



NEW ZEALAND
COLLEGE OF
MIDWIVES (INC)

JOURNAL

Creating and critiquing knowledge

Do low risk women actually birth in their planned places of birth, and does ethnicity influence women's choice of birthplace?

Quantity or quality of postnatal length of stay? Literature review examining the issues and the evidence.

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Creating and critiquing knowledge

Joan Skinner

I have had some great sessions over the last couple of months with my postgraduate midwifery students planning their research projects and we have been pondering knowledge, where it has come from, how it is generated, how we use it and, of course, as we are midwives, what knowledge is valued and whose knowledge is seen to be authoritative. It is so important that we as midwives develop a sophisticated and canny sense of knowing and of research. So what is valid knowledge and who decides what is valid?

There are some fascinating recent happenings related to knowledge that highlight this issue perfectly. The first is Professor Sir Peter Gluckman's research findings into the impact of poor maternal diet on the long term health of babies. I do not want to dismiss these findings and it is of course great that we have some support for what we have known – that a healthy diet is important not only for babies but also for their mothers. However with my ever present 'risk' lens I fear that this information will generate even more anxiety into the hearts of new mothers as they try to do the best for their babies. Eating becomes even more laden with fear and guilt.

Such knowledge is never produced in a vacuum and we as practitioners are often left to manage the interface between what is developed in a research framework and the choices and perspectives of the women and families for whom we care. This is an important part of our work as we 'broker' knowledge. We need to attend to the quality and the position of the research itself, the position of the consumer and of course to our own responses to the research – all quite a complex process. Research is very definitely not primarily for the researchers. It is the health professional who must look at research and interpret it for and with the client – the essence of evidence informed practice. Interpreting research is often complex and we need to attend to bias present in any piece of research and of course to attend to our own lens in interpreting it. We also need to take care when assessing whether or not a piece of research is applicable in our own setting or whether we can generalise from it.

The second happening of interest is the recent publication of two large pieces of research. The first is the Wax et al. (2010) study which indicate that babies may be more likely to die if born out of hospital and the Evers et al. (2010) study which had similar findings. Both these studies have been published in reputable international journals yet have been widely critiqued. We ourselves published a critique of the Wax et al.

study in the previous edition of the Journal and we publish a critique of the Evers et al. study by Gilkison, Crowther and Hunter in this edition. So in this Journal we not only publish original research but do try and assist you to understand its validity and usability; its relevance to your practice and to the way you support informed consent is crucial. Cuncarr and Skinner take another way of critiquing research. In this edition they have taken an issue of current policy concern, that of longer length of postnatal stay and examine quality and quantity of evidence that is available to either support or challenge this policy initiative.

Another issue which is of concern is how we might openly analyse our practice and in a sense expose it so that we may improve the quality of the care we provide. As health practitioners it is our duty to make sure that we are providing high quality care. We need to highlight both our strengths and also ensure that we are on the right track. So we seek knowledge of this and share what we have found. We have two good examples of this in this edition. The large study by Hunter et al. looking at where New Zealand women choose to give birth and to what extent they achieve this, adds significantly to how we might plan maternity services. The Cox and Smythe study provides knowledge of a different sort and may require some assistance in terms of how we interpret it. This is a small qualitative piece, exploring the experience of three midwives as they decide to leave LMC practice. What they found, from in depth analysis of their stories, was that these midwives practiced relational based, women-centred care which was very satisfying but that the intensity of such a way of working exposed them to emotional harm when things became tough; when there was poor outcome or when colleagues or clients did not support them. My reading of this research, alongside the growing body of knowledge we are accumulating in this area, brings to our attention the possibility of a dark side of the relational based care we call partnership – the potential for emotional exhaustion. This does not mean that the model itself should be abandoned, especially given the size of the studies on this topic, but that we might consider what others who work in relational based professions such as social workers or psychiatric nurses undertake to protect themselves and to enhance their care: periods of skilled, professional support.

But there does need to be caution in interpreting such research. Three midwives are not representative and there is no attempt to say that this is so. Such qualitative studies are not telling us that this is how it is for us all. The knowledge that we gain from such qualitative research is neither generalisable nor objective (Denzin and

Lincoln, 2005), but yet can at the same time provide powerful insights, not available to us in quantitative research (Maynes, Pierce, & Laslett, 2008). As such, qualitative research gives us a different way of knowing which is 'incomplete, open-ended and contingent' (Denzin and Gardina, 2008, p127). So rather than whether or not this is generalisable (do all midwives feel like this?) we consider recognisability and trustworthiness (does this give me new insight as to how this experience might be?). In a sense such research is storytelling with a methodical systematic unveiling of what the researcher sees through their lens. So as we acknowledge the power of the story we, at the same time, position it as such.

The other recent happenings that impact on knowledge and how we use it is yet more critique in the media of midwifery as an autonomous and valid profession. In light of this, the publication of the Cox and Smythe research and the exposure of some of our "tough stuff" might be seen to be rash. However even in the light of this relentless and biased critique of midwifery care produced by both lawyers and the media I remain a firm believer that a profession that might become driven more by fear of critique and exposure than by open reflection and self analysis is destined to fail in its vision and in its commitment to better care for both key members of the partnership – women AND midwives. We need to remember that we are offering a model of care that runs counter to current ways of viewing the world and that we can support each other to stay true to this when others do not understand it. The key is to claim the validity of different ways of knowing, to be critical and creative users and generators of knowledge. I hope that this, and future editions of the Journal continue to grow our ability to do this.

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Do low risk women actually birth in their planned place of birth and does ethnicity influence women's choices of birthplace?

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ABSTRACT

Purpose: Midwives practising as lead maternity caregivers in New Zealand (NZ) provide continuity of care to women who choose to give birth in a variety of settings including home,

primary maternity units, secondary and tertiary level hospitals. The purpose of this study was to compare how frequently the planned place of birth matched the actual place of birth for a cohort of low risk women in the care of midwives and to identify whether ethnicity influences women's choices in relation to planned place of birth.

Method: The Midwifery and Maternity Provider Organisation (MMPO) database was accessed with agreement from the NZ College of Midwives (NZCOM). Ethical approval was gained from the NZ Multi-region Ethics Committee. Data were obtained from the MMPO database from 2006-2007 for a total of 39,667 births. Data were reduced through exclusion criteria to establish the cohort of 16,453 low risk women (41.47% of total sample) according to planned birthplace. The Stata statistical package was used to analyse data for this cohort of low risk women.

Results: Within the total cohort (n=16,453), 9.36% of women had a homebirth, 16.25% of women birthed in a primary maternity unit and 74.36% of women birthed in a secondary/tertiary hospital. Five women (0.03%) birthed in an atypical small maternity unit with access to epidural analgesia. This facility was categorised as a 'primary plus' facility and is different from primary units and secondary/tertiary hospitals. Of the women planning a homebirth, 82.68% (n = 1,513) gave birth at home. Just over ninety percent (n= 2,594) of women planning to birth in a primary maternity unit gave birth in this setting and over 99% of women planning birth in secondary/tertiary hospitals (n = 12,066) gave birth there. Only 3.95% of multiparous women did not give birth in their planned birthplace as compared with 6.02% of primiparous women. This result was statistically significant (p<0.001). The cohort of low risk women was analysed by ethnicity and by the percentage of each ethnicity that planned to birth at home, primary, and secondary/tertiary settings. Twenty three percent of Māori women chose to birth in a primary maternity unit compared with 18% of NZ European, 14% Pacifica and 10% of Asian women. Thirteen percent of NZ European women planned homebirth compared with 9% of Māori, 7% Pacifica and 4% of Asian

women. There was no statistically significant difference between ethnic groups and their planned and actual birthplace.

Conclusion: There is a high association between intended and actual birthplace in relation to homebirth and primary maternity units; parous women were significantly more likely to give birth in their planned birthplace. While only a quarter of this low risk cohort chose to give birth in the low technology settings of home or a primary maternity unit, this study shows that women who planned to birth in such settings, generally did so. Māori women were the ethnic group most likely to choose a primary maternity unit as their planned birthplace. It is important that low risk women continue to be able to choose their place of birth and that primary maternity units are available to them. This may be particularly important for indigenous NZ women.

KEY WORDS:

Actual and planned place of birth; birthplace and ethnicity; homebirth; primary maternity unit (birth centre); secondary/tertiary hospital; Lead Maternity Carer.

INTRODUCTION

NZ's publicly funded maternity service allows women to choose primary maternity care from a midwife, a general practitioner (GP) or an obstetrician working as a Lead Maternity Carer (LMC). A LMC is contractually obliged to provide continuity of care to a woman and her baby, take responsibility for assessing needs, plan care with each woman and facilitate provision of appropriate additional care for those women and babies who need it (Ministry of Health, 2007). Primary maternity care is expected to be safe, informed by evidence, and based on partnership, information and choice (ibid).

One of the many decisions women have to make about their maternity care is where to give birth. Low risk women can choose between home, primary maternity units (birth centres), secondary maternity facilities or tertiary hospitals. All options, including homebirth, are funded by the government. Some women have reduced options because the area in which they

live is not close enough to a primary maternity unit or indeed to a secondary facility. NZ has some 58 primary maternity units but these are not distributed evenly across all District Health Board regions of the country; 51 are located in rural or remote rural settings (Hendry, 2009, personal correspondence April 2011).

The place of birth impacts on birth outcomes for low risk women with those birthing in higher technology facilities having an increased risk of unnecessary intervention than those who birth in the low technology settings of home or primary maternity units (Davis et al, 2011). The reasons why women choose particular settings for birth are complex and there is limited research on this topic. However, there is extensive literature that supports the importance of choice and control in birth for women and that shows that women are more satisfied with births in low-technology settings (Sandall, Hatem, Devane, Soltani & Gates, 2009).

This paper describes a study undertaken to compare how frequently the planned place of birth matched the actual place of birth for a cohort of low risk women in the care of midwives and to identify whether ethnicity influences women's choices in relation to planned place of birth.

The paper begins with a brief description of NZ's maternity service and its development, with particular emphasis on midwifery autonomy, the development of primary maternity units, the establishment of the Lead Maternity Carer model and the centrality of informed choice and decision making in NZ's health services, including maternity. The literature about the place of birth in relation to outcomes for mothers and babies and women's satisfaction is explored. Finally, the methodology of the study is described, the findings are analysed and implications discussed in relation to the provision of options for place of birth.

HISTORIAL OVERVIEW

NZ's current maternity services are unique in that they have been purposely designed to place each woman and her family at the centre of services. The Section 88 Primary Maternity Services document sets out the contractual obligations of LMCs to provide maternity care that is planned with each woman to meet her needs and is delivered in a continuity of care model (Ministry of Health, 2007). LMCs are required to offer women choices and to facilitate shared decision-making by providing evidence-based information (ibid). The LMC is required to coordinate the woman's maternity care, provide primary care and ensure that each woman has access to additional care through secondary or tertiary maternity services if required.

Primary maternity services cover all services where the woman's pregnancy continuum

remains normal. Primary maternity facilities are those without obstetric services. Secondary care is additional care required from 20 weeks to six weeks postpartum for women and babies who develop complications and who have a clinical need for referral to the secondary maternity service for obstetric consultation or transfer of care (Ministry of Health, 2006). Secondary maternity facilities have onsite obstetric and anaesthetic services including provision of caesarean sections. Tertiary maternity services are facilities that provide a multidisciplinary specialist team for women and babies with complex and/or rare maternity needs who require access to such a team, including neonatal intensive care units (NZ Health Information Service, 2008).

While some obstetricians and GPs undertake the LMC role most do not. In 2010 some 85% of women in NZ chose a midwife as their LMC (Guilliland & Pairman, 2010a). LMC midwives work in the community and provide antepartum, intrapartum and postpartum care to a caseload of women from early pregnancy through to six weeks postpartum. If the woman needs additional care then the midwife will work collaboratively with the appropriate medical or obstetric specialist services. The NZCOM, the professional organisation for midwives, sets standards and guides midwifery practice from a philosophy of partnership between each woman and each midwife (NZCOM, 2008). The College recommends a full-time LMC caseload of 40-50 women per annum in order for optimum midwifery care to be maintained (NZCOM, 2008). Caseload numbers might vary between midwives with clients in remote rural, rural and urban areas because of distances travelled to complete postnatal home-visit requirements, and according to commitments in the midwife's family and social situation (Foureur, Brodie & Homer, 2009; Patterson, 2007; Wakelin & Skinner, 2007).

The LMC model of primary maternity care is relatively new, being first implemented in 1996 and developed further since then. Prior to 1996 NZ's maternity services resembled those in many other developed countries, reflecting the historic influence of the British health system. In 1920 approximately 65 per cent of births took place outside hospitals (a hospital being an institution having two or more beds). Doctors were only involved if care became complicated (Mein Smith, 1986). Many women birthed in small maternity units but by the 1960s only 25% of women gave birth in these primary units and over the next two decades all the private units closed along with 33 public units, 29 of which were in rural areas (Skinner & Lennox, 2006; Rosenblatt, 1984).

An agenda of centralisation and safety through obstetric care drove the move to hospital as the main place of birth and the centralisation of maternity services in urban

centres (Skinner & Lennox, 2006). This was despite international and NZ evidence that birth in primary units was safe (Tew, 1985; Rosenblatt, 1984). In turn the increased doctor control over childbirth impacted on midwives and in 1971 midwifery autonomy was formally removed through legislation that required doctors to take responsibility for the care of women during childbirth (Donley, 1986). With doctors in charge and midwives working with less autonomy many midwives lost skills, knowledge and confidence in normal childbirth (Pairman, 2005; Stojanovic, 2008). Donley (1986) maintained that midwives working in smaller maternity units retained some independence and ability to promote normality despite the fact that their 'patients' were under the supervision of doctors. But even these smaller units came under threat. Centralisation of maternity services led to increased fragmentation of maternity care for women. While GPs provided early antenatal care, up until 1990 approximately only 20% of women had full maternity care provided by a GP (McKendry & Curtin, 1992). Instead the majority of women were channelled through crowded hospital antenatal clinics where women's care under the obstetric team was delegated to trainee doctors with midwives providing support (Guilliland, Tracy & Thorogood, 2010). Antenatal visits were short, routine, impersonal and lacked opportunity for discussion, information sharing or informed decision making.

Most women gave birth in hospital and although doctors were legally responsible for childbirth during the 1980s "66% of women had births conducted by midwives alone, regardless of whether the woman was under the care of a GP or the hospital obstetric team" (Guilliland & Pairman, 2010a, p.19). Hospital midwives were the main providers of labour and birth care (Brander, 1992) but they had no opportunity to get to know the woman beforehand through the provision of antenatal care and their care was largely dictated by hospital protocols and routines. By the 1980s women were increasingly voicing their discontent with a maternity service they perceived as disempowering and impersonal. By 1986 midwife leaders had recognised the power of combining with consumer groups to lobby for legislative change to restore midwifery autonomy (Guilliland & Pairman 2010a). A concerted political strategy carried out collaboratively by maternity consumer groups and midwives over the next four years was successful in bringing about legislative change that reinstated midwifery autonomy through the Nurses Amendment Act 1990.

Under this Act a medical practitioner and/or a registered midwife was responsible for the care of women during childbirth (Department of Health, 1990) restoring the autonomous role of the midwife. The Act was intended to increase

choices available to women and their families (ibid). In order to enable midwifery autonomy to become a reality, amendments to five other acts and six sets of regulations had to be made. These amendments enabled midwives to order laboratory tests, prescribe drugs in relation to maternity care and to claim for services provided from the Maternity Benefit Schedule (Pairman, 1998).

The reinstatement of midwifery autonomy was a significant factor in the redevelopment of NZ's maternity services from 1993 to 1996. Two other events also influenced this change. The first was the 1988 report of the Cervical Cancer Inquiry that amongst other things recommended the establishment of a health commissioner and the development of a statement of patient's rights (Committee of Inquiry, 1988). The second was the establishment of the NZ College of Midwives in 1989 as the professional organisation for midwives and its identification that the relationship between midwives and women is one of partnership.

The Health and Disability Commissioner Act was passed in 1994 and the Commissioner developed the Code of Health and Disability Services Consumer Rights that became law in

then a new and alternative form of practice (Guilliland & Pairman, 1995, 2010b). The midwifery partnership enhances the process of informed decision-making through sharing information and negotiating decisions over time (ibid). The NZCOM approach to birth and maternity services strongly influenced the redesign of New Zealand's maternity services that occurred between 1993 and 1996 (Guilliland & Pairman, 2010a).

Women are able to choose their place of birth and if they choose primary or secondary/tertiary facilities a national access agreement allows their LMC to accompany them into the facility to provide their labour and birth care. National referral guidelines accompany the Section 88 Primary Maternity Services Notice and guide decisions by LMCs about the necessity for referral to specialists for consultations or transfer of care. LMC midwives have an obstetric consultation rate of 35% (Skinner & Foureur, 2010). There is no evidence that the move to midwife-led care for the majority of NZ women has disadvantaged them or their babies (Dixon & Guilliland, 2010). Women report satisfaction with the maternity services overall and are able to make informed and timely choices (Health Services Consumer Research, 2008).

higher rates of interventions including electronic fetal monitoring, episiotomy and caesarean birth (Sandall, Devane, Soltani, Hatem & Gates, 2010; Tracy et al., 2006; Walsh & Downe, 2004). Maassen et al. (2008) compared planned place of birth for low risk women in the Netherlands at the commencement of labour and the incidence of operative deliveries. Findings revealed that low risk women who commenced labour in secondary care were twice as likely to have an operative vaginal delivery (18% vs 9%, OR 2.25, 95% CI 2.00-2.52) and four times as likely to have a caesarean birth (12% vs 3%, OR 3.97, 95% CI 3.15-5.01) compared with women who began labour in primary care. The authors acknowledged that they were unable to control for electronic fetal monitoring in secondary care and induction of labour which might be associated with higher rates of operative delivery.

Janssen et al. (2009) studied planned homebirths attended by Canadian registered midwives (n=2889) compared with a similar sample of low risk women who planned a hospital birth and were attended by the same cohort of midwives (n=4752). The women who had planned a homebirth experienced reduced risk of all obstetric interventions and the neonates of these women were at similar or reduced risk of fetal and neonatal morbidity compared with the planned hospital birth cohort. A NZ study by Miller (2008) explored the outcome of 109 women who planned a homebirth and 116 women who planned a hospital birth. Miller found that a significantly higher number of women had a normal birth among the planned homebirth group as compared with the planned hospital birth group (95.4% homebirth group v 79.3% hospital group, p=0.001).

A recent publication of a meta-analysis of home and hospital births (12 studies included from 7 different countries) by Wax, Lucas, Lamont, Pinette, Carin and Blackstone (2010) stated that planned homebirth was associated with fewer intrapartum interventions for women and that neonatal outcomes included less frequent prematurity, low birth weight or need for ventilation. However, the authors claimed that planned homebirth was associated with a tripling of the neonatal mortality rate. A Dutch study by de Jonge et al. (2009) who studied over 500,000 low risk planned home and hospital births found that there was no added risk of neonatal mortality when considering perinatal and neonatal mortality up to 7 days postpartum (this study was unfortunately excluded from the Wax et al., study as the latter group considered neonatal mortality to 28 days postpartum). Janssen (2010) criticised the validity of the study by Wax et al. pointing out that only 75% of the homebirths were attended by a midwife or physician, therefore one quarter of the homebirths might have been unplanned as the women were unattended. Janssen et al.

The resultant women-centred and midwife-led maternity service is unique in the world.

1996. The Code sets out 10 rights of consumers and duties of providers. These include the right to be fully informed, and the right to make an informed choice and give informed consent (Health and Disability Commissioner, 1996). As mentioned above LMCs are contractually obliged to provide information and ensure informed choice and consent processes for women in their care. The principles of informed choice and informed consent are also embedded in the national referral guidelines that accompany the Section 88 Primary Maternity Services Notice 2007. This states that women must be involved in all discussions about referral or transfer of their care to specialists (Referral Guidelines, 2007).

The importance of women being able to make informed decisions about their care is also a key principle in the NZ College of Midwives' philosophy, standards for practice and Code of Ethics that all identify that midwives work in partnership with women (NZCOM, 2008). A descriptive model of midwifery partnership was written by Karen Guilliland and Sally Pairman in 1995 to help midwives understand what was

Despite the emphasis on choice of birthplace, over 84% of births in NZ occur within secondary/tertiary hospitals (Ministry of Health, 2010a). Of the 51 rural primary maternity units, 31 are located more than 60 minutes from a base hospital (Hendry, 2009; Skinner & Lennox 2006). The lack of primary units within some geographical areas of NZ and the lack of access to primary units for many women domiciled in urban areas limit the options available to women and to LMC midwives. This is important because there is increasing evidence that when low risk women birth in high technology maternity facilities their outcomes are not as good as those low risk women who birth at home or in primary maternity facilities (Davis et al., 2011).

PLANNED/ACTUAL BIRTHPLACE AND OUTCOMES RE BIRTHPLACE

The place of birth is important as studies show that when low risk women commence labour in large hospitals they are more likely to have

(2009) raised questions with regard to the use of the United States Standard Certificates of Live Births as an accurate means of identifying low risk women. They concluded that the inclusion of only 36% of women in participating states renders the findings by Wax et al. (2010) as not suitable for generalization. Crowther, Gilkison and Hunter (2010) critiqued the Wax et al., (2010) study and urged midwives to question the validity of a study that included data from thirty years ago alongside unattended homebirth data. Crowther et al., (2010) summarised the critiques stating that women should be supported to have homebirth and MMPO data need to be examined in relation to NZ birthplace outcomes. A further study by Evers et al., (2010) claimed that women of low risk who received care by midwives from the Netherlands had a significantly higher risk of delivery-related perinatal deaths. Evers et al., (2010) stated also that women referred to an obstetrician during labour had a 3.66 times higher risk of delivery-related perinatal death than those who started labour supervised by an obstetrician. In order for these finding to be credible, further critique is necessary to

relational care in homebirth tended to be more woman-centred and more intense, with an increased sense of responsibility and satisfaction in this environment. Parratt and Fahy (2004) echoed that the home enabled the midwife to create a safe environment with the woman that promoted the hormonal cascade of endorphins and other hormones necessary for normal birth. In NZ Smythe, Payne, Wilson and Wynyard (2009) reported that 88-91% of women who commenced labour at the Warkworth birthing unit over a three year period, birthed in this unit. The authors concluded that midwives at the primary maternity unit showed confidence in normal birth by being relaxed and not trying to hurry the labour along and women felt satisfied that they were at the centre of how the service is run. Similarly, Barlow, Hunter, Conroy and Lennan (2004) conducted an evaluative study of a primary maternity unit in NZ and reported that 1203 women commenced labour in the primary unit over a three year period of time and 87.2 - 89.6 per cent of women birthed in the primary unit. Some 47.2 percent of the users of the unit were Māori while 41 percent were Pakeha. In relation to Māori women

demographic information, health history, obstetric history and key data related to antenatal, intrapartum and postpartum events, including referrals to obstetricians. For the purpose of this study, low risk women were defined at the beginning of labour. Exclusion criteria were previous caesarean, haemorrhage >1000mls, severe pregnancy induced hypertension, gestational diabetes, Rh sensitisation or ABO incompatibility. Health history exclusions were hypertension, diabetes, thyroid disease, drug abuse, heart disease, pulmonary disease/asthma, any haematological, neurological, renal/urinary tract, musculo-skeletal disorders. Women were excluded if they had any obstetric consultation during the current pregnancy, transfer of care, labour <36 weeks or >42 completed weeks of gestation, induction of labour, abnormal presentation, or elective caesarean.

Exclusion criteria and the methods of analysis were determined prior to data retrieval. Analysis was performed using the statistical package Stata V10 (Stata Corp, College Station, Texas, USA). Birthplace definitions were established prior to retrieval of data and these followed the definitions used by the Ministry of Health (2010b). Primary maternity units were defined as birth centres without access to epidural analgesia or caesarean birth facilities. The difference between secondary versus tertiary hospitals in NZ is related to the level of neonatal intensive care with tertiary hospitals providing intensive care to lower gestation neonates. Ethical approval was gained from the NZ Multi-region Ethics Committee. The research group met at face-face meetings initially in order to plan the study. During the process of data analysis and interpretation of results, meetings occurred online and via teleconference and e-mail.

FINDINGS

From the 2006/2007 data 16,453 low risk women were identified (41% of the total births captured during 2006-2007 in the MMPO database). In our study 11.29% (n=1830) of the total cohort planned a homebirth, 17.75% (n=2877) planned to give birth in a primary unit and 70.96% (n =11503) planned to give birth in a secondary/tertiary setting. The results show a high association between the intended and actual birthplace with 82.68% of women planning to give birth at home and 90.23% of women planning to give birth in a primary maternity unit actually giving birth in their planned birthplace. Only 3.95% of multiparous women did not give birth in their planned birthplace as compared with 6.02% of primiparous women. This result was statistically significant (p<0.001).

The cohort of low risk women was analysed by ethnicity, planned birthplace and domicile. For Māori, 23.06% planned to birth in primary units (36.89% of Māori live in rural/ or remote rural areas) as compared with 17.51%

Low risk women who commence labour in low-technology settings have lower intervention rates

uncover the reasons why perinatal mortality was significantly higher after transfer to specialist services. It is important to establish whether a delay in treatment after referral had taken place contributed to poor outcomes; a point raised by the authors who indicated they did not establish the referral-treatment interval.

MIDWIFERY PRACTICE IN RELATION TO BIRTHPLACE

Another aspect of concern regarding birthplace is the association between the setting and the ability of the midwife to provide flexible midwifery care. Midwives might be prevented from enabling 'normal birth' to occur within high-technology, time-pressured, medical-led large hospitals unless there is a strong culture of enabling physiological birth (Davis & Walker 2010; Earl & Hunter, 2006; Foureur & Hunter, 2010; Hunter, 2000, 2003; Keating & Fleming, 2009; Seibold, Licqurish, Rolls & Hopkins, 2010). Van der Hulst (1999) revealed data from interviews of 150 independently practising midwives in the Netherlands and concluded that midwives had a different relationship with clients according to the place of birth. The

and place of birth, Tupara (2001) cautioned midwives against generalisations about Māori in that the dearth of literature means that it is inappropriate to draw conclusions about Māori and childbirth. With this caution in mind, further research is required to establish whether or not Māori women (and whanau) within NZ prefer primary maternity units as compared with secondary/tertiary hospitals.

A review of the literature shows the importance of birthplace as low risk women who commence labour in low-technology settings have lower intervention rates. However, debate continues with regard to neonatal outcomes for homebirth and further large robust studies are required especially those that compare the same time period for neonatal outcomes.

METHODS

Data were extracted from the MMPO database. The MMPO held data for approximately 32% of the total births occurring nationally in 2006 and 2007. These women and babies were cared for by LMC midwives who contribute their data to the MMPO database. The database includes

	Planned Home	Planned Primary Maternity Unit	Domicile Rural or Remote Rural	Planned Secondary/ Tertiary Hospital	Birthing in planned birthplace
Māori	9.18%	23.06%	36.89%	67.76%	96.59%
Pacifica	6.72%	14.04%	8.66%	79.24%	96.59%
Asian	4.30%	10.15%	14.15%	85.54%	96.59%
NZ European	12.88%	17.51%	36.45%	69.61%	95.74%
Other ethnicity or ethnicity not stated	10.96%	8.85%	14.2%	80.19%	95.77%

Table 1: NZ Birthplace Study Findings: Ethnicity, Rural/Remote Rural domicile and Planned Birthplace

of NZ European (36.45% NZ European live in rural or remote rural areas) and 10% Asian women (14.15% Asian live in rural or remote rural areas).

In this study more Māori and NZ European women live rurally (36.89% & 36.45%). However, only 17.51% of NZ European women chose to birth in a primary maternity unit compared with 23.06% Māori women.

DISCUSSION

Association between planned/actual birthplace

The positive association between planned and actual birthplace is reassuring for NZ women and LMC midwives. In our study 82.68% of women who planned homebirth had a homebirth. This compares well with a Canadian study that showed of 2899 British Columbian women who commenced labour at home, 78.8% gave birth at home (Janssen et al., 2009). The model of care between British Columbia and NZ has similarities in that midwives are able to provide continuity of care and offer the option of homebirth.

Intrapartum transfer rates are variable within and between countries. Walsh and Downe (2004) analysed data from studies done in the United States, United Kingdom, and Germany. Intrapartum transfer rates from freestanding birth centres varied between 14.6-22%. The main reason for transfer in each of the studies was failure to progress in the first stage of labour. The reason for transfer was not analysed in our study, however, there was a statistical difference between parity and not giving birth in planned place (multip 3.95% v primip 6.02%, $p < 0.0001$). As would be expected, a larger proportion of primiparous women did not give birth in their planned place of birth compared to multiparous women.

Transfer might be viewed as a deterrent against planned homebirth or birth within a primary maternity unit. Watts, Fraser and Munir (2003) reported less satisfaction among English women transferred intrapartum despite a safe outcome for themselves and their babies. The process of transfer tends to result in interventions (unless

the woman gives birth en route or immediately after transfer), thus the intervention factor might contribute to lower levels of satisfaction (Watts, Fraser & Munir, 2003). Fontein (2010) and Rijnders et al. (2008), found that women who planned a homebirth in the Netherlands exhibited the greatest satisfaction overall with their experience. Symon, Dugard, Butchart, Carr and Paul (2011) surveyed 515 dyads' (women and their partners) perception of care and environment in midwife-led and obstetric-led units. As in other studies, women and their partners who attended obstetric-led units were less positive than those attending midwife-led units. In NZ 96% of women reported satisfaction with their maternity care overall, with the majority (86%) giving birth in the facility of their choice (Health Services Consumer Research, 2008). Of women who had a homebirth 93% were very satisfied while 58% of those who gave birth in hospital were very satisfied. The authors did not separate hospital births into primary, secondary and tertiary categories therefore it is unknown if differences in satisfaction occurred between primary maternity unit and secondary/tertiary hospital experiences.

Choice of birthplace in relation to other studies

The primary maternity unit birth rate in our study (17.75% planned primary unit, 16.25% actual) compares favourably with the NZ 2006 national rate of 16% (Ministry of Health, 2010b). The percentage of women in the secondary/tertiary cohort in our study (74.36%) is lower than the national total of 84.2%

(ibid) as our study excluded women with risk factors. Homebirth rate was not reported by the Ministry of Health (2010b).

Nevertheless, our study reveals that 70.96% of low risk women planned to labour in secondary/tertiary settings even though they had no obstetric indication for such a choice. The preceding literature review supports the notion that low risk women are prone to increased interventions when labour is commenced in secondary/tertiary hospitals. In light of this information, women need to be informed about the possibility of having unnecessary interventions, depending on the birth setting chosen, in order to make an informed choice about birthplace.

The factors influencing choice of birthplace were not explored in our study but remain of interest to the authors. Historically, homebirth was the dominant birthplace in NZ but this rapidly decreased with the move to hospital for birth. A 1991 study estimated that only one percent of births were planned homebirths (Abel & Kearns, 1991). Abel and Kearns (1991) expressed concern that options of birthplace had reduced because few practitioners offered homebirth services, small hospitals had closed and obstetric services were increasingly centralised. The findings of our study suggest that for women under the care of LMC midwives birth outside of secondary/tertiary settings is now becoming more common. Some 29% of the women in our study chose either home or primary units as the place of birth and some 25.6% achieved their choice. These figures compare favourably with Australia where only 2% of all births are in birth centres (Australian Institute of Health & Welfare, 2009; Seibold et al., 2010). In the United Kingdom approximately 2% of births occurred within birth centres in 2006 (Walsh, 2006). Less than one percent of Australian women (0.3%) had a planned homebirth in 2007 (Australian Institute of Health and Welfare, 2009) and this is likely influenced by lack of public funding and lack of indemnity insurance for midwives. Vedam, Aaker and Stoll (2010) suggest that low rates of homebirth in America might be explained by the lack of promotion of homebirth as an option. They contend that maternity providers influence women through their attitudes and tend not to offer options that they are

Our study reveals that 70.96% of low risk women planned to labour in secondary/tertiary settings even though they had no obstetric indication for such a choice

uncomfortable with. The authors stated that only 4% of midwife members of the American College of Nurse Midwives offer homebirth within their practice, despite being educated to care for women in a variety of settings. A recent study regarding consumer satisfaction of the NZ maternity services (Health Services Consumer Report, 2008) stated that 86% of consumers responded affirmatively that they had been given a choice of birthplace.

Christiaens and Bracke (2009) compared place of birth between the Netherlands and Belgium, two countries that share many commonalities but have different philosophies about maternity care. The Dutch government mandates primary maternity care through legislation and insurance policies so that low risk women are directed to primary care and 30% of women birth at home. Midwives are considered to be the primary health practitioner for women having 'normal' births. In contrast, 98% of Belgian women consult an obstetrician (there is no restricted access to specialist care) and only 1% of Belgian women have homebirth.

Planned/Actual Birthplace by ethnicity

In our study, 23.06% of Māori women planned to birth in primary units compared to 17.51% of NZ European women and 10% of women identifying as Asian. In contrast, 36.6% of Asian women planned to birth in a tertiary hospital compared to 27.5% of NZ European women and 12.8% of Māori women. Table 1 shows the planned and actual places of birth for women by ethnicity and domicile.

Many Māori women seek maternity care that recognises and respects their culture. Māori researcher Hope Tupara (2010) states that the health of Māori women needs to be viewed within the wider context of their collective social support and that midwives need to work in partnership with Māori. Nga Maia, an organisation that represents Māori midwives and consumers has developed Turanga Kaupapa as a set of guidelines in relation to Māori values about childbirth (NZCOM, 2008). These values include the spiritual connections and relationships of land, life, family and genealogy. Some Māori women may find that giving birth at home or in a primary maternity facility makes it easier for their family to be involved and their cultural practices to be respected.

Planned birthplace is important as interventions increase when low risk women commence

The findings of our study indicate that those women assessed as low risk prior to labour are very likely to birth in their place of choice

labour in secondary/tertiary hospitals. Provisional 2008 data from the Ministry of Health (2010a) presented in Table 2 show normal birth and caesarean birth rates according to ethnicity within NZ:

While these data are preliminary, the NZ European and Asian caesarean rates are high in comparison with the rates for Māori and Pacifica women. Further analysis is needed to link the place where labour commenced and the outcomes for women and babies. The Maternity Report 2006 (Ministry of Health, 2010b) revealed that more than 20% of Māori women birthed in a primary maternity unit compared with 10% of Asian women, 15% of NZ European women and 15% of Pacifica women. The Ministry of Health data (2010a) of birthplace and ethnicity mirror findings from our study which shows that Māori women are the highest users of primary units and Asian women are the lowest.

CONCLUSION

Our study shows a high association between planned and actual place of birth: 82.68% of women planning to birth at home actually birthed there and 90.23% of women planning to birth in a primary maternity unit (birth centre setting) actually did so. In our study 9.36% of women birthed at home while 16.25% of women birthed in a primary maternity unit. Nevertheless 74.36% of women birthed in a secondary/tertiary maternity facility. Our study did not examine why women chose their place of birth and we do not know the extent to which women's choices are limited by access to primary maternity units.

The findings of our study indicate that those women assessed as low risk prior to labour are very likely to birth in their place of choice. This important finding should reassure women and midwives. While the homebirth percentage might appear low in comparison to the

Netherlands, homebirth and primary maternity unit usage in this NZ cohort appears to be higher than rates reported in the United Kingdom and Australia. Further research is needed to establish the influences upon ethnicity and choice in relation to birthplace. Further research is also needed to establish the influence of the care provider on birthplace decisions.

Limitations of our study include the potential exclusion of low risk women through those women having an obstetric consultation during the pregnancy. However, our findings should reassure midwives and women that low risk women, especially parous women, who commence labour at home and in primary units are likely to birth in those settings.

We encourage LMC midwives in NZ to offer low risk women choices regarding place of birth, including the options of homebirth and primary maternity units. All student midwives should have the experience of working with midwives and women in the variety of birth settings available in NZ so that they can be confident to offer women choice of birthplace in the future. Maternity planners need to be cognisant of the high usage of primary maternity units by Māori women. They also need to be aware of the increased costs to the health system when low risk women have unnecessary intervention because they gave birth in a high technology maternity facility. The maintenance and indeed the increase of primary maternity facilities must be considered to meet the needs of all women and to decrease the cost and long term impact of unnecessary intervention in childbirth. Women and their families also need to be informed of the increasing evidence that shows the increased risk of unnecessary intervention for low risk women who commence labour in secondary/tertiary hospitals.

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	Maori	Pacifica	Asian	NZ European	Other	Not stated	Total rate overall
Normal birth	77%	75.7%	57.9%	61.5%	61.1%	65.1%	66%
LSCS	16.7%	18.8%	27.3%	27.5%	28.9%	18.6%	24.3%

Table 2: Type of Birth and Ethnicity: Provisional data from Ministry of Health (2010a) for births during 2008 in NZ.

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Quantity or quality of postnatal length of stay? A literature review examining the issues and the evidence

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ABSTRACT

In New Zealand as in other Western countries, length of hospital postnatal stay has reduced dramatically over the last few decades. Contrary to this trend, a recent New Zealand Government initiative provided funding to increase the length of postnatal stay. This literature review sought evidence that would inform and support this policy initiative. The literature located suggests that the focus of care should be directed to improving quality and flexibility of postnatal hospital stay rather than offering a longer length of stay per se.

KEY WORDS:

Postnatal, length of stay, postnatal care, early discharge.

BACKGROUND

Postnatal care is critical; a time of physical, emotional, social and psychological adjustment, a transitional journey for women

as they become mothers; an experience shared in partnership with midwives (Dixon, 2009). However, postnatal care appears to be marginalised within maternity services, often referred to within midwifery discourse as the 'Cinderella' of the childbirth journey, with questions asked as to whether or not maternity care policies have had any positive impact upon postnatal care (Wray 2006b).

In New Zealand a 2007 consumer satisfaction survey found that overall women were satisfied with postnatal hospital care services, with only 13% not feeling ready for discharge. Six percent of these women also commented that their length of stay was insufficient (Health Services Consumer Research, 2008). Media attention following the death of a baby led to another review of maternity services in 2008. This review was conducted within one New Zealand DHB. In contrast to the previous report, postnatal care was highlighted as being the least satisfying aspect of care (Crawford, Lilo, Stone, & Yates, 2008).

Leading on from these reports, a policy document "Health Policy: Maternity Care" was released in 2008 by the National Party as part of its election manifesto (National Party NZ, 2008). This proposed, amongst other things, increased funding support for longer postnatal hospital stays. On coming into Government in 2009 the policy was enacted. This provoked much discussion, as longer postnatal stays impact significantly on already stretched bed availability and there would be a need to locate more midwifery staff in an environment which, at the time, had a shortage of midwives. This policy also ran contrary to previous service models of care, which have reduced postnatal length of stay. For example recent data from one New Zealand DHB revealed that between 2002- 2007, 6% more women were discharged home within 12 hours of birth. The average

length of stay (LOS) for a primigravid woman is 2.78 days and for multigravid women 1.9 days (Capital Coast Health DHB, 2009). Differing opinions exist around what actually constitutes an early discharge and a standard length of stay (CETS 1997; Boulvain et al., 2004; Brown, Small, Argus, Davis & Krastev, 2002). There are also varied and often controversial opinions on effects of early discharge on both mother and baby (Brown, Darcy & Bruinsma, 2001; Brown, et al., 2002; Heck, Scoendorf, Chavez, & Braveman, 2003; Brown, Darcy, Bruinsma, Small & Lumley, 2004). In contrast, there has been little literature specifically around the impact of increasing the length of postnatal stay (Roberts & Kruger, 2001).

Given the reduced availability of resourced beds and of midwifery staff, the maternity services are under increased pressure (McLachlan, Gold, Forster, Yelland, Rayner & Rayner, 2009). Therefore, one needs to ask questions about how to improve the postnatal experience of women and their babies. Is there any evidence that increasing the length of stay improves outcomes and what are the key messages in the literature about how to improve the quality of postnatal

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care that women receive? This paper reports on the findings of a review of the literature undertaken to answer these questions.

METHOD

The literature review was undertaken, searching the databases of CINAHL, MIDIRS, MEDLINE, the Cochrane Collaboration, and the NICE guidelines. Search strategies were limited to within years 1997-2009, incorporating hierarchies of evidence, focusing mainly on research papers followed by health policy and discussion papers, all in the English language. The search strategy included literature within Europe, the United States, Canada Australia and New Zealand and was critiqued within the context of different postnatal care packages, models of care and length of stay.

FINDINGS

Extracting literature specifically related to postnatal length of stay proved challenging, as many papers discussed levels of satisfaction with postnatal stay in general rather than specifically addressing length of stay. A search of the Cochrane Collaboration produced two systematic reviews specifically related to outcomes of early postnatal discharge but not directly to the quantity or quality of postnatal stay (Brown et al, 2002: CETS, 1997). The National Institute of Clinical Evidence (NICE) guidelines were also accessed (Dermott et al, 2006).

Twenty six papers were identified as being key to the research question. Twenty were research-based papers (Table 1) and six were discussion papers. The paper by Watt, Sword and Krueger (2005) was the

Women really wanted a safe, secure hospital environment conducive to acknowledgement of individual needs

only paper found which directly related to assessing the impact of increasing postnatal hospital stay. The issues that were covered in the research papers can be grouped into four areas: expectations and perceptions of postnatal hospital stay, length of stay, models of postnatal care delivery, and outcomes associated with flexibility and increasing the length of stay. The overall theme that emerged was the importance of improving the quality of postnatal care whether it is provided in the hospital or within the community.

EXPECTATIONS AND PERCEPTIONS OF POSTNATAL HOSPITAL STAY AND LENGTH OF STAY

There was a reasonably consistent message throughout the literature that indicated a need to be flexible around care provision in the postnatal environment. Brown et al. (2002) for example found differences of opinion existed as to what constituted an optimal postnatal length of stay and moreover suggested that the words 'early discharge' imply to women that a standard length of stay does in fact exist. McLachlan et al.'s study (2009) stressed women's individual needs had to be acknowledged, as women were concerned about shorter length of stay. There had to be flexibility with maternity service provision which explored consumer views and satisfaction to determine flexibility of postnatal care and length of stay. Roberts & Kruger (2001) also found perceptions and expectations of postnatal length of stay varied, dependant on each individual woman's health issues, level of postnatal education, model of care and amount of on-going support at home.

Consistently throughout the literature however, women expected an environment conducive to rest and privacy, more support with breastfeeding and basic infant care (Beake, McCourt, & Bick, 2005; Brown et al, 2004; Wray, 2006a; Kanotra, D'Angelo, Phares, Morrow, Barfield, & Lansky, 2007; & Ministry of Health, 2007).

Wray's study (2006a), also demonstrated preference for increased flexibility around visiting hours, allowing more opportunity for rest.

At a later date Wray (2006b) conducted observational fieldwork within hospital postnatal wards, and noted minimal interaction between women and staff, with call-bells being rung to receive attention. Schmied, Cooke, Gutwein, Steinlein & Homer (2008) looked at strategies to improve postnatal care experiences and suggested the use of parenting rooms in a bid to encourage socialisation of mothers particularly at meal times. McLachlan et al. (2009) and Beake et al. (2005) concluded in their studies that women really wanted a safe, secure hospital environment conducive to acknowledgment of individual needs.

MODELS OF POSTNATAL CARE DELIVERY

There was considerable discussion in the literature about the way care was provided in the postnatal ward. Wray (2006b) questioned whether hospitalisation after birth was worthwhile as such processes as frequent staff redeployment gives the message that postnatal care is under-valued. Similarly, Bick (2008) commented that maternity services are becoming resource driven rather than woman-centred, with pressure on staff to maintain a low turnover interval between discharges and new admissions to the ward. The review of maternity services by Crawford et al. (2008) acknowledged deficits within the workforce to meet the needs of the service, combined with recent media attention, could have contributed to lower satisfaction rates with postnatal care.

Marchant (2006) highlighted the intention of the National Institute for Health and Clinical Evidence (NICE) guidelines on postnatal care was to produce flexible, individualized care for women and increase levels of satisfaction with postnatal care. However, as Richens (2007), points out, implementation of these guidelines continues to be a major challenge,

Women expected an environment conducive to rest and privacy, more support with breastfeeding and basic infant care

with responsibility often falling on the midwives. Delivery of postnatal care within individualized team models of care and length of stay seemed to be a key for success when McLachlan, Forster, Yelland, Rayner, & Lumley (2006) reviewed structures of hospital postnatal care. In an earlier study, Brown et al. (2001) knew women were more positive about their postnatal experience, when they had already met one or more of the midwives in the antenatal period.

Various models of care increasing women's satisfaction, specifically around length of stay existed within the literature. Dato, Saraiya & Ziskin (2000) in a New Jersey study, assessed women's satisfaction with length of stay, where the law required a minimum 48 hours postnatal stay. This study revealed that 85% of women cited their length of stay to be too short, with older, married, white women remaining the least satisfied despite a longer length of stay. Similarly, Watt, Sword, & Krueger (2005) discovered women were more satisfied when given choice and flexibility around postnatal length of stay as opposed to a policy initiative implemented offering women up to 60 hours postnatal hospital stay following uncomplicated birth.

Boulvain et al. (2004) compared outcomes of a shortened hospital postnatal stay of 24-48 hours versus traditional hospital care of 4-5 days. They found that early discharge for low risk women was an acceptable alternative to a longer postnatal hospital stay, if supplemented with adequate midwife home visits. Therefore, it would appear early discharge for low-risk women in New Zealand would seem a safe option, given the requirement for women to receive a minimum of seven postnatal home visits at home and the requirement to receive a home visit within 24hrs of discharge from the facility (Ministry of Health 2007). A survey in 2007 confirmed the majority of women in New Zealand did receive between 5-10 postnatal home visits (Health Services Consumer Research, 2008).

Ellberg, Hogberg, Lundman and Lindholm (2006) gained further insight into parents'

preferences around postnatal models of care. Cost benefits of all options exploring length of stay and staffing levels were analysed. Parents preferred a model of family suite care, as opposed to traditional maternity ward or early discharge. Individualized approaches to postnatal care were supported by Schmied et al. (2008) whose study demonstrated women preferred flexible continuity of care. This led to a key practice change whereby midwives offered some uninterrupted time with each woman during their postnatal stay. McLachlan et al. (2009) also investigated the impact of different models of care whereby focus group discussion and interviews with parents resulted in women requesting a more individualized, flexible length of stay and actually valued hospital postnatal stay rather than opting for a shorter hospital stay package.

OUTCOMES ASSOCIATED WITH FLEXIBILITY AND INCREASING LENGTH OF STAY

In general, the evidence in the literature is equivocal about whether earlier or later discharge is associated with adverse outcomes. Despite one study indicating that there may be an increase in breastfeeding difficulties with early discharge (Heck et al., 2003), an earlier systematic review by Brown et al. (2001) found that women with longer postnatal length of stay actually reported more breastfeeding problems. The Canadian report CETS (1997) found no significant differences in breastfeeding outcomes associated with length of stay. Brown et al (2004), mentioned several large studies which demonstrated that infants discharged at less than 48 hours of age had an increased risk of jaundice, dehydration and sepsis but concluded, due to methodological weaknesses, that more research was necessary. Early postnatal discharge has not been associated with depression (Brown, et al., 2001; Brown, et al., 2002; Brown, et al., 2004, & Dermott, et al., 2006).

The CETS (1997) meta-analysis, found some studies on early postnatal discharge showed an increased risk to maternal and neonatal

Satisfaction was linked to flexibility of care offered rather than to length of stay itself

health but again, there were methodological weaknesses. They recommended that clear, defined discharge criteria should be available.

Dermott et al. (2006), in their systematic review of postnatal care stated that the studies on shorter length of stay demonstrated no difference in outcomes. Brown et al. (2002) also indicated quality of the studies to be poor, indicating further research was needed in this area. Ellberg et al. (2006) were more cautious about the evidence and stated that given the differing evidence and opinion on length of stay, adverse outcomes associated with early discharge could not be ruled out, making it crucial to determine any risk to the safety of mothers and babies prior to discharge. So it would appear that there is poor evidence to indicate whether there is either harm or benefit in early discharge.

INCREASING LENGTH OF STAY

The only located study which examined the impact of offering a longer postnatal stay was conducted in Ontario, Canada by Watt et al., (2005). Following a policy initiative which offered postnatal women up to 60 hours stay postnatally, the researchers examined the outcome data, conducted surveys and interviewed women from a variety of sites. This large study of 2500 women revealed that following the policy change, satisfaction with postpartum length of stay increased from 74% to 89%. With 96.1 % of women who were offered a 60 hour stay satisfied, whether or not they accepted the 60 hour stay, whereas 80% who were not offered a 60 hour stay were dissatisfied. Satisfaction was linked to flexibility of care offered rather than to length of stay itself. The anticipated large increase in extended stays did not happen as women appeared to leave hospital when they felt they were ready. There were no changes in maternal or infant health outcomes. Interestingly the

Women were more satisfied when given choice and flexibility around postnatal length of stay

Author	Type of study	Aim	Outcomes
Beake, McCourt, & Bick, (2005). UK.	Semi-structured interviews with 22 women.	To explore women's views on PN experiences in hospital and home.	Women expected opportunity to rest and to receive breastfeeding and infant care support. Environment too public, issues with disorientation, safety and lack of privacy.
Boulvain, et al., (2004). Switzerland.	RCT of 490 low risk women.	To compare postnatal package offering decreased length of stay and MW home visits with hospital stay of 4-5 days and standard follow-up.	Decreased stay group had fewer problems and more support with breastfeeding. No differences in maternal readmissions or PN depression but more neonatal readmissions.
Brown, Darcy, & Bruinsma (2001). Australia.	Surveys of 1616 women at 5-6 months postpartum.	To investigate women's views on childbirth and early PN experiences in hospital and the immediate period post discharge.	PN depression not associated with LOS, longer LOS reported more BF problems. Positive experience if they had already met their PN MW.
Brown, et al., (2002).	Literature review of RCTs comparing early discharge with standard care.	To assess the safety, impact and effectiveness of early PN discharge for healthy mothers and babies at term.	No significant adverse effects on breastfeeding or PN depression. Definition of early discharge varied.
Brown, et al., (2004). Australia.	3 population-based surveys of 3,719 women in total.	To examine the impact of shorter length of stay on breastfeeding and psychological well-being.	No significant differences in breastfeeding and depression. Women concerned about noise, busy staff, and lack of privacy.
CETS, (1997). Canada.	Literature Review. Meta-analysis examining maternal and neonatal readmissions.	To identify impact of advantages and disadvantages of early discharge on maternal and neonatal health.	Early discharge reduced hospitalization costs, risk of maternal readmission unchanged but increase with neonatal readmissions.
Crawford, Lilo, Stone, & Yates, (2008). NZ.	Service Review: interviews with stakeholders, observations and review of submissions.	To review maternity services in Wellington, NZ.	Services as safe as other parts of the country. Satisfaction with PN care was low. Information given to women was variable or inadequate.
Dato, Saraiya, & Ziskin, (2000). USA.	Sample of 1555 women.	To assess LOS, home visits and women's feelings when a State law required min. 48 hours PN stay in hospital after uncomplicated vaginal birth. No home visits if discharge prior to 48 hours.	Older, married, white women least satisfied despite longer LOS. 85% of respondents said LOS too short with 35% of these respondents wanting more time to rest.
Dermott et al., (2006). UK.	Systematic Review of literature on postnatal care.	To advise content, timing, and best practices for PN care, with readmissions and maternal depression.	Findings were incorporated into the NICE (National Institute of Health and Clinical Evidence) guidelines. The review found many variations of definition of early discharge. The quality of the studies did not enable adequate comparison of early discharge versus standard care.
Ellberg, Hogberg, Lundman, & Lindholm (2006). Sweden.	Survey of 1122 couples at 6 months postpartum.	To discover parents' preferences following birth, options of discharge packages to maternity ward, family suite or discharge < 72 hours PN.	74% preferred family suite option, 20% maternity ward and 6% early discharge. Careful evaluation of PN care and LOS management needed to maximize women's decision-making skills.
Health Services Consumer Research (2008). NZ.	National survey of child bearing women, response rate 37.5%.	To evaluate level of satisfaction with the services received.	14% women discharged within 12 hours of birth compared to 8% in 2002 survey. 85% happy with discharge time/ length of stay and 13% not ready to be discharged and felt pressure to leave, needed more rest, and help with breast feeding, facility issues and medical reasons. Under representation of younger mothers.
Heck, et al (2003). USA.	Surveys from a population based study of 10, 519 child-bearing women.	To examine length of stay and duration of breastfeeding.	Women discharged earlier than the standard length of stay are at increased risk of terminating breastfeeding.
Kanotra, et al., (2007). USA.	On-going surveillance study of 324 women's experience in postnatal period.	To identify challenges women face 2-9 months postpartum related to social support, breastfeeding, newborn care, postnatal depression, and length of stay.	More support required with breastfeeding, infant care and more time in hospital, more information on postnatal depression. Only 8% commented on postnatal length of stay.
McLachlan, et al., (2006). Victoria, Australia.	Purposive sampling of clinical staff and managers at 71 public hospitals .38 midwives and medical practitioners interviewed. Response rate of 96%.	To describe organisation of hospital postnatal care looking at the environment, visitors rest periods, length of stay and bed occupancy, continuity of care, clinical care and rooming-in.	Postnatal documentation and fixed length of stay may prevent individualized care and support. Staffing constraints and visitors created busy environment, hindering care. MW care model improved women's expectations and postnatal satisfaction.
McLachlan, et al., (2009). Australia.	8 focus groups plus 4 individual interviews with child-bearing women and their partners. Total of 52 participants.	To ascertain experiences and expectations of early postnatal care in hospital home and views of alternative packages.	Concerns about shorter postnatal length of stay, declined the package option of hospital stay combined with more community visits, wanted more individualized, flexible length of stay.
Roberts, & Kruger, (2001). Australia.	An audit of length of stay and reasons for delay in discharge, and a survey of 100 women.	To examine reasons for extended length of stay and to gain insight into perceptions of postnatal length of stay.	Increased length if stay related to medical, wound related and psychological reasons. Neonatal reasons were jaundice, weight loss, transfer to special care and suspected sepsis. Stressed the importance of midwives knowing how women perceive their length of stay in regards to current practice.
Schmied, et al., (2008). Australia.	Action research Literature review by MW participants and interviews within focus groups to identify problems, plan actions, implement and evaluate.	To investigate strategies to improve postnatal experience.	Women preferred continuity of care, lactation support, individual, flexible model of care. MW plan of dedicated 'one to one' time with women during postnatal stay. Challenge to achieve with staffing and resourced beds constraints.
Watt, Sword, & Krueger (2005). Canada.	2 surveys of 1250 mothers at 4 weeks post discharge. Response rate of 61.2% and 82.8%.	To determine practice implications of policy initiative offering women 60 hour postnatal stay.	Implementation challenged due to limited bed resources & increase in delivery rate. Women preferred option & flexibility of length of stay. Maternal readmissions increased.
Wray, (2006a). UK.	452 participants from two locations in North West of England.	To study women's experience of postnatal care in hospital and community with infant feeding/ baby care, visiting and rest.	Postnatal care at home positive and more valuable than hospital. Context of ward needs to be better understood due to high throughput of women.
Wray, (2006b). UK.	Ethnographic observational fieldwork of 2 postnatal wards.	To explore women's postnatal experiences to debate whether or not postnatal care is becoming deficient in purpose, the 'Cinderella' of midwifery.	Lack of socialization between both mothers and staff with mothers reluctant to ring the call-bell and anxieties with ward security. Heavy workload on staff. Need to raise status of postnatal care.

Table 1: Summary of research papers related to research question

Women's views and opinions must be taken into consideration when maternity services are designed

women who were offered this increased stay were more likely to be of Canadian ethnicity, less likely to be marginalised and were more likely to have social support. Those mothers who were most at risk, the young, the poor and the unsupported were less likely to be offered the longer stay.

CONCLUSION

Availability of research specifically around longer postnatal stay was both limited and of poor quality, the results from the literature review mainly focused on early discharge outcomes and women's views on postnatal care. Given the current evidence that women continue to be dissatisfied with postnatal hospital services, it would appear contradictory to offer longer postnatal stay. But in light of the evidence, and in the context of New Zealand midwife-led maternity model of care, there would appear to be minimal risk associated with early discharge.

Women's views and opinions must be taken into consideration when maternity services are designed, allowing a more flexible, individual models of care approach, aimed at increasing satisfaction with postnatal hospital experiences around length of stay. Costs and outcomes of different policies must balance the safety of both mother and baby. More research needs to be undertaken within the area of postnatal length of stay, but evidence from the literature review suggests the focus needs to be directed to improving quality and flexibility of postnatal hospital stay, as opposed to offering longer length of stay alone.

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Experiences of midwives' leaving Lead Maternity Care (LMC) practice

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ABSTRACT

Background: The government funded self-employed midwifery model of practice is unique to New Zealand. The nature of such practice requires an on-call lifestyle, a willingness to take responsibility for whatever unexpected situations may occur, while still staying connected with family and friends. Midwives talk of the privilege it is to practice in such a way, yet even then they also decide to leave such practice. This article describes the experiences of three Lead Maternity Carer (LMC) midwives as they made their decision to leave their LMC practice.

Method: An interpretive methodology was used to uncover the nature of lived experience. Three midwives who had recently left self-employed practice as Lead Maternity Carers were interviewed. Data were analysed through a process of reading, thinking, writing and re-writing.

Findings: The collective story of the three midwives interviewed is one of being passionate and committed to midwifery practice. Paradoxically it is perhaps these characteristics that lead to midwives over-spending themselves and becoming burdened to the point of choosing to leave. Situations that provoke feelings of betrayal, excessive responsibility, and outrage tipped the balance. One situation too many brought awareness that it was time to 'finish'.

Conclusion: The findings illustrate the potential for a high emotional cost of providing continuity of midwifery care which can trigger the need to leave. Midwives might consider the possibility of seeking additional support to identify and deal with the emotional and physical demands of their work. The Midwife First Year of Practice programme and processes

of professional support such as professional supervision may go some way in alleviating the isolation that can be part of LMC practice.

INTRODUCTION

Being a self-employed midwife is joyous, fulfilling, challenging, stressful and exhausting, with such emotions often in play within the same birth experience. While the extended roles of practice provide a unique collaborative partnership between midwives and women, there is a cost to midwives in terms of the twenty-four hours a day on-call and responsibility for maintaining the partnership (Skinner, 1999).

Both rural and urban New Zealand midwives work in group practices and partnerships as well as on their own. The impact of midwives leaving midwifery practice has significant repercussions in that there are then fewer midwives who are able to give each other support, professionally, socially and emotionally. A likely long term consequence of experienced midwives leaving the workforce could be a workforce of less experienced midwives, with new graduates unable to find mentorship and support (Ball, Curtis, & Kirkham, 2002). This may then lead to a lack of experienced collegial support, and result in graduates who may only work for a relatively short time in LMC practice (ibid). This research sought to explore the accumulative stress points for midwives in LMC practice which resulted in their decision to leave LMC practice. It was anticipated that by understanding the issues, proactive strategies could be considered. A phenomenological methodology was used to provide the midwives interviewed an opportunity to describe their personal experiences of leaving as part of the broader picture of LMC practice in New Zealand.

BACKGROUND

Internationally, research has shown that midwives' experiences of their workplace were a defining factor in their decisions to stay or leave. The Commonwealth Steering Committee Discussion papers (2001, 2002) recognised that acute nursing and midwifery staffing shortages were linked to how staff experienced their work place environment. Issues of harassment, threats, violence and abuse resulted in stress, ill health and absenteeism and caused staff to look for better work conditions overseas.

Extensive research undertaken in the United Kingdom has cited these issues of negative work place environments as significant in midwives' decisions to stay or leave their profession (Ball, Curtis & Kirkham, 2002; Barber, 1998; Mander, 2004; Sandall, 1997; Sandall 1999). A lack of support from colleagues was also described as contributing to their stress and their decision to leave midwifery practice. Compared to other health occupations working in the community, midwives had found working in community/team midwifery, continuity-of-care models, considerably more stressful. (Ball, Curtis & Kirkham, 2002; Barber, 1998; Sandall, 1999).

The New Zealand media have reported issues for midwives working in a continuity-of-care model with a number of articles identifying burnout, long hours, high workloads and insufficient remuneration as contributing factors leading to LMCs leaving (Andrew, 2005; Catherall, 2001; Humphreys, 1999; Paltridge, 2001). Midwifery researchers in New Zealand have also investigated the nature of on-call continuity-of-care and its impact on LMCs. Rolston (1999) described the always-being-on-the-job mentality as having a significant impact on LMCs' personal lives. A small qualitative

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study in which six LMCs were interviewed suggested that the boundaries between work and home had been an issue with work records and phone calls interrupting personal family life (McLardy, 2002). The impact on home life was also recognised by Engel (2003) with 'setting boundaries' a theme relating to caseload size. This qualitative study of five midwives looked specifically at the experience leading up to the time of leaving LMC practice. Issues of taking regular time off from practice, caseload size and the importance of collegial support for LMCs also featured in a telephone survey of 94 LMC midwives undertaken by Wakelin and Skinner (2007). The purpose of this research therefore was to add to this body of knowledge by further exploring the experiences of midwives who have left LMC practice. The objective of this research was to provide an opportunity for midwives to tell their own stories.

METHODS

An interpretative methodology informed by phenomenology allowed for the experiences to be described by the midwives in the form of storytelling (Van Manen, 1997). The data were collected as unstructured, in-depth, taped interviews and essential themes related to leaving LMC practice were elucidated from the experiences and stories told by the midwives.

The midwives who participated in this study were chosen 'purposely' in that they were people from the lead researcher's professional network who had recently left LMC practice and therefore had knowledge of the phenomenon being researched. Burns and Grove (1997) identify that this way sampling allows for "conscious sampling by the researcher of certain subjects or elements to include in the study" (p. 306). One midwife approached chose not to participate. Care was taken to ensure that no midwives felt coerced by offering a verbal invitation to participate, or decline, to become part of the study. A sample of three was selected as appropriate for the size of the study which used phenomenological research methodology (Burns & Grove, 1997). Two of the three midwives had worked as LMCs in semi rural areas; one also had clients in the large city where she lived, as well as rural clients. The third midwife had worked in a remote rural area based in a medium sized town with a widely spread rural population. The three midwives had worked from five to eleven years in LMC practice and they had left LMC practice between six months and three years before the interviews were undertaken. The pseudonyms Beth, Lizzy and Anne have been used to maintain the anonymity of the participants. Ethical approval was gained from the Auckland University of Technology Ethics Committee.

Data were analysed by reading, re-reading, writing, thinking and re-writing (Smythe, Ironside, Sims, Swenson & Spence, 2008). The story that was revealed was one of a passion for

LMC practice. The decision to leave recognised the paradox of leaving something one loves. For some it was a sudden decision while for others it came over many months. Some of the stories leading to the leaving decision are shared to reveal the nature of the experiences.

FINDINGS

Three themes were uncovered from the data collection they were: passion and commitment, making the decision to leave and the emotional impacts of practice.

PASSION AND COMMITMENT

Supporting women through the normal process of pregnancy, labour and birth is a unique experience of LMC practice. Although the LMCs had left their practice from six months to three years before the interviews took place, they still looked back on their experiences of LMC practice as positive and fulfilling. They

... I remember one woman, I actually had a student midwife, it was just amazing, just beautiful, she had a really rapid birth and she was on hands and knees sort of leaning over a bean bag and I was behind her. She had the baby, we passed the baby through onto the bean bag there, and you just saw this woman scoop this baby up like this, onto her chest and that was really special, because that student said this is the way it's supposed to be.

Although the midwives had left their LMC practice, and had no regrets for having done so, their experiences and relationships with women, particularly during labour and birth, had been incredibly special to them. Yet there came a time when Anne reached a point of needing to consider her love of midwifery alongside the impact it was having on her own life:

And I thought, I don't know if I need to be doing this any longer. And I looked and thought I love midwifery, I love working with

Three themes were uncovered from the data collection they were: passion and commitment, making the decision to leave and the emotional impact of practice

talked about the joy of working with mothers and their babies and the nature of autonomous practice. One of a number of experiences Lizzy talked about held special significance for her.

But this lady was at home on her own and there was a big log fire. A little wee cottage, tiny like a railway cottage, and cold, she had this log fire going and she just kneeled in front of the fire and birthed her baby on her hands and knees and my colleague and I. We were right by the fire just for the warmth and the rest of the house was freezing cold, and we had this beautiful warm fire it was a lovely birth and a home birth. No intervention Yes, that was awesome. I'll never forget that.

Being alongside women and supporting their normal process in an holistic way was described by the midwives in the way they provided care. They trusted, respected and valued the process and as such were part of the supportive environment which surrounded and included the woman and her family/whanau. What this meant to Beth was that it was the woman who was in charge and she was there to encourage and provide professional care and expertise.

mothers and babies, I love autonomy, the feedback I got from my clients, the demand I had when I was doing it was my satisfaction. But then you reach a point when you think: I have a life.

The midwives valued the relationships they built with women, the autonomy of being able to practice in their own way and the satisfaction they gained from being part of a family's experience of birth. Yet for these three midwives the time came to move on.

MAKING THE DECISION TO LEAVE

The decision to leave LMC practice was not made lightly. Over many years of LMC practice Beth had felt that the expectations women held of LMCs had changed from when she had first started. After a number of phone calls from clients who assumed Beth should be there for them at anytime, she decided it was time to leave.

I hung up the phone and I said to my husband, I walked out here and said to him What

would you say if I said I'm not taking anymore bookings. I don't want to deal with this anymore. And he said fine, do whatever you want and on the Tuesday, on the Tuesday we had a midwifery meeting I said I'm not taking anymore. So it was very spontaneous but it was just to do with those three phone calls on a Saturday night and I just thought I don't want this bother anymore...

Overtime, Lizzy had also considered leaving LMC practice. Lizzy had been deeply affected by the negative consequences within the relationships for the women she cared for.

Probably a year, we had about a year of just thinking I'm ready to exit this. It made me look at gosh, do I want to carry on with this thing and no, the answer is no...

As for Beth and Lizzy, Anne had contemplated the possibility of leaving her practice for a year or more. After a series of incidents which had left her outraged and exhausted, the sustainability of practice was no longer there for her.

We just sort of cast fate to the wind, I just got out of bed this morning and I just said to my husband, I said I don't want to do this anymore.

All three left LMC practice to take positions in secondary/tertiary hospitals providing midwifery care which offered a different focus from primary practice.

While the decision making process varied in time, for all of these three midwives it came from experiences of not wanting to be an LMC any longer. For each, the stories were different. The common emotional impacts were feeling betrayed, feeling overwhelmed by responsibility, feeling outraged, and feeling exhausted.

THE EMOTIONAL IMPACTS OF PRACTICE

Feeling betrayed

For the midwives their values of trust, respect and honesty gave meaning to the negotiated boundaries of their professional relationships. When these values felt undermined the midwife was left distressed:

One of the first births I had the midwife who was on duty that day, was not an easy person she was quite antagonistic. The baby was born with the cord very, very tightly around the neck. So I called for assistance. I can remember bagging the baby and just her coming in and thinking thank goodness someone else is here to help me and (the midwife) walking passed me and just glancing. That was so stunningly shocking.

Anne felt let down by her midwifery colleague; she was shocked that a midwife would walk past her and not respond in any way. Perhaps this other midwife, in her glance, saw that

Being alongside women and supporting their normal process in an holistic way was described by the midwives in the way they provided care

the baby was responding well and that this midwife, who was new to LMC practice at the time did not need assistance. Perhaps she had other urgent situations needing attention. This midwife, however, was shocked at the lack of care and support she herself received from a colleague. Even as she leaves LMC practice some years later the memory of this moment still haunts her.

For Lizzy the sense of betrayal came from an incident when she had cared for a woman in an abusive relationship. The client had left the area without letting her know and Lizzy had continued to visit the woman's house and left text messages hoping to make contact. The woman had never returned her calls. Eventually the woman returned without contacting Lizzy and the Plunket nurse visited to find the baby abused and in distress. Her immediate response had been to blame Lizzy for not providing care.

And they rang me and said, Where the heck have you been, and I said 'excuse me', and they ripped into me because they were very concerned about what they had just walked into. It made me feel terrible... it's like I'm not like that, and I have tried. So when I had explained to them over the phone, the situation, they apologised and said we are so sorry this is dreadful...

Lizzy experienced having her reputation attacked in a situation where she had tried so hard and knew that this family was at risk. Yes, she was able to explain and accept the apology but still her vulnerability stayed with her.

The midwives occasionally felt betrayed by the women that they cared for. Beth described how she had gone out of her way to support a client providing visits in the evenings after the woman had finished work. Normally Beth would have

been at home with her family and occasionally she had received a phone call from one of her children during the appointment. The woman had phoned her over weekends without considering that Beth also had a family and needed personal time. On an evaluation form the woman complained that she hadn't been the sole focus of Beth's attention.

Anyway in the evaluation it was said that I would receive personal phone calls during our appointment time, and this is a woman who would often text me on Saturday afternoon or Sunday afternoons to change appointment times and that sort of thing.

This seems such a little thing, a casual comment on an evaluation form about receiving phone calls is hardly enough to make a midwife leave the job she loves. However, behind this story is a sense that this woman did not understand the sacrifices Beth was making to give personalised care. She did not stop to think that Beth also had a family to care for. The emotions that come from relationships be they with colleagues or with women, linger as feelings of disappointment and vulnerability. Trust is lost.

Feeling excessively responsible

When the LMCs provided care for women and their babies they described feeling responsible for, not only the care of the woman, but also for managing both normal and unexpected outcomes. When Anne looked after a young couple who dreamed of having a homebirth by an open fire she gave them her full support. However when things did not go as planned, Anne's immediate response was to take charge and organise assistance.

When I got into the room, there was a great big sack, and there was a great big blob of meconium in the sack, and this terrible realisation that the baby was breech. It was no use calling a backup midwife. Would I call a midwife from the hospital? Well I'd probably get agro for that and I'd never hear the end of it and it really wouldn't help me. So I thought right there's a GP around the corner who was excellent at obstetrics who I knew would come. 'Undiagnosed breech, round the corner please, please will you come?' and he was fantastic he just said 'right'.

Previously Anne had experienced a lack of support from her midwifery colleagues and, in consequence, she elected to contact another health professional for support in this situation. This story had a positive outcome, however the outcome could have been different and the baby could have been compromised. The threat, even when it goes away, still lives on as a potential threat of the future, with the memory of feeling scared lingering (Smythe, 1998).

The midwives described feeling responsible for all birthing outcomes whatever the circumstances. Beth talked about a birth when the baby had responded poorly. Both she and

her colleague had provided professional care for the baby which, in normal circumstances, would have resulted in a good outcome and a well baby.

... and I guess it makes you feel very aware... for the outcome ... and you do hear the stories from other people... I sort of felt I'm in control but this is my total responsibility and potentially it could have been....

Feeling responsible for ensuring good outcomes had a huge impact on the way the midwives worked in their practice. Beth described 'awareness' that not all outcomes are good ones, she felt the outcome was her responsibility. When a baby dies, there is always the question of what could have been done differently. Was the risk already there, or was this unsafe practice (Smythe, 2003) Midwives agonise over such questions in relation to their own involvement, and also in terms of how others may perceive the standard of care. The worry pervades.

Feeling outraged

Professional relationships for Anne, Lizzy and Beth included midwives, clients, clients' friends and family/whanau and a range of health care professionals. The midwives described being confronted to the point of feeling overwhelmed and outraged when they saw their clients and their babies treated with neither care nor respect. They described seeing women being abused and disempowered by both systems and their dysfunctional families.

A sense of outrage was experienced in LMC practice when the midwives worked with women living in an environment where drugs, alcohol and physical abuse were a part of the woman's everyday experience. The values of care, respect and trust which defined how the midwives' provided their care were severely tested by what they saw and experienced.

Lizzy worked with clients from a wide variety of different socioeconomic lifestyles. In one particular incident her outrage was apparent as she talked about what had happened to a woman and baby she cared for. The woman, who lived with an abusive partner, had left the district and returned without letting Lizzy know and the baby was admitted to hospital. The woman had been traumatised to the point of being unable to respond to protect herself or her children. Lizzy describes what she found when she visited the woman and her baby who had been admitted to tertiary care:

And this baby was on it's death bed really...It was dry, it was dehydrated, it's eyes were rolling back into its head, it was jittering, having seizures, and it had massive bruising and it also had a big intracranial bleed inside. Once they had done all its tests it confirmed that it had obviously knocked against the wall or not well, anyway I went up, when I was up there baby had a hat on there was huge concern around the whole situation... And her mother

was there, the grandmother and she'd got quite close to me and she'd had a hard life... And she said to me Lizzy take that f'ing baby's hat off and have a look..I took baby's hat off and there were cigarette burns on it's head. She said what are those spots, you know what they are don't you Lizzy...

LMCs who provide care for women and their babies in violent relationships can carry an enormous emotional load; supporting clients who are unable to respond to the fear of abuse which dominates their lives. When LMCs work with women in violent relationships, and where there is physical assault and drug abuse, they are at grave risk themselves of becoming traumatised as they try to support and provide care for their clients and their clients' families/whanau.

For the midwives their values of trust, respect and honesty gave meaning to the negotiated boundaries of their professional relationships

A series of events which involved the care of a client with whom Anne had developed a close professional relationship contributed to Anne's decision to leave LMC practice. Anne had first met the woman at thirty-four weeks gestation, she described her client as being extremely big at 160 kilograms but she felt, despite her size, she was in good health and would birth well.

... she turned up at the Hospital saying that she couldn't feel the baby move... So they couldn't hear the heart beat at all, they certainly couldn't get a trace on the CTG... So then of course the scanner came in...it showed a heartbeat, so then there was a medic-lego way of working up there, the registrar on duty decided to do a VE. and ruptured her membranes with a one centimetre dilated cervix. And I think, no I know I became emotionally exhausted from my distress of seeing what had been done to her and could have been done differently with a bit more informed consent and decision making.

Anne related that there was no discussion with the woman, or Anne as her LMC, and that the birthing process was taken over by interventions which resulted in a caesarean section and possibly greater risk to the woman's safety. This midwife saw the safety and risks of this situation differently to the decisions that were being made by others, but she felt powerless to influence them. The care was out of her hands, but her emotional connectedness to this woman continued. She was distressed that no one appeared to be consulting this woman. The tension of this situation left her emotionally exhausted. For Anne, the anguish felt at the time, was still current in the telling of her story (Waters, 2008).

Anne continues this story:

So when the baby did come out, the baby was white, lifeless, and the doctor took the baby, and I sat and I looked and I thought I haven't got the energy for this anymore, I've done my dash,

In the midst of this overwhelming experience Anne knew she could not continue to do this anymore. She no longer had the energy. She felt devastated that this baby was so unwell. Everything about this situation, from her perspective, was horrible and she felt very unsupported. The only solution seemed to be to ensure she did not face such situations again. She began telling this story with the words "But perhaps the thing that finished me off with my LMC midwifery was when..." While she may have coped with other stressful encounters, when she got to this one she felt 'finished'.

The 'finished' feeling

Anne woke up one morning and told her husband she did not want to be an LMC anymore. She describes the meaning of that through her husband's eyes:

He was willing to move away from his job, his job security and everything, I think, so he didn't have to be living with someone who was doing a job she loved but was impacting on his sleep, and him wondering on the foggy night if I was in a layby, or getting swiped by a house being moved, or anything else. So we did that. And I didn't really know what I was going to do. Things have a way of working out

Finishing means putting a stop to exhaustion (for the partner as well), for the fear of the danger of travelling at night, especially when sleep deprived, and for all the other associated stress. Yet finishing also means facing a new mode of vulnerability. For this couple it meant moving away from the rural area so they could both get new employment, with no guarantee that would be easy. There was no ready-made plan to show the way ahead. There was simply trust that there would be a way. The most important thing was to 'finish'. Yet, how does one finish when one has a caseload of clients

to whom one is responsible, and perhaps midwifery partners dependent upon you for their back-up. It is not as simple as handing in one's resignation. Yet, these three midwives all knew that they could no longer afford to stay. In their own way they each took the hard, brave, heart-breaking, freeing step of leaving.

DISCUSSION

There is a danger in telling stories such as these in that confidence in the midwifery profession may be undermined. The stories of what seem to be less than ideal practice may be rare, or may have been told without recognition of other things that were going on for the seemingly unhelpful practitioners. But there is also a danger in not telling such stories. Unless midwives are free to be open about the kind of stress they carry and the emotional impact that has, then they will take the only road of escape, which is to leave. These three midwives exemplify the commitment, passion and high standards of responsibility that is expected and celebrated by the New Zealand midwifery profession. Yet, at times the burden of care becomes too heavy. These three stories are just three so cannot be generalised to the wider population of New Zealand LMC midwives. However this study does grow the understanding that we are accumulating about the challenges and needs of providing a continuity of carer model.

There are no easy answers. The answer surely is not to discontinue the model as the midwives clearly articulated how positive and fulfilling it could be. The midwifery service offered by LMCs in New Zealand is a unique women-centred model. Yet, perhaps as a profession midwives have been slow to recognise the price they were/are paying in not also recognising and putting strategies in place to support their own needs (Brodie, Warwick, Hastie, Smythe, & Young, 2008). When a midwife takes responsibility for the wellbeing of mother and baby, knowing things could unexpectedly go wrong at any time (Smythe, 1998) there is a burden of care. When, in the act of trying to provide safe care, colleagues, for whatever reason, are unsupportive, there is a burden of outrage. When one is in the midst of a situation where the outcomes have the possibility of being poor, there is a burden of worry, perhaps guilt, and a fear that goes on into future births. When the woman and baby who desperately need care do not accept that care, there is a burden of thwarted responsibility. When there have been too many days in a row with not enough sleep, there is a burden of exhaustion. Burdens added one by one eventually result in a heavy-laden midwife who says "I'm finished".

IMPLICATIONS FOR PRACTICE

The experiences described by the LMCs in their stories reveal the challenging, and at times fraught nature of LMC practice. The answer to

the challenges of LMC practice maybe for the profession to more actively explore strategies to support the ongoing practice of LMC midwives. The Midwife First Year of Practice programme has recognised that new graduate midwives require a formal mentorship to improve confidence and develop sustainable practice (Lennox, Skinner & Foureur, 2008).

Extending this service to one similar to that of professional supervision as provided for social workers and mental health workers may provide one such opportunity for the midwife to evaluate the challenges which confront her in LMC practice (Smythe & Young 2008). Such supportive supervision can assist the midwife to attend to her own emotional wellbeing in a safe, constructive environment with a skilled counsellor in order to sustain quality care.

It is also important for educational providers to recognise their responsibility in preparing students with a mindset that recognises the need for support to sustain their own well-being and to maintain safe practice. Student professional supervision in small groups with qualified tutors could assist students to recognise this supportive process of supervision. Self-care, the necessity of taking time out, and recognising when LMC practice is becoming unsustainable should be included as a significant aspect of LMC practice in undergraduate programmes. The sustainability of LMC practice is an important issue for the continuation of the midwifery service in New Zealand. Further research which describes the experiences of LMCs currently in practices of various durations would provide a greater understanding of sustainability.

CONCLUSION

This research tells the story of three midwives, each with her own unique story and life situation. The collective story is one of passion and commitment, yet the way each story ends suggests something was unsustainable. We argue that paradoxically it is the drive to offer women excellent midwifery care that can undo the well being of the midwife. Midwives can spend themselves until there is nothing left to give. It is a professional responsibility to ensure that personal wellbeing is maintained to nurture professional competence and energy. It is time for more storytelling, for more research, for more proactive strategies towards ensuring the robust health of the LMC midwives in New Zealand.

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Comment on the Evers et al., (2010). Perinatal mortality and severe morbidity in low and high risk term pregnancies in the Netherlands

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Midwifery practice in the primary setting has once again come under a critical lens. Evers et al. (2010) published the results of a prospective cohort study which investigated the association between perinatal mortality and maternity caregiver in the BMJ last November. The authors (who included four gynaecologists, a neonatologist, a paediatrician, an epidemiologist, a professor of obstetrics and a secondary care midwife) set out to compare the incidence of perinatal mortality and severe perinatal morbidity between low risk women who were cared for by a midwife in a primary setting and high risk women who received secondary care under the care of an obstetrician. Despite having a high standard of maternity care, the Netherlands have a higher than average perinatal mortality rate (11.4:1000 births) compared with the United Kingdom, Australia and New Zealand who have a perinatal mortality rate of approximately 10:1000 births (PMMRC, 2010).

The authors of this study wanted to establish whether the two tiered, primary and secondary maternity care system in the Netherlands was a contributing factor to the higher than average perinatal mortality rate. The main conclusion of the study was that the Dutch obstetric system (which is based on risk selection according to an 'obstetric indication' list) possibly contributed to a higher perinatal mortality. This conclusion was based on the findings that delivery related perinatal death was significantly higher for babies of women who had been classed as

low risk and were cared for by a midwife in a primary setting compared to women who had been classed as high risk and were cared for by an obstetrician in a secondary setting.

THE METHOD EMPLOYED FOR THIS STUDY

A prospective cohort study design was used. A prospective cohort study is one which selects a particular group of people who do not have the outcome of interest (in this case a perinatal death) and the investigators measure a variety of variables that might be relevant to the development of the outcome. Usually a prospective study follows people in the sample over a period of time to see whether they develop the outcome of interest, in this case, perinatal mortality (Mann, 2003). In this study Evers et al. (2010) collected data from the national perinatal database on all births over a two-year period (January 2007 to December 2008) in the Utrecht district in central Netherlands. Altogether data from 35,512 full term singleton and twin births were aggregated. Aggregating data typically involves capturing broad non-identifying information about a specific population from a database (in this case the national perinatal database) so that models or hypotheses can be tested about associations between variables on individuals.

In this study, antepartum and intrapartum stillbirths, and neonatal deaths (< 7 days) were identified from the data, and these adverse outcomes were related to whether the woman had been identified in pregnancy as low or high risk. Perinatal death (> 7 days < 28days) or admissions to a neonatal intensive care unit could not be linked to data from the perinatal data base. This was because data were collected without any identifying characteristics of the woman, the maternity caregiver or the hospital. With aggregated data, the effect of a variable (in this case the effect of primary or secondary care) on individual cases (in this case perinatal mortality) can be explored, but it is not possible to explore the effects of other variables such as characteristics of the individuals from whom the data were gathered. Therefore when using

aggregated data, researchers must take care when drawing inferences from a broad population about the effects on specific individuals (Jarjoura, 2003).

CRITIQUE OF THE METHOD

The strengths of the associations between variables when data are aggregated are important to report and can be useful for planning and exploring possible causes. In this study an association was found between the perinatal mortality rates when a woman was booked under a midwife compared to an obstetrician. When an association is found however, it might be an artefact of the aggregation rather than an indication of a causal link. Confounding biases that can affect any observational (non-experimental) study can be exaggerated by aggregation (Jarjoura, 2003). In addition, when only aggregated data are available, it is not possible to determine whether an observed association is due to a causal link at the individual level, or the context, or a combination of both. If researchers ignore these problems, mistaken interpretations of the association may be made. The terms ecologic bias and fallacy are commonly used to refer to

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such mistakes (ibid). Tuffnell (2010) cautions that a cohort study conducted using aggregated data, such as Evers et al. (2010), can only provide estimates of several conflicting maternal and neonatal outcomes.

There can be problems when a study is based on data that were acquired through an existing data base which was collected for another purpose. Using aggregated data from a national perinatal registry means that the information available to the researchers is only as good as the data that were collected by the registry. Questions such as how robust were the collection methods and how robust was the data entry are raised and are unable to be answered. For this study, data from 87 births (0.2%) were missing. When the number of perinatal deaths are statistically so small a 0.2% loss could be significant. The Utrecht region chosen for the data collection made up a sample that was only 13% of the total Netherlands population. It is yet to be determined if the results from Evers et al., (2010) a) are interpreted correctly and b) are results transferable to other regions within the Netherlands. Until such clarifications are made, the findings from the Evers et al., (2010) study are not able to be generalised to the entire Dutch population, or for that matter to other countries such as New Zealand.

FINDINGS OF THE STUDY

The study included 37,735 normally formed infants from 37 weeks gestation. The findings from the study included 60 antepartum stillbirths (37 in primary care and 23 in secondary care), 22 intrapartum stillbirths and 210 Neonatal Intensive Care Unit (NICU) admissions, of these 17 infants died. NICU admission rates did not differ between babies of women cared for by an obstetrician or midwife. The overall perinatal death rate was significantly higher for nulliparous women as compared with multiparous women (RR 1.65 95% CI 1.11-2.45). When Evers

et al. (2010) analysed the data they found that infants of low risk women under the care of a midwife in the Netherlands had a significantly higher risk of intrapartum related perinatal death than high risk women under the supervision of an obstetrician (relative risk 2.33, 95% confidence interval 1.12 to 4.83). Furthermore, the authors found that infants of low risk pregnant women who started labour in primary care had a higher risk of delivery related perinatal death than infants of high risk pregnant women who started labour in secondary care (relative risk 2.33, 1.12-4.83). The higher mortality among infants of women who were referred from primary care to secondary care during labour because of an apparent complication is concerning. The authors concluded that risk assessment may have been inadequate, and suggest the difference in outcome may be because women were inappropriately considered low risk and booked for labour care under a midwife.

CRITIQUE OF THE FINDINGS

In this study, women had a 3.66 times higher risk of delivery related perinatal death of their baby if referred from a midwife to

time to transport the woman to secondary services then an adverse outcome would be more likely. The lessons from Ravelli et al. (2011) are to rectify delays in identification and transfer as opposed to recommending that all women commence labour in high risk settings. Readers need to critique studies scrupulously to analyse whether time delays occurred once women were transferred into large obstetric hospitals.

Evers et al. (2010) acknowledged that if a woman was transferred from primary care to secondary, the obstetrician sometimes underestimated the problem because the woman was referred as a low risk patient. In our opinion, this is a very pertinent point. Dutch health professionals have the indications for referral laid out in an "obstetric indication list" (ibid, p. 2) which is used to determine whether a woman is low or high risk, and whether there are indications for referral to an obstetrician. Approximately 29% (5492/18686) of women were referred during labour to secondary care according to indications for referral. We could assume that women who were referred to secondary care during labour for either fetal or maternal complications by primary care

The inclusion of low risk in the high risk group can be called to question, because that result could have altered the conclusion

an obstetrician during labour. Gottvall, Grunewald, & Waldenström (2004) also concluded from their Swedish study that intrapartum death rates were higher in babies of mothers who commenced labour in birth centres. However, Gottvall et al. (2004) failed to acknowledge that some women who had intrapartum fetal deaths had been under obstetrician care for many hours prior to the delivery. Walsh (2004) critiqued the Gottvall et al. (2004) study and warned against complacency toward women transferred from primary maternity care as in one case of perinatal death the care was suboptimal after transfer not before. Clearly if there was a delay in the identification of fetal distress then the baby could be compromised. Ravelli et al. (2011) unsurprisingly found an apparent association between the time taken to transfer from home to secondary services and mortality or adverse outcomes. Therefore if delay occurred either identifying fetal distress or a prolonged

midwives could be expected to be a more high risk group for perinatal mortality, and their referral to secondary care was in fact necessary and timely.

The authors of this study stratified the data into women who started labour in primary care and those who started labour in secondary care. The incidence of delivery related death was calculated according to where labour had started. Pop and Wijnen (2010) pointed out that in the Evers et al. (2010) data, 8% of all women who delivered in secondary care were actually low risk thus reducing the 'risk' status for the so called high risk group. In our opinion the inclusion of low risk in the high risk group can be called to question, because that result could have altered the conclusions.

The findings of this study are concerning for women and midwives in the Netherlands and for us here in New Zealand, where a similar primary/secondary maternity system exists.

It is very hard for any study to compare the risks associated with birth in different settings because of confounding factors inherent in data

We need to ask how did the authors come to this conclusion, and can we extrapolate the findings from this study to the New Zealand setting? One important difference between the Netherlands and New Zealand midwifery practice relates to midwifery care in labour. In the Netherlands maternity assistants often care for women in labour at home, calling the midwife when the birth is close. As Evers et al. (2010) state "a midwife is not always present during the first stage of labor and fetal heart beats are often only checked every two to four hours" (p.7). Benjamin, Walsh, and Taub (2001) compared birth outcomes for women who had continuous care from a midwife with those who received fragmented midwifery care. They found that women who had midwife-led care had a lower birth intervention rate, a higher normal birth rate and fewer babies with an Apgar score of less than 6.

CONCLUSION

It is very hard for any study to compare the risks associated with birth in different settings because of confounding factors inherent in data. Confounding factors include differences in the definition of low and high risk, the intended or actual place of birth, demographics of the women in the study group and differences in standards of maternity care and midwifery practice. It was not possible to control for confounders or factors other than the variables under examination and therefore results can be distorted. In such situations any associations and conclusions are spurious. Evers et al. (2010) acknowledge that an important limitation of their study is that aggregated data from a large birth registry database were used, and adjustment for confounding variables such as low socioeconomic status or higher age was not possible.

What can we learn from this study in relation to birth in New Zealand? Firstly, serious adverse events in labour are uncommon in any setting. The intrapartum stillbirth rate in New Zealand was 4.5:1000 in 2008 (PMMRC, 2010). It is of course of utmost importance for all involved in maternity care to investigate perinatal outcomes, but in our view the investigation needs to focus on facts and not focus on home versus hospital, and midwife versus obstetrician debate. In their recent study Hastie and Fahy (2011) argue that 'turf wars' between maternity care providers need to be replaced by changing organisational structures and policies that would facilitate optimal dialogue between all professionals involved.

Other studies that have compared perinatal outcomes with caregiver have found findings which contradict those of Evers et al. (2010). Another cohort study in the Netherlands of over 500,000 women (de Jonge et al., 2009) found that planning a home birth did not increase the risks of perinatal mortality among low risk women providing midwives were well trained and there was a good transportation and referral system. Evers et al. (2010) concurred with some of de Jonge et al.'s (2009) recommendations including the need to minimise adverse outcomes by early recognition of complications of pregnancy or labour so that consultation or referral can happen in a timely manner. Purposeful woman-centred midwifery care throughout labour will aid early recognition of complications. When referral or transfer from primary to secondary care is needed, it needs to be made in a timely manner, and communication between primary and secondary services needs to be clear in order that appropriate action is taken and the best outcomes achieved as Hastie and Fahy (2011) demonstrated.

Another prospective cohort study (Cragin & Kennedy, 2006) followed 375 American women through their pregnancies and birth. The outcomes for those cared for by midwives, and those cared for by obstetricians were compared. Cragin and Kennedy (2006) found that women cared for by midwives had less use of technology and intervention with NO difference in neonatal outcomes, even when pre-existing conditions were taken into account. Results from the planned place of birth in New Zealand (Davis et al., 2011) study from the MMPO database indicate that perinatal outcomes are favourable for babies of women who planned homebirth or birth in primary birthing units under the care of a midwife.

It is concerning that two articles (Evers et al., 2010; Wax et al., 2010) have recently been published in influential journals and point to a higher risk of perinatal mortality for babies born in primary settings. Wax et al. (2010) has been previously reviewed and critiqued in this Journal (Crowther, Gilkison, & Hunter, 2010). Studies such as Evers et al. (2010) can be used

to influence maternity policy and practice so it is crucial that midwives continue to critique research so that we can respond to moves to alter policy and practice, but - most importantly - to respond to women's concerns.

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BOOK REVIEW

Giving breastmilk. Body ethics and contemporary breastfeeding practice

(2010)

Editors:

- Rhonda Stewart and Alison Bartlett
- Publisher: Demeter Press: Toronto, Canada
- ISBN 978-9866671-0-7

Reviewed by Dr Cheryl Benn

RM, MCur(Midwifery),

DCur(Midwifery), IBCLC.

LMC Midwife, Lactation Consultant

A number of innovative opportunities are now available to learn about breastfeeding from an international community of academics, researchers, practitioners and authors – the Gold online conferences being one and this book another. The editors selected the topics for this book after the call for abstracts generated over 50 submissions. The book is divided into 4 sections titled Making milk, Sharing milk, Milk politics and Milk theory. The aim of this book is to stimulate thinking about breastmilk and breastfeeding in relation to ethics, knowledge, philosophy and politics and their effect on practice. It is not a how-to book, but certainly a book that will challenge thinking on ideas that might have become an entrenched part of practice, especially medicalised practice. It

is a book that a reader can pick up and read a section at a time. Time is needed to digest and think about the ideas presented in each chapter as they do not necessarily relate to a western cultural context. The research presented comes from developing and developed countries and highlights issues of cross cultural significance.

I personally found this book stimulating and a great source of inspiration for research topics. The variety of chapters presenting different aspects related to topic areas such as human milk banking, for example, were thought provoking both ethically as well as epistemologically, and historically and culturally contextualised the fall and rise of human milk as a valued life-giving food.



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The NZCOM Journal is published in April and October each year. It focuses on midwifery issues and has a readership of midwives and other people involved in pregnancy and childbearing, both in New Zealand and overseas. The Journal welcomes original articles, which have not previously been published in any form. In general, articles should be between 500-4000 words.

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Articles should be written with double spacing and a left margin of 3 cm. Authors should use section headings and label any diagrams or tables which are included. Diagrams, tables or photographs should be supplied as computer generated items. The word count for the article should be stated. Articles should be supplied as an electronic copy in a WORD document or RTF file. All articles should have an abstract of 100 words maximum.

In addition, authors are requested to provide the following details on a separate file which is not sent to the reviewers. Name, occupation (current area of practice/expertise), qualifications, address for correspondence during the review process including day time phone number, contact details such as email address which can be published if the journal accepts the article. Where the article is co-authored, these details should be provided for all authors. ALL authors of the article should state in an accompanying letter that they wish to submit it for publication.

SUBMISSION

Articles should be submitted electronically via email to joan.skinner@vuw.ac.nz

CONTENT

Any article, which reports a piece of research, needs to note the processes undertaken for ethical approval.

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Authors are responsible for providing accurate and complete references. The Journal uses the American Psychological Association (APA) format. Some details of this format are available on the APA website at www.apastyle.org. The 5th edition of the APA Publication Manual was published in 2001. In the text, authors' names are followed by the date of publication such as "Bain (1999) noted" or "this was an issue in Irish midwifery practice (Mary, 2000)". Where there are three or more authors, all the names should appear in the first citation such as "(Stoddart, Mews, Neill and Finn, 2001)" and then the abbreviation "(Stoddart et al., 2000)" can be used. Where there are more than 6 authors then "et al." can be used throughout.

The reference list at the end of the article should contain a complete alphabetical list of all citations in the article. It is the responsibility of the author to ensure that the reference list is complete.

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Book

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Venue: Quality Hotel Plymouth International New Plymouth, New Zealand



Programme

THURSDAY 4th AUGUST 2011

TIME	TOPIC	SPEAKERS
0800	Registration opens	
0900	Whakatau	
0915	SESSION 1 Integrating neurophysiology and the emotions of labour and birth: Results of a feminist standpoint exploration of the women's perspectives of labour progress The culture of keeping birth normal Insights related to the experience of being actively involved in seeking to reduce maternal mortality in the developing world	Lesley Dixon Jackie Gunn & Sally Wilson Kate Heard
1030	Morning Tea	
1100	SESSION 2 Evidence into practice: The implementation of customized birth weight centiles at one NZ District Health Board An exploration of the pedagogical approaches to teaching and learning midwifery in Aotearoa, New Zealand A time to be born — an exploration of one midwife's practice	Malia Lardelli Andrea Gilkinson Maggie Banks
1230	Lunch	
1330	SESSION 3 Introducing Bourdieu to understand change in midwifery practice Midwifery in a multi disciplinary primary health care service: a unique model of care Recognising burnout The promotion of physiological birth from an employed case loading perspective in remote rural setting	Heather Donald Siobhan Connor Carolyn Young Robyn McDougal & Katherine Hall
1500	Afternoon Tea	
1530	SESSION 4 Two Red Buckets: placental birth yesterday and today Discerning which qualitative approach fits best Birth outcomes for nulliparous women labouring in primary units in South Auckland 2004 - 2007 Cochrane reviews — a contributing puzzle piece to evidenced base information	Jane Stojanovic Liz Smythe Debra Fenton Ruth Martis
1700	Close of Day One	
Evening	Evening Function	



Additional Information

For further information on the evening function, venue and accommodation, please refer to the NZCOM website: www.midwife.org.nz, and click on the JDMRC logo.

FRIDAY 5th AUGUST 2011

TIME	TOPIC	SPEAKERS
0830	Registration opens	
0900	SESSION 5 "Be safe and cover yourself". The inconsistencies in choices, interpretation and documentation of fetal monitoring The experiences of midwives working with third year midwifery students Trauma associated with a Breach of Relational Trust	Robyn Maude Liz James Irene Calvert
1015	Morning Tea	
1045	SESSION 6 Disparities in maternal care When motherhood beckons: an exploration of the transition to motherhood for HIV positive women Does confidence, practice experience and clinical characteristics influence midwives decision making of suturing or non-suturing of spontaneous perineal tears?	Charrissa Makowharemahih Amanda Hinks Elaine Gray
1200 - 1230	Closing Address	



Registration Fees

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