group was randomised. Staff who were allocated to the control group were asked to complete two questionnaires; staff who were allocated to the treatment group were asked to complete the same questionnaires, however, they also received six sessions of supervision. Staff received individual clinical supervision from a clinical psychologist for six sessions of one hour.

Three standardised measures were analysed from the questionnaire pack.

Table 2. Research studies involving staff groups and impact of event scale (IES)

| Researcher | Population | Intrusion score (SD) | Avoidance score (SD) | Total stress score (SD) Total IES |
|------------------------|---|----------------------|----------------------|--------------------------------------|
| Horowitz et al (1979) | Medical students – first cadaver dissection | 4.3 (4.15) | 6.35 (6.15) | 9.8 (8.8) |
| McCarroll et al (1993) | Emergency personnel – stress relating to handling human remains | 7.2 (6.4) | 10.65 (8.25) | 17.85 (14.65) |
| Wallbank (2007) | Obstetric and gynaecology staff | 12.06 (8.31) | 10.20 (7.61) | 22.26 (14.12) |
| This study | Obstetric staff – post-treatment data | 5 (2.93) | 2 (1.69) | 7 (4.47) |

Impact of event scale

The impact of event scale (IES) (Horowitz et al, 1979) has 15 items, seven of which measure intrusive symptoms (thoughts, nightmares, feelings and imagery) and eight that tap avoidance symptoms (numbing of responsiveness, avoidance of feelings, situations and ideas), and combined provide a total subjective stress score. All items on the IES are linked to a specific stressor and respondents are asked to rate each item on a scale of 0 (not at all), 1 (a little bit), 2 (moderately), 3 (quite a bit) and 4 (extremely) according to how they felt at the time. The measure can be also used to identify levels of clinical concern with Horowitz (1982) proposing low, medium and high symptom levels based on the IES total score.

Professional quality of life scale

Professional quality of life scale (ProQol) (Stamm, 2008) is composed of three discrete scales that measure:

- Compassion satisfaction – the pleasure one derives from being an effective caregiver
- Burnout – feelings of hopelessness, difficulties in dealing with work or carrying out the work effectively
- Compassion fatigue – psychopathological symptoms associated with secondary exposure to stressful events.

The ProQol is a psychometrically sound tool that has been used in numerous studies on the impact of stressful care-giving on staff (Stamm, 2008). Items within ProQol are scored by asking the participant to reflect on the past 30 days and note to what extent they agree with the statements presented on a 0 to 5 scale. A score is availa-

ble for each of the scales, the measure does not provide a composite score.

Positive and negative affect schedule

The positive and negative affect schedule (PANAS) (Watson et al, 1988) scale consists of a number of words that describe different feelings and emotions. Participants are asked to rate the emotions they recalled experiencing as a result of caring for the same stressful loss.

Statistical analyses

Statistical analysis data were analysed using the Statistics for Social Sciences (SPSS) version 14.0. Descriptive statistics were computed from the data used in the analyses, which are reported as mean ± SD. Data were split into cases based upon the level of clinical concern scored using the IES measure and comparisons made with data from other studies. Paired *t*-tests were carried out to determine the statistical significance of pre- and post-treatment data.

Results

In total, 30 staff from the invited 157 agreed to participate in the study.

Power calculation

A retrospective power calculation was carried out. Using the IES as a primary measure, the study showed a large effect size ($f^2=0.78$), with a probability of $p<.001$, based on the 30 participants, power was equivalent to 0.93, which showed that the study achieved statistical power (see Table 1).

Score results

Within the treatment group, there was a significant difference in the amount of subjective stress scores for staff showing a significant difference ($p<0.0001$), with average scores decreasing from 29 to 7, which was a reduction to within non-clinical levels for all participants (see Table 2 and 3).

The mean scores for all participants on the ProQol and IES questionnaire showed a significant level of compassion fatigue, burnout, intrusion, avoidance and total stress in comparison to other studies using this measure prior to treatment. Compassion satisfaction scored at an average level compared to other health workers.

Within the treatment group following clinical supervision sessions, there was a significant difference in the amount of compassion satisfaction scores, average scores increased from 37 to 41 ($p=.001$); burnout average scores decreased from 27 to 14 ($p<0.0001$); compassion fatigue/secondary trauma average scores decreased from 16 to 12 ($p=.004$).

Table 3. Research studies involving staff groups and professional quality of life score

| Researcher | Population | Compassion satisfaction score (SD) | Burnout score (SD) | Compassion fatigue score (SD) |
|-------------------------|-------------------------------------|------------------------------------|--------------------|-------------------------------|
| Larsen et al (2002) | General health workers | 35.80 (8.45) | 19.80 (6.06) | 11.37 (6.35) |
| Figley and Stamm (1996) | Child family workers | 36.81 (6.92) | 23.34 (6.77) | 13.40 (6.27) |
| Stamm (2008) | School personnel | 41.15 (5.55) | 35.80 (8.45) | 14.17 (5.94) |
| This study | Obstetric staff Post-treatment data | 41.33 (2.22) | 14 (4.71) | 12.33 (6.1) |

Post-study results showed no statistically significant difference in the scores of the control group compared with their earlier scores apart from compassion fatigue, which slightly increased, but was strongly not significant $p=0.846$.

Discussion

This study replicates previous findings concerning the impact of working with death and dying on staff (Horowitz et al, 1979; McCarroll et al, 1993; Alexander and Klein, 2001), in that staff can find this work stressful. Staff working in obstetrics and gynaecology have been shown to experience a range of psychopathology, including levels of burnout, compassion fatigue and subjective stress (Wallbank and Robertson, 2008; Wallbank, 2007). This study found similar findings.

Feeling distressed or overwhelmed as a result of being faced with work events could be seen as a normal part of this work. However, previous studies have shown that staff who experience such feelings go on to suffer significantly higher levels of subjective stress (Firth-Cozens and Payne, 1999; Wallbank, 2007).

Burnout, compassion fatigue and a decrease in compassion satisfaction are not phenomena unique to this setting. Previous studies have found similarly disturbing levels within other healthcare staff, school support staff and local authority workers (Larsen et al, 2002; Figley and Stamm, 1996; Stamm, 2008).

Clinical supervision appeared to provide an opportunity for staff to process these experiences and reduced their scores for burnout, compassion fatigue and subjective stress, which would allow the staff member to be more effective in the workplace (Firth-Cozens and Payne, 1999). The process also improved compassion

satisfaction that could impact positively on patient care (Stamm, 2008).

Anecdotally, there were similar themes experienced by all the participants that included an internal perception that they were required to cope, not being able to express themselves to senior members of staff and a sense of responsibility not to burden colleagues with their experiences. It is important to note that staff spent time within the sessions discussing workplace experiences and the impact that these were having on their ability to think and make decisions.

Anecdotally, staff reported clinical supervision assisted them in improving their own

capacity to reflect and cope with their workplace experiences. This is in line with other findings from the Solihull Approach Team (Whitehead and Douglas, 2005). Staff not receiving supervision scored similar amounts post-study, providing early evidence of the effectiveness of clinical supervision for this staff group. Although clinical supervision has been recognised as a useful tool to improve a staff member's ability to reflect on their experiences (Department of Health, 1993), there is a dearth of evidence relating to its efficacy.

As a pilot to determine the usefulness of individual supervision, this study has provided good evidence for the efficacy of clinical supervision. However, a wider study that engages higher numbers of participants would be needed to establish further evidence.

Both the 2007 study and this more recent research has established worrying levels of stress within staff working in obstetrics and gynaecology. Staff are more likely to withdraw emotionally as is evidenced by current research around parents' experiences (Cowan and Wainright, 2001). Long-term impact of stress is sickness, low morale, decreased productivity, poor time-keeping, impaired decision-making, increased conflicts, increased accidents, patient dissatisfaction that means a rise in complaints.

There has been substantial literature written within the last ten years as to the difficult conditions staff are faced with: '*Exhausted staff, lack of leadership and increasingly complex case mix jeopardise patient safety*' (Kings Fund, 2008: 1).

Despite occupational health services being available to staff working within these settings, these are often avoided because of the negative consequences staff fear may occur. Offering the opportunity for all staff to have access to clinical supervision would appear a low cost and practical alternative to the negative effects of staff who

are experiencing difficulties. Normalising the demands and subsequent effects that staff appear to experience will only serve to aid recognition of staff stress, improve staff wellbeing and ultimately the patient journey.

It is important to recognise that the size of the sample within the study precludes wide scale generalisations about the efficacy of clinical supervision at this stage. The author is involved in a further study offering clinical supervision to health professionals working within a community setting. The study has been incorporated

into a health leadership programme and normalises the concept that staff working with complex case loads may need additional support. This study is looking at a cascade model of training, offering direct supervision to senior managers who are then trained and supported to deliver the supervision to their teams. Given the cost implications of direct input from a clinical psychologist into obstetric and gynaecology settings, a sustainable model of supervision would be more favourable in the current climate.

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Information for authors

Evidence Based Midwifery is published quarterly and aims to promote the dissemination, implementation and evaluation of midwifery evidence at local, national and international levels. Papers on qualitative research, quantitative research, philosophical research, action research, systematic reviews and meta-analyses of qualitative or quantitative data are welcome. Papers of no longer than 5000 words in length, including references, should be sent to: maura@redactive.co.uk in MS Word, and receipt will be acknowledged. Suitable papers are subject to double-blinded peer review of academic rigour, quality and relevance. Subject area and/or methodology experts provide structured critical reviews that are forwarded to authors with editorial comments. Expert opinion on matters such as statistical accuracy, professional relevance or legal ramifications may also be sought. Major changes are agreed with authors, but editors reserve the right to make modifications in accordance with house style and demands for space and layout. Authors should refer to further guidance (RCM, 2007; Sinclair and Ratnaik, 2007). Authorship must be attributed fully and fairly, along with funding sources, commercial affiliations and due acknowledgements. Papers that are not original or that have been submitted elsewhere cannot be considered. Authors transfer copyright of their paper to the RCM, effective on acceptance for publication and covering exclusive and unlimited rights to reproduce and distribute it in any form. Papers should be preceded by a structured abstract and key words. Figures and tables must be cited in the text, and authors must obtain approval for and credit reproduction or modification of others' material. Artwork on paper is submitted at the owner's risk and the publisher accepts no liability for loss or damage while in possession of the material. All work referred to in the manuscript should be fully cited using the Harvard system of referencing. All sources must be published or publicly accessible.

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News and resources

Themed issue on ethical issues

Evidence Based Midwifery (EBM) is planning a themed issue on ethical issues and dilemmas facing the midwife in their role as researcher.

The special edition will explore the ethical issues faced by clinical researchers. This includes planning proposals; selecting methodology; conducting research; and disseminating research outcomes.

Papers of no more than 3500 words should be submitted to deputy editor Maura O'Malley at: maura@redactive.co.uk by 24 September. The editorial team would be happy to discuss further details with any prospective authors.

Leadership and travel scholarships

Leadership scholarships, worth around £15,000, are being offered to midwives and nurses by the Florence Nightingale Foundation.

The scholarships are aimed at midwives and heads of midwifery who wish to become leaders. The scholarships aim to equip them with the skills and self-confidence to achieve this. The applicant's organisation must agree to grant study leave and be prepared to contribute 10% to the awarded funds. The closing date for applications is 27 September.

The foundation is also offering travel scholarships for those midwives and nurses who wish to visit centres of excellence in the UK and overseas to improve patient care and ensure their practice is up to date. The closing date for this scholarship is 20 August.

Further details can be found at: www.florence-nightingale-foundation.org.uk

Partnership between RCM and DMRS

The RCM has agreed a formal partnership with the Doctoral Midwifery Research Society. EBM's editor Professor Marlene Sinclair welcomed the new partnership as 'strong evidence of commitment from the RCM to implement its new research strategy and take midwifery research into the 21st century'. The RCM is also delighted to support the DMRS's first international conference, which is being held between 1 and 3 September in the University of Ulster, Northern Ireland. For further details, go to: www.doctoralmidwiferysociety.org

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