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PLACENTAL BIRTH: A HISTORY

By

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the degree of Doctor of Philosophy in Midwifery.

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Abstract

This mixed method historical research uses both written material and topical oral history interviews with medical and midwifery practitioners, to offer a signal contribution to midwifery knowledge. It fills a void in midwifery history concerning the management of the birth of the placenta. Because placental birth is not a discrete entity but is part of the birth continuum, the research has also contributed to the historical knowledge of birth in seventeenth and eighteenth century Britain and Europe and Maori birthing prior to European settlement. It also illuminates birthing practices and their contexts for both Maori and European from the early nineteenth century to the present day.

In the early years of the twentieth century a 'cause and effect' cycle of three synergistic and catalytic factors, medicalisation, hospitalisation and nursification produced clinical and political changes that created a weave into which changes to the management of the birth of the placenta could be woven.

It took time for modern midwives practising alternative birthing to unlearn their medicalised training and regain their trust in women's ability to birth. The reintroduction of midwifery autonomy and the passing of legislation concerning consumer choice and consent in health care facilitated the introduction of alternative midwifery practices into hospitals, exposing more midwives and doctors to physiological placental birth.

A theoretical model based on comparative obstetrics and reproductive physiology was used to analyse the management of placental birth over time, and in the varying contexts studied. This model is offered as a tool for clinical decision-making, and for educating women and maternity practitioners in facilitating the birth of the placenta.

This New Zealand research supports the use of physiological placental birth, in well women having normal pregnancies and labours, as safe and beneficial to women and their babies.

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This thesis is dedicated to all women who have suffered complications birthing the placenta.

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Glossary

General Glossary

accoucheur.....	birth attendant – usually midwife or doctor, pertains to the woman lying on a bed.
afterbirth, after-burden.....	lay terms for placenta and membranes
amniotic fluid.....	the ‘waters’ surrounding the baby in the womb
atony, atonic (adj.).....	without muscle tone – the muscles not contracting efficiently
boken.....	vomit (archaic)
breech birth.....	baby being born with buttocks or feet presenting first, rather than the normal ‘head first’ birth.
caule.....	term for the membranes surrounding the baby and the amniotic fluid in womb
crotchet.....	hook used to extract a dead baby from the womb.
flooding.....	haemorrhage
inertia.....	inactive – muscles remaining at rest, not contracting.
inverted.....	turned ‘inside out’
pains.....	uterine contractions
uterus.....	womb
funis.....	umbilical cord
foetid.....	bad-smelling
liquor amnii.....	amniotic fluid
lochia.....	vaginal discharge following birth
malpresentation.....	also termed ‘cross-birth’ – a baby lying in the uterus in an abnormal position that could prevent it from being born successfully
manual extraction or removal.....	using the hand to part the placenta from the uterine wall and to remove it from the uterus
menarche.....	The onset of menstruation
navel.....	umbilicus
navel string.....	umbilical cord
puerperal sepsis.....	childbirth fever, uterine infection

putrid.....	rotten
rachitic.....	suffering from the deficiency disease Ricketts
secundine.....	name for placenta and membranes (archaic)
sepsis.....	Infection
supine.....	lying flat on back - recumbent
swaddling.....	wrapping or bandaging a baby tightly
Thrombosis(es).....	blood clots within the blood vessels
turgescence.....	filled with blood making less tissue flexible
uterine inversion.....	womb turned 'inside out'
vascular.....	pertaining to the blood vessels, veins, arteries or capillaries.

Glossary of Maori Words

Note: Many Maori words have different levels and nuances of meaning and are not easily translatable to English. This glossary has been kept very simple. Meanings as close as possible to those required by the context of the thesis have been used.

<i>Aotearoa</i>	Maori name for New Zealand, 'the land of the long white cloud'
<i>Arawa</i>	a North Island Iwi
<i>aroha</i>	love, empathy
<i>ewe</i>	umbilical cord
<i>epuwhenua</i>	container for the whenua
<i>hapu</i>	sub-tribe(s)
<i>Hinauri</i> or <i>Hine</i>	the demigod Maui's sister.
<i>Hineteiwaiwa</i>	another name for <i>Hinauri</i> or <i>Hine</i>
<i>iho</i>	part of the umbilical cord
<i>karakia</i>	incantation, chant, prayer(s)
<i>kainga</i>	settlement, group of houses(es)

<i>kohanga</i>	nurture, nest(s)
<i>kuia</i>	respected older woman/women
<i>Kupe</i>	A Polynesian seafarer said to have discovered and named Aotearoa
<i>makahakaha</i>	coastal plant
<i>makatu</i>	sorcery
<i>mana</i>	power, standing, reputation
<i>marae</i>	Māori community facilities that usually include a carved meeting house and a sacred space in front of the meeting house. Marae also are symbols of tribal identity and places of ‘belonging’.
<i>Maui</i>	the demigod that ‘fished up’ the North Island
<i>mauri</i>	life-force
<i>moko/mokopuna</i>	descendants, grandchildren
<i>pa</i>	defensive fortification(s)
<i>pakeha</i>	person(s) of European descent
<i>parapara</i>	blood and blood clots
<i>pito</i>	the maternal end of the umbilical cord
<i>rangitira</i>	leader, chief(s)
<i>raupo</i>	a plant that provided leaves used in building
<i>tangata</i>	people
<i>tangata whenua</i>	people of the land
<i>tangihanga</i>	funeral(s)
<i>tapu</i>	sacred,
<i>tairo</i>	thorny obstructions
<i>Te Waipounamu</i>	the South Island

<i>tikanga</i>	protocols, knowledge of
<i>titoki</i>	a tree (<i>Alectryon excelsus</i>)
<i>tohunga</i>	expert(s)
<i>Tuhoe</i>	a North Island Iwi
<i>u</i>	breast(s)
<i>urupa</i>	burial ground(s)
<i>wai</i>	water, fluid, health, wellbeing.
<i>wai u</i>	breast milk
<i>whakawhanau</i>	childbearing, birth(s)
<i>whanau</i>	family(ies)
<i>whare</i>	house(s)
<i>whare kohanga</i>	nest house(s)
<i>whare tangata</i>	the womb (house of the people)
<i>whenua</i>	land, earth, placenta(s)

List of Abbreviations

AIMS	Association for Improvement to Maternity
AJHR	Appendices to the Journal of the House of Representatives
BMA	British Medical Association
CEO	Chief Executive Officer
DHB	District Health Board
FIGO	International Federation of Gynaecologists and Obstetricians
GP	General Practitioner
ICM	International Confederation of Midwives
IM	Intramuscular
IV	Intravenous
LMC	Lead Maternity Carer

MA	Master of Arts
MMPO	Midwifery and Maternity Providers Organisation
NZ	New Zealand
NZMA	New Zealand Medical Association
NZNA	New Zealand Nurses Organisation
NZCOM	New Zealand College of Midwives
PPH	Postpartum haemorrhage
RANZCOG	Royal Australian and New Zealand College of Obstetricians and Gynaecologists
RCT	Randomised controlled trial
WHO	World Health Organisation

Preface: Two Red Buckets

At a midwifery gathering, possibly a New Zealand Nurses' Conference, circa 1986, I met a midwife. She whispered to me while we were in the toilets, "I'm using a red bucket for the placenta." I said, whispering too so any other nurses or midwives wouldn't hear, "What? How do you use a red bucket?"
"I get them to sit on it."
"What do you mean? Sit on it?"
"They sit on it and you do nothing! Sometimes you get the baby to suckle!"
That was when I realised there was another way.¹

This story from Ruth, illustrates the challenge and anxiety that was, and still is, associated with practising midwifery differently. Her story reminded me of how much courage was required from the domiciliary midwives, and the doctors who supported them, to practice contrary to the hospital norms after homebirth re-emerged in the 1970s.² It also reminded me of another red bucket.

Two Births

In 1991 I attended a birth in a small Aotearoa New Zealand town. A midwife colleague asked me to attend as she was at another birth. "You won't get there in time for the birth," she said, "They always call too late, but they want you there 'just in case'. They don't want you to interfere, just ask them what they want you to do." Thinking that this was rather unusual, I nevertheless dutifully attended the birth. On arrival I saw that the baby was indeed born. Mother was sitting on a mattress on the lounge floor surrounded by her children and helpers, happily breastfeeding her baby. After exchanging greetings, I learned that the placenta had not arrived, but this was not a concern, could I please go into the kitchen and have a cup of tea with 'Aunty'. With some misgivings, I went, reminding myself that all was normal. I was in the kitchen for quite some time, now and again popping out to check that mother and baby were pink and healthy looking. After an hour, the parents decided they would cut the umbilical cord and that I could check the baby. After doing so, I tentatively suggested that as the placenta had not yet been born, the woman

¹ R. Martis, Personal Communication, Auckland, 2008.

² M. Banks, Unpublished PhD Thesis, Out on a limb: the personal mandate to practise midwifery by midwives of the Domiciliary Midwives Society of New Zealand (Incorporated), 1974-1986, Victoria University of Wellington, Wellington, 2007.

might like to try sitting on the toilet with a receptacle inside it as sometimes that could help the placenta to come. I then returned to 'Aunty' in the kitchen. A few minutes later the couple walked past the kitchen door on their way to the toilet, armed with a red plastic bucket. Another few minutes had passed when they returned, placenta and membranes nestled in the bucket. It was now at least an hour and a half since the birth of baby so I was happy to see the afterbirth.

There had been no fuss, no drama, a normal healthy birth in the privacy of their home. This was how this Maori family preferred to birth. Their confidence in their ability to birth a child naturally, gave them the strength to remain in control of the event. I drove the twenty kilometres home feeling that I had been part of something quietly dignified and special, and reflecting on how difficult and yet fulfilling it had been to stand back and not 'take over'.

Within twenty-four hours I attended another birth. This was also a Maori woman birthing, but this time in the small maternity hospital in a different town. The woman was on her back on the birthing bed, and I was the sole midwife on duty with a hospital aide to help me. The General Practitioner who was looking after the woman was on his way but the baby decided to be born before his arrival, quite normally. I gave the routine intramuscular injection of syntocinon straight after the birth of the baby. Gentle controlled umbilical cord traction was commenced but the thin cord avulsed from the placenta with the first moment of applied tension, just as the doctor came in the door. I asked him whether I could put the woman onto a bedpan to help her to expel the placenta. There was no bleeding and the woman was quite well. "No", he said, "we have to get it out before the cervix clamps down". He put on sterile gloves and without further ado proceeded to manually remove the placenta before I even had time to give the woman some Entonox³ to reduce her pain.

The woman looked shocked and began to bleed. An intravenous line was hurriedly inserted and intravenous ergometrine was given. The uterine fundus was massaged and the bleeding stopped. The woman thanked the doctor for his care, and the doctor thanked me for my help before he left. I felt as though the woman had been raped, although by a very caring and well-intentioned doctor who believed that what he had done was absolutely necessary. There was an immediate

³ A mixture of nitrous oxide and oxygen used for inhalational analgesia.

'gut feeling' of wrongness about what had occurred, although the woman was happy, grateful that she had been 'saved'. I had been exposed to this style of management before, perhaps not as dramatically, and had in the past accepted it as a necessary evil.

Reflection on practice

The huge disparity between the two births gave me much cause for reflection. I thought that had I not pulled on the cord there may not have been such a dramatic, painful and shocking experience for the woman. Although I had been trained to actively manage the birth of the placenta and had routinely done so for the previous twelve years, I remembered the feelings of revulsion I had when I first saw a managed placental birth as a young student nurse. I remembered that I had then wondered why, if a woman could expel a baby, she could not also expel her placenta. I had always been told that the medical approach was the safest, but there did not appear to be any actual explanation as to why and how the medical approach had come about and why it was considered the safest method of care. I had heard older midwives saying that doctors had needed to find a way of speeding up the birth of the placenta because it took too long, and that doctors didn't have the patience (or the time) to wait for nature to take its course. I wondered whether there was an element of truth in that story. I reflected that much practice that we had accepted as routine and necessary had been shown to be unnecessary, for example, enemas and genital shaves, routine episiotomies and the highly managed 'deliveries' of babies where pressure was exerted to flex the baby's head during the birth.

Placental birth, naturally

As a result of these two experiences, over the next decade while practising in hospital, in a birthing unit and at homebirths, I became interested in the differences between the two methods of managing placental birth. As a practising independent midwife, caring for my own clients, I offered women the choice of active management or physiological birth of the placenta and advised women according to their clinical needs. Many of the hospital midwives found it difficult when I used the physiological approach in hospital. They considered it to be unsafe. I was supported by the women requesting it, and by other like-minded midwives, usually those who practised homebirth.

Botha's comments, written in the 1960s about the African Bantu came to my attention.⁴ He wrote that the women birthed in a squatting position and did not touch the umbilical cord until after the birth of the placenta. He stated that these women very rarely suffered from retained placenta or postpartum haemorrhage (PPH). I, and other midwives, responded to this information by incorporating into our practice the idea of not clamping or cutting the cord. We discovered that by doing this we gave the woman uninterrupted time with her baby, and found that it was quite easy to get the cord blood from the placental surface later if blood from the umbilical cord was required for testing. We saw the benefits to the mother of her getting to know her baby immediately without the interruption of the managed birth of the placenta, My colleagues and I came to prefer the more peaceful and naturally progressed birth.

We learned by trial and error. We learned that the best way to facilitate the natural birth of the placenta was to leave the baby and the mother to get to know each other without interference. I learned, against all my training, to take my gloves off following the birth of the baby. This was so that I would not 'fiddle' with the cord trying to see if the placenta had separated. The stance chosen was of relaxed but watchful unobtrusiveness. I had learned from Michel Odent and Joan Donley, and from older midwives earlier in my career, that fear and anxiety are the "enemies of normal birthing."⁵ I decided that midwives had to be careful not to portray anxiety during a physiological placental birth or if bleeding occurred. Reading Buckley some years later confirmed this and helped me to understand the underlying hormonal dynamics.⁶

With the rush and bustle and clinical imperatives of a busy hospital, facilitating the woman's hormonal and physiological responses can be forgotten. Yet supporting women's physiology has the potential to reduce PPH, and to lessen the amount of blood loss experienced by women. When circumstances prevent the facilitation of normal birth and do not support the woman's own

⁴ M. Botha, The management of the umbilical cord in labour, *South African Journal of Obstetrics and Gynaecology*, Vol. 6, 1968, pp. 30 – 33.

⁵ J. Donley, in Auckland Homebirth Association, Welcome Home Birth Video, Auckland, 1989.

⁶ S. Buckley, *Gentle Birth, Gentle Mothering*, One Moon Press, Brisbane, 2005; S. Buckley, Undisturbed birth – nature's blueprint for safety, ease and ecstasy, *MIDIRS Midwifery Digest*, Vol. 14, No.2, 2004, pp. 203-209; S. Buckley, Labour and birth, What disturbs birth?, *MIDIRS Midwifery Digest*, Vol. 14 No. 3, 2004, pp. 353-359.

hormonal processes, then the active medical method of birthing the placenta has an unquestioned role in reducing haemorrhage.

Thesis Structure

The thesis is structured in three parts. The first part is composed of Chapters One and Two. This section provides contextual and methodological background to the current study. Chapter One relates how the topic came to be chosen. The impetus for the research stemmed from reflection on midwifery practice, and midwifery philosophy. The chapter identifies the research question and its subsidiary questions and discusses how they were formulated. The maternity context for the study is described and the aims of the research toward improving midwifery knowledge and interdisciplinary understanding are stated. The relationship of this historical research to current epistemological debate is elaborated. The chapter finishes with a review of literature, touching on issues of professionalisation and gender, but mostly concerned with the management of the third stage of labour, establishing that the current research has not been undertaken previously.

Chapter Two details how the study was planned and carried out. It is a mixed method study using historical inquiry to locate and examine the written material sources with the addition of topical oral history interviews as an integral element. The search for data including the location and selection of written material sources is related. How the oral history portion of the research was planned and executed is explained with emphasis on the ethical considerations, and the selection and interviewing of the participants. A theoretical model for data analysis was developed from theories elicited from comparative obstetrics and research into hormonal reproductive processes. The model utilises those theoretical factors that support and facilitate physiological birth combined with factors long recognised in midwifery practice as influencing placental birth.

The second part is comprised of Chapters Three, Chapter Four and Chapter Five, and answers the subsidiary research question: *What was the foundational knowledge of placental birth in New Zealand in the eighteenth and nineteenth centuries?* Primary and secondary texts are used to identify and describe the knowledge and practices within their contexts. These are analysed using the lens provided by the theoretical model, as developed in Chapter Two.

Chapter Three outlines medical epistemology in the seventeenth and eighteenth centuries; it identifies and describes the birthing knowledge and practices that came to New Zealand with the early settlers, the majority of whom were British. Two knowledge streams are identified; traditional women's midwifery practice and 'man-midwifery' which was rising in popularity and was to become firstly 'medical midwifery' and then the discipline of obstetrics.

Chapter Four traces the medical management of the birth of the placenta through the nineteenth century. Textbooks from Britain and America guided medical practice in New Zealand. These books accompanied their owners to their new country, or were imported by practitioners. The books and articles from professional journals yield insights into medical thought, experimentation and changes in medical maternity practice over the century.

Chapter Five is concerned with contexts, major influences and actual birthing practices including changing patterns of maternal mortality, in eighteenth and nineteenth century New Zealand, for Maori, and for European settler women. The third foundational knowledge stream, Maori birthing knowledge and practices prior to European settlement are identified and analysed. European settlement changed the contexts in which birthing for European and for Maori occurred. The strengthening influence of medical midwifery is demonstrated in a case study of a complicated birth. Both Maori and European women suffered social and cultural dislocation and had to adapt their birthing practices to their 'new world'. Maori were severely affected by colonisation, but both groups' birthing practices were changed and adapted to their new environments.

Part Three, comprised of Chapters Six, Seven, Eight and Nine answers the second subsidiary question: *What factors changed the foundational knowledge to create the practices that are used in today's world?* This section is concerned with the evolution of the management of the birth of the placenta from the beginning of the twentieth century. The chapters are informed by medical and midwifery textbooks, articles from professional journals, case records, and also by the testimonies from the oral history interviews with maternity practitioners.

Chapter Six begins in 1900, a natural starting point that follows the precedent of previous chapters. Using textual sources the chapter shows that medical men were educating the midwives into the 'medical' midwifery model of care, so by the beginning of the twentieth century books for

midwives were being written either by doctors or doctor-midwife combinations. It outlines how the medical profession regulated and increasingly controlled midwifery, and hospitalised and medicalised birthing, while they 'controlled' the uterus with the help of ergot and pituitary extract.

The development and universal adoption of the prophylactic use of active management of the third stage of labour are discussed in Chapter Seven. It analyses the change from the use of observation and patience by the accoucheur to practitioners actively managing the birth of the placenta, a process that was dependent on the availability of reliable and effective uterotonic drugs. It describes how these became available at a time when medicine was making great strides in its ability to cure and prevent disease; a climate in which the use of these drugs was readily accepted. The medicalisation and hospitalisation of birth, the subordination of midwifery, clinical practice and the use of the new uterotonic drugs, intertwine in the story of how active management of the birth of the placenta became so embedded into birthing that by the 1970s it was regarded by many practitioners as 'normal'.

Chapter Eight details the re-emergence of physiological placental birth. The chapter outlines the practices, and analyses the contexts for the re-emergence of physiological placental birth as an option for women. Beginning with the increasing demand from women for homebirths, it describes the socio-political environment that supported midwives to offer alternative childbirth practices, even within those 'bastions of medical power', the hospitals.

An overview of the midwifery and medical experiences and opinions that were expressed by the participants is provided in Chapter Nine. The first section relates to the demographics of the participants, while the sections that follow examine the answers to the interview questions. Material that was extraneous to the interview guideline but relevant to the current study is also considered. Themes identified from the commonalities and differences in the oral data were analysed, and are presented as the last section of the chapter. Practitioners' ideas and thoughts about the management of placental birth and their experiences with it are the main focus of the chapter. The Conclusion, where the thesis findings are presented and argued, completes the thesis, and is followed by the Bibliography and Appendices.

Chapter One: Placental Birth

Introduction

There is an assumption, by a large majority of maternity practitioners, both medical and midwifery, that the birth of the placenta (also called the third stage of labour) is safer when 'actively managed' using medical techniques. When it is considered that placentation in mammals occurred over 140 million years ago,⁷ it could be speculated that nature has had time to perfect the physiological process; why then is there the perception that the process is faulty and needs intervention to make it safer?⁸ Are modern women inefficient at childbearing or is it possible, as writers such as Inch,⁹ Odent,¹⁰ and Buckley¹¹ suggest, that there are external variables in the modern maternity environment that confound the natural process? This research examines medical and midwifery management of the birth of the placenta from an historical perspective. The first part of the thesis is composed of Chapters One and Two.

Chapter One: 'Placental Birth' is concerned with the contextual background which relates how and why the topic came to be chosen. Chapter Two: 'Capturing the Past, Method and Methodology', outlines the methodological background for the study, detailing how the study was planned and executed. The theoretical model that is used for data analysis over time and changing contexts is introduced in Chapter Two. These two chapters constitute the methodological section of the thesis.

Chapter One relates how the topic came to be chosen. The impetus for the research stemmed from reflection on midwifery practice, and midwifery philosophy. The chapter identifies the

⁷ R. Dawkins, *The Ancestor's Tale: A Pilgrimage to the Dawn of Life*, Phoenix, London, 2005.

⁸ Postpartum haemorrhage is rare in animals, G. Kirker, Veterinary Surgeon, Otaki, personal communication, July, 2008.

⁹ S. Inch, Management of the third stage of labour- another cascade of intervention? *Midwifery*, Vol. 1, No. 2, 1985, pp. 114-122.

¹⁰ M. Odent, Don't manage the third stage of labour! In S. Wickham, (Ed.), *Midwifery: Best Practice*, Books for Midwives, London, 2003.

¹¹ S. Buckley, *Gentle Birth, Gentle Mothering*, One Moon Press, Brisbane, 2005; Buckley, S., Labour and birth, What disturbs birth?, 2004; S. Buckley, Undisturbed birth – nature's blueprint, 2004.

research question and its subsidiary questions and discusses how they were formulated. The maternity context for the study is described and the aims of the research toward improving midwifery knowledge and interdisciplinary understanding are stated. The relationship of this historical research to current epistemological debate is elaborated. The chapter finishes with a review of literature concerned with the management of the third stage of labour, establishing that the current research has not been undertaken previously.

Active management and physiological birth

There are currently two primary methods of facilitating the birth of the placenta. The first, and most common in Aotearoa New Zealand and other developed countries, is the active management of third stage. A commonly used convenient name for the time between the birth of the baby until the placenta and its membranes have been born, the artefact 'third stage of labour' is part of the physiological continuum of birth. Active management of the third stage of labour involves the practitioner intervening to hasten the placental birth process because the medical view is that if the third stage is completed quickly then the mother's blood-loss will be minimized, with less likelihood of postpartum haemorrhage (PPH). It consists of clamping and cutting the umbilical cord, the administration of uterotonic drugs by intravenous or intramuscular injection¹² and the application of traction to the umbilical cord to 'deliver' the placenta and membranes within a defined time, usually twenty minutes.¹³

The second method is not really a method; rather it is what happens in nature if there is no intervention. However, it is known as physiological, passive, or expectant management of the third stage of labour. As the name implies, this involves non-interference, a 'sit back and wait' attitude on the part of the practitioner, in the belief that nature will facilitate the birth of the placenta naturally with possibly some maternal effort being the only requirement. Because there is an understanding that the physiological dynamics may be disrupted by any interference, the

¹² The uterotonic drugs currently used are syntocinon or syntometrine. These drugs cause the uterine muscles to contract and retract thus expelling the placenta.

¹³ For a discussion around the options for third stage of labour care, see: N. Pilley Edwards, *Delivering Your Placenta: The Third Stage*: AIMS Association for Improvements in the Maternity Services, UK, 1999.

'method' involves no clamping or cutting of the cord, no uterotonic drugs, the provision of a relaxed, warm and comfortable environment which will encourage the mother's natural hormonal responses, no cord traction and the ability to wait for a considerably longer period of time than is considered safe for an actively managed 'third stage'. This style of 'management' will be referred to as physiological placental birth, as it occurs naturally and spontaneously, whether or not a birth attendant is present. The midwife's role is to be "patiently vigilant"¹⁴ and to do nothing to disturb the process if all is well.

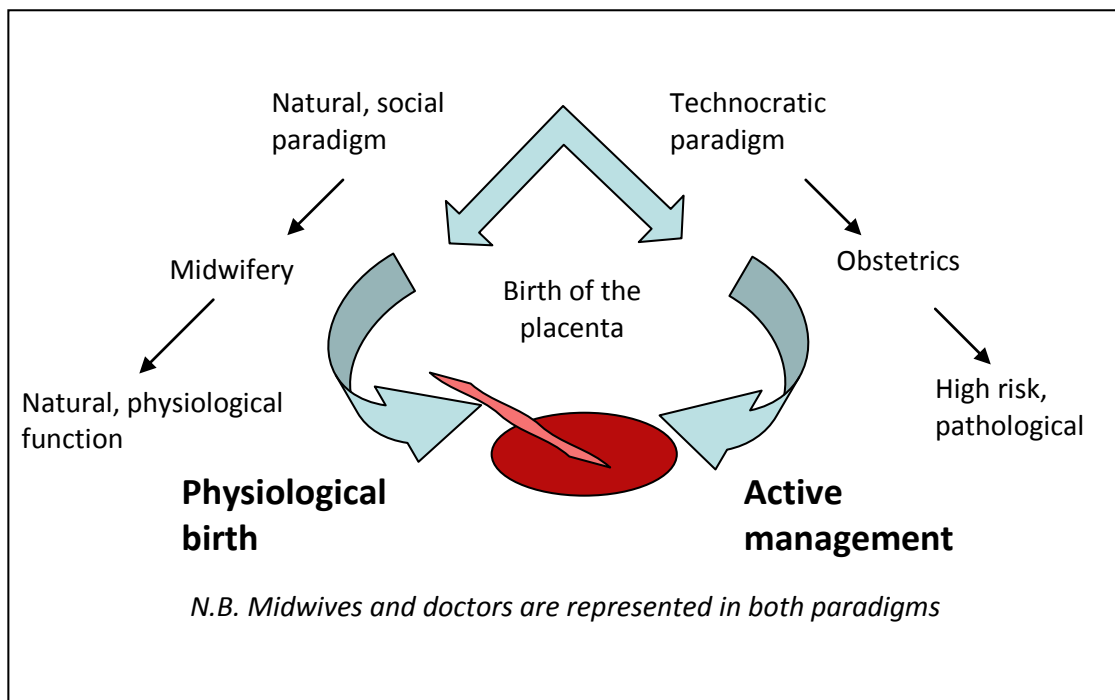


Figure 1: A diagrammatic representation of the polarization of practitioners' views about the management of the birth of the placenta

Figure 1 demonstrates the differing paradigms of medical and midwifery practitioners around the management of the birth of the placenta. There is marked polarization in practitioners' views about which method is preferable. Practitioners often have strongly held ideas about which methods are safer and why. Their knowledge is usually based on their professional education and on their practice experiences and environment, often reinforced by results from overseas research

¹⁴ M. Banks, Oral History Audiotape, Tamihere, August, 2008.

which may not be particularly applicable to the Aotearoa New Zealand situation.¹⁵ Although most medical practitioners prefer active management and many midwives prefer the natural, social (midwifery) approach there are midwives whose beliefs belong at the medical techno-rational end of the spectrum, and doctors whose practice and beliefs belong at the more natural 'pole'.

The use of medical interventions and drugs to manage the third stage is not devoid of complications.¹⁶ Considering the complex interplay of hormones that expedite both the expulsion of the baby, and then the expulsion of the placenta, it is apparent that there are variables that may interfere with the efficiency of the natural process.¹⁷ There are also concerns that interference with the natural processes of birth may not be beneficial to mother or baby and could, potentially, have untoward effects on society as a whole.¹⁸

There are many midwives, doctors, and women who believe that the modern maternity system, situated for the most part in hospitals and strongly based on the technocratic model of birth, is detrimental to the ability of the female body to give birth efficiently. Despite the changes to childbirth over the last decades, active management of the birth of the placenta is still overwhelmingly accepted as the safest management for most women, particularly for women who are considered to be at risk of PPH. This is manifest in hospital protocols, midwifery

¹⁵ For further discussion on this, see: J. Stojanovic, Otaki Birthing Centre: He Whare Kohanga Ora, *New Zealand College of Midwives Journal*, Vol. 28, 2002, pp.24-26.

¹⁶ See for examples: M. Fell, Management of Third Stage, Correspondence, *British Medical Journal*, September, 1966, p. 764; J. Patterson, Correspondence, *British Medical Journal*, October, 1966, p. 952; P. Dunn, Ergometrine and the Undiagnosed Twin, Correspondence, *British Medical Journal*, December, 1966, p. 1535.

¹⁷ For more information, see: J. Ockenden, The Hormonal Dance of Labour Can we teach women to get 'in the mood' for labour; Wickham, Ed. *Midwifery: Best Practice 2*, 99-101, Books for Midwives, London, 2004; S. Inch, Management of the third stage, 1985; M. Odent, Don't manage the third stage, 2003; S. Buckley, *Gentle Birth*.

¹⁸ For a discussion on these issues, see: Odent, M., *Primal Health*, Century, UK, 1986; Odent, M., *Birth and breastfeeding: rediscovering the needs of women in pregnancy and childbirth*, Forest Row, 2003; Odent, M, *The Scientification of Love*, Free Association, London, 1999; K. Uvnas-Moberg, *The oxytocin factor: tapping the hormone of calm, love, and healing*, Perseus, Oxford, 2003.

textbooks and in the obstetric consultant opinions received by midwives regarding the care of their clients.¹⁹

The Aotearoa New Zealand Midwifery Context

Maternity care in Aotearoa New Zealand is based on the concept of each pregnant woman having a Lead Maternity Carer (LMC) who works in partnership with the woman to provide and organize her maternity care. The LMC may be a doctor or a midwife and must offer the care in a way that maximizes continuity of carer, informed decision making and increased privacy for the woman throughout her childbearing experience. Midwives in Aotearoa New Zealand are able to work autonomously; legislation provides them with the ability to prescribe, order screening and diagnostic tests such as ultrasound and blood tests, attend their own clients at home and in hospital, and claim payment from the government in the same manner as a doctor.²⁰

This style of maternity care delivery, where a long term relationship evolves between the woman and her LMC is very different from most models of maternity care in other countries, and potentiates an atmosphere of trust and mutual understanding which can impact positively on the woman's maternity experience. Much of the research into the management of placental birth has been carried out in large hospital settings where continuity of carer is rare, where women may interact with multiple maternity practitioners, and often have little privacy during labour and birth.

The Research

I have come to see that it is not that birth is "managed" the way it is because of what we know about birth. Rather, what we know about birth has been determined by the way it is managed. And the way childbirth has been managed has been based on the underlying assumptions, beliefs and ideologies that inform medicine as a profession.²¹

¹⁹ See for examples, Capital and Coast District Health Board, 2002, *The Third Stage of Labour*, Information pamphlet, Wellington, author; The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG), RANZCOG Statement, *Management of the third stage of labour*, Author, 2003.

²⁰ For more information visit www.midwife.org.nz

²¹ B. Katz-Rothman, *Recreating Motherhood: Ideology and technology in a patriarchal society*, W.W. Norton & Co, New York, 1989, p. 178.

Katz Rothman's statement about the epistemology of midwifery is most applicable to the management of third stage. If we do not understand how and why this type of care eventuated then on what do we base our knowledge? Many midwives and most doctors rarely see a physiological birth of the placenta and have little understanding of the potential importance of undisturbed birth to both the woman and the baby. There is mounting evidence that some changes in practice such as delaying the clamping of the umbilical cord are of benefit to babies' health but practitioners are often resistant to change.²² There is also evidence that practices that change the physiological dynamics of birth may also influence the psychosocial ramifications of birth, potentially having considerable long-term effects on public health.²³

Questioning the Status Quo

The writings of Arms,²⁴ Inch,²⁵ Katz-Rothman,²⁶ Donley²⁷ and Kitzinger²⁸ made midwives and women aware that the techno-rational approach to birth, the 'obstetric' maternity system, was not necessarily the optimal birth environment for women, and that it was not inappropriate to question routine care, nor for women and midwives to demand autonomy over their birthing and their practice. Arms and Katz-Rothman drew attention to the fact that most maternity

²² For further information on this topic see: D. Hutchon, A View on Why Immediate Cord Clamping Must Cease in Routine Obstetric delivery, Views and CounterViews, *The Obstetrician and Gynaecologist*, Vol. 10, 2008, pp. 112 – 116; R. R. Grajeda, R. Perez-Escamilla, K. Dewey, Delayed Clamping of the umbilical cord improves haematological status of Guatemalan infants at 2 months of age, *American Journal of Clinical Nursing*, Vol. 65, 1997, pp. 425-31; J. Mercer, T. Bowman, Umbilical Cord Clamping: First do no Harm, Conference Proceedings, International Congress of Midwives, Brisbane, 2005.

²³ For further information on these theories see: S. Buckley, Undisturbed birth – nature's blueprint for safety; M. Odent, *The Scientification of Love*.

²⁴ S. Arms, *Immaculate Deception: A new look at women and childbirth in America*, Houghton Mifflin, Boston, 1975.

²⁵ S. Inch, Management of the third stage of labour- another cascade of intervention? *Midwifery*, Vol. 1, No. 2, 1985, pp. 114-122.

²⁶ B. Katz-Rothman, *Recreating Motherhood*.

²⁷ J. Donley, *Save the Midwife*, New Women's Press, Auckland, 1986; For further reading into medical midwifery power dynamics, see: Mein Smith, P., *Maternity in Dispute New Zealand 1920 – 1939*, Historical Publications Branch, Department of Internal Affairs, Wellington, 1986; Papps, E., Olssen, M., *Doctoring Childbirth and Regulating Midwifery in New Zealand*. Dunmore Press, Palmerston North, 1997.

²⁸ S. Kitzinger, *The Complete Book of Pregnancy and Childbirth*; S. Kitzinger, *The Politics of Birth*, Elsevier, London, 2005.

practitioners had never been exposed to physiological birth and had come to believe that what was experienced in the hospital setting was 'normal', when it was actually far from 'natural'. They pointed out that many routine birth practices had developed to suit the needs of birth attendants and hospitals rather than those of the women, and that women's birthing lore had been lost when medicine colonised birth. Donley's book, *Save the Midwife*, made Aotearoa New Zealand midwives and women aware of the politics and 'power-plays' of the dominant obstetric discipline in the Aotearoa New Zealand maternity system and also brought to their attention the improvement in the degree of control women had over their birthing in a homebirth situation.²⁹

Gaskin had been influenced by her environmental circumstances in America to become a lay midwife. Her environment, and her belief in the power of women's bodies to birth, caused her and her colleagues to try a new way of providing maternity care, free from much of the institutional constraints that other midwives worked under. Her results were outstanding, with low perinatal mortality and morbidity, and extremely low caesarean section rates. Her group of lay midwives eventually settled on a communal farm in Tennessee, nurturing labouring women using natural methods, and time, to facilitate instinctive birth. Her book *Spiritual Midwifery*³⁰ was so utterly different from mainstream beliefs and practices when it was published in 1977 that many institutionalised practitioners simply could not believe it.³¹ A startling and thought provoking book at the time, it was eagerly accepted by women and was influential in the re-emergence of homebirth in Aotearoa New Zealand in the late 1970s and 1980s. Kitzinger's work also encouraged midwives and women to challenge routine practices. These influences stimulated a degree of scepticism amongst many midwives, whose attitudes to routine practice became less accepting of the status quo and more demanding of a degree of autonomy for both the women and themselves.

As my midwifery experience became broader and I saw women birthing in their own settings, I marvelled at the difference between a woman in control of her own birth and birthing

²⁹ J. Donley, in Auckland Homebirth Association, *Welcome Home Birth Video*, c. 1989.

³⁰ I. Gaskin, *Spiritual Midwifery*, The Book Publishing Company, Summertown, USA, 1990.

³¹ Personal communications from midwives and obstetricians, St Helens Hospital, Wellington, 1978.

environment, and women birthing as I had been used to in hospital settings. These experiences and my midwifery philosophy forced me to question the medical management of placental birth and to question why natural physiological birth is regarded by the medical establishment as unsafe. I wanted to understand how and why practitioners' views on birth had become so polarised and why medical practitioners and many midwives have such faith in active management of the birth of the placenta, and no faith in a natural process that has been evolving for millions of years. Was active management the best and safest method? Why did it not appear to be so in my own practice? How did this state of affairs come about?

The research question

The beliefs that underpin the choice of research topic come from my long immersion within midwifery culture. They consist of a midwifery philosophy that has grown from my professional practice and my beliefs as a woman and as a midwife. They are simple, consisting of four key tenets:

Birth is a normal part of life. Birth is a natural function. Women know how to birth. There is an existent relationship between a woman's physical, emotional and spiritual wellbeing and her birthing ability.

The research question that was formulated from reflection on practice, and which this thesis has laboured to answer, is: ***How, and why have practices used to facilitate the birth of the placenta evolved in Aotearoa New Zealand?***

The Scope of the Research

To answer the research question I decided that it was necessary to examine the history of placental birth in western society. However, the birth of a placenta cannot be examined in isolation from its context as part of the birth of a baby. Birth, a social and cultural event as well as a physical, emotional and spiritual one, cannot be isolated from the society in which it occurs; therefore the research needed to examine not just the methods used to facilitate the birth of the placenta but the societal and cultural contexts that influenced them.

The decision to examine not just the actual birth process but the contexts from which clinical decision-making issued made the study of placental birth history in Western societies too big for a doctoral thesis. It was decided that the contextual aspects of the study were too important to discard, so to make the study manageable, the research has been confined to the history of the birth of the placenta in Aotearoa New Zealand, but with recognition of international influences.

Modern Aotearoa New Zealand, as a national identity, began with the signing of the Treaty of Waitangi in 1840. This study identifies and explains the placental birth knowledge and practices existing at that time, and the knowledge and practices from 1840 to the present. To answer the research question: *How, and why have practices used to facilitate the birth of the placenta evolved in Aotearoa New Zealand?* I needed to answer subsidiary questions which are; *What was the foundational knowledge of placental birth in Aotearoa New Zealand in the eighteenth and nineteenth centuries?* and; *What factors changed the foundational knowledge to create the practices that are used in today's world?*

To enable analysis of practices and knowledge over time and changing environments, a third subsidiary question arose which would enable the development of a theoretical model as a tool for analysis: *What factors facilitate optimal placental birth?* This is answered in Chapter Two.

To identify the foundational knowledge that informed Aotearoa New Zealand practice some basic tenets of the knowledge of birthing held by the indigenous New Zealanders, the Maori, and the knowledge of birthing brought to Aotearoa New Zealand by the early European settlers have been identified. Despite a paucity of early Aotearoa New Zealand writings about birth enough evidence was gathered to allow conclusions to be drawn, and foundational Aotearoa New Zealand birthing knowledge and practices to be established.

Health practices in Aotearoa New Zealand were, and still are, strongly influenced by international trends and innovations. Understanding changes in maternity practice and knowledge within Aotearoa New Zealand required an awareness of the external influences which were superimposed upon, and mingled with, the knowledge already embedded in society, so relevant important international influences have been recognised and incorporated into the research.

The Aims and Impetus for this Research

This research is underpinned by four aims. Firstly, it aims to increase midwifery knowledge by explaining the evolution of the practices employed to facilitate the birth of the placenta in Aotearoa New Zealand. Examination of the evidence used to justify these practices, and exploration of the experiential knowledge of Aotearoa New Zealand maternity practitioners provides information about the management of the birth of the placenta that will inform and challenge practice, thus improving midwifery knowledge. Secondly, this research will provide historical archives in the form of audiotapes as a contribution to historical and midwifery knowledge. Thirdly, this research has the potential to advance interdisciplinary relationships. Improving practitioners' understanding of each other's perspectives by illuminating their differing paths to knowledge may improve communication and teamwork.

The fourth aim concerns women's ability to decision make in relation to placental birth. There have been many changes in the delivery of maternity care in Aotearoa New Zealand over the last decades, particularly following the passing of the Nurses Amendment Act 1990 that enabled midwives to return to their role as autonomous health practitioners. In my years of practice as a midwife, and as a teacher of student midwives, I have found that despite these changes, the management of third stage is fraught with difficulties when midwives attempt to give unbiased, evidence based information to maternity care consumers. The current ethico-legal environment requires all Aotearoa New Zealand health practitioners to provide information to facilitate informed choice for their clients.³² This is embedded in the New Zealand College of Midwives (NZCOM) Philosophy, Code of Ethics and Standards for Practice.³³ Midwifery students have been required to submit essays to me which discuss situations that they have seen where ethico-legal constraints on practice have been either well managed by practitioners, or not well managed. An ongoing theme through these essays over the last nine years has been the difficulty experienced

³² For further information on the Code: Health and Disability Commissioner, Code of Health and Disability Consumers' Rights, http://www.legislation.govt.nz/regulation/public/1996/0078/latest/DLM209080.html?search=ts_regulation_Code+of+Health_resel&p=1&sr=1 , accessed 29th December, 2010.

³³ New Zealand College of Midwives, *Handbook for Practice*, NZCOM, Christchurch, 2007.

by midwives and obstetricians in facilitating informed choice for women in the area of 'third stage' management. Accordingly, the fourth aim of this research is to improve maternity practitioner's ability to provide evidence regarding the management of placental birth.

Active management and myth

Active management of the birth of the placenta is so entrenched in maternity practice in Aotearoa New Zealand that to give birth naturally, without intervention, is considered by many obstetricians, general practitioners, and midwives, to be dangerous and potentially 'high risk'.³⁴ The majority medical view is that active management of the third stage prevents haemorrhage and therefore all women should have medical intervention, yet, as previously noted, there is emerging evidence that suggests that this belief may not be correct.³⁵

There are also myths that warrant investigation, for instance, the commonly held idea that third stage practices such as cord traction came into vogue when doctors became involved in maternity care and did not have the time or patience to wait for the placenta to birth naturally. It was believed by some older midwives that doctors needed to find ways to deliver the placenta more quickly and these efforts increased the rate of PPH leading to the introduction of prophylactic measures (such as the use of uterotonic drugs).³⁶ It has also been alleged that midwives have used many intrusive and unnecessary practices over the centuries.³⁷ This research sheds some light on the origin of practices used in third stage management, and the rationale behind their introduction.

The stress of practising differently

As a nurse and later a midwife, I was taught active management of the birth of the placenta. I was confident and had no problem using the method for over twenty years. After 1988 I began

³⁴ An example of this was the Palmerston North Area Health Board, Third Stage Protocol, 1998, in which practitioners planning to use the physiological approach to birth the placenta were required to consult the obstetrician before doing so because of the perceived high risk.

³⁵ K. Guilliland, The Current Global Effort to Prevent Postpartum Haemorrhage: How likely is it to be effective? *New Zealand College of Midwives Journal*, No. 36, 2007, pp. 28 – 30.

³⁶ Personal communications from senior midwives, Wellington Public Hospital, Wellington, 1962 – 65.

³⁷ C. Manson & C. Manson, *Dr. Agnes Bennett*, Michael Joseph, London, 1960.

providing homebirth care, and then, from 1991, practised as a self-employed midwife offering both home and hospital care to women until I became a lecturer in midwifery in 2001. I practised, therefore, from 1988 using both a form of 'expectant management' of the third stage³⁸ and active management according to the woman's choice. At times I experienced disapproval from peers and from obstetric colleagues for attempting to 'allow' birth to proceed naturally, without intervention, despite the midwifery profession's legal and ethical imperatives to work in partnership with women to facilitate informed choice in regard to their childbearing experiences.

Midwives who allow the placenta to birth naturally are often criticized and can face approbation from their medical and midwifery colleagues. This unnecessarily increases stress levels in a profession where stress is a constant companion as midwives journey with women through their childbearing experience. Incidents that I experienced in my practice over the years had a profound effect on shaping my understanding of, and beliefs around, the management of the third stage of labour. I speculate that this shaping of practice belief is dependent upon the environment and the culture of the discipline in which each practitioner works. This would explain the wide disparity and polarization of practice beliefs that exist about the management of third stage labour. This polarization of practitioners does nothing to improve relationships and can become divisive, to the detriment of their ability to provide well coordinated care to childbearing women.

Understanding how the various practices have evolved requires examination and critique of the evidence upon which maternity practitioners base their practice. This research provides more clarity around the evidence underpinning maternity care during the birth of the placenta in Aotearoa New Zealand. It offers theoretical arguments as to how the differing styles of management came about. The knowledge gained from the current research to do with facilitating placental birth will be useful in supporting clinical midwifery practice, both in the active management of third stage labour, and in physiological placental birth. The theoretical model will help practitioners and women in their decision-making around third stage care. The research also

³⁸ This style of management was not pure physiological birth. Learned hospital mores still dictated that the cord was clamped and cut prior to the birth of the placenta. Signs of separation were looked for by checking the fundus and 'twitching' the umbilical cord. It took some years to unlearn actively managed third stage of labour techniques and to become comfortable with physiological placental birth.

contributes to knowledge about the way in which individual practitioners are influenced by their practice contexts, identifying some factors that have been influential in determining practice. Practitioners may gain more understanding of each others' perspectives and a more balanced knowledge of the topic to offer the consumer.

Current debate

Current debates around the management of the third stage of labour cover a range of issues, but the primary issue is the tragically unacceptably high rate of maternal mortality from PPH in developing nations. The issue is very complex as it is not just a matter of which method of third stage management is used, but the whole context for birth in these countries. The lack of access to midwifery or medical practitioners and uterotonic drugs, poor nutrition, and the status of women all have a part to play in the high maternal mortality. Active management is being promoted and taught as a way of lowering maternal mortality,³⁹ but if it is used without the necessary drugs, or used improperly, it has the potential to increase maternal mortality rather than lower it.⁴⁰ The idea of using active management as a panacea has resulted in a flurry of research into the use and administration of uterotonic drugs that can be used in tropical countries.

Active management has been supported in a recent Cochrane review as reducing the risk of major haemorrhage, but even within this document is the recognition that there are still indications that these results may be dependent on other factors including midwifery expertise:

It was recommended at the time of the first Cochrane review on this topic that trials be conducted in areas where midwives were skilled at using expectant or physiological management. The Netherlands and New Zealand are two such places, and observational studies emanating from these countries are worth examining as their results indicate no increase in blood loss in conjunction with the use of expectant management.⁴¹

³⁹ International Confederation of Midwives and International Federation of Gynaecologists and Obstetricians, Joint statement: management of the third stage of labour to prevent post-partum haemorrhage, *Journal of Midwifery and Women's Health*, Vol. 49, No. 1, 2004, pp. 76-77.

⁴⁰ K. Guilliland, The Current Global Effort to Prevent Postpartum Haemorrhage: How likely is it to be effective? *New Zealand College of Midwives Journal*, No. 36, 2007, pp. 28 – 30.

⁴¹ C. Begley, G. Gyte, et al. Active versus Expectant Management for women in the third stage of labour, (Review), *The Cochrane Library*, Vol. 10, 2010, p. 28.

The New Zealand College of Midwives (NZCOM) research was a population based, retrospective cohort study that included 33,752 births, and examined outcomes of women who had normal spontaneous labours and who had midwife LMCs. It included women birthing at home and in various hospital settings. The study results went against previous research, concluding that the women who received physiological care experienced less blood loss than the women who received active management of third stage.⁴² The other observational midwifery study from the Netherlands showed no difference in outcomes between active and physiological approaches to third stage labour management.⁴³ These studies, however, have the limitations inherent in their observational and retrospective design, including vulnerability regarding bias, often associated with data collection issues.

In most studies which have directly compared the two styles of management active management reduced the duration and amount of blood loss in the third stage of labour.⁴⁴ But Thilaganathan went against the trend when his 1993 study showed that although active management decreased the duration of the third stage of labour, the amount of blood loss was not reduced in comparison with expectant management in women at low risk for postpartum haemorrhage. Postpartum measurement of haemoglobin on the third day postpartum was used as a measure.⁴⁵ Kashanian

⁴² For further information on this New Zealand research see: New Zealand College of Midwives, *Third stage management practices of midwife lead maternity carers: an analysis of the New Zealand College of Midwives Midwifery Database Information 2004 -2008*, New Zealand College of Midwives, Christchurch, 2009.

⁴³ For further information on this research see: J. Bais, M. Eskes, et al. Postpartum haemorrhage in nulliparous women: incidence and risk factors in low and high risk women, *European Journal of Obstetrics & Gynecology and Reproductive Biology*, Vol. 115, No. 2, 2004, pp. 166–72.

⁴⁴ Examples include: J. Rogers, J. Wood, R. McCandish, et. al., Active versus expectant management of third stage of labour: the Hinchingsbrooke randomized controlled trial, *The Lancet*, 351(9104), 1998, pp. 693-699; W. Prendiville, Active versus expectant management of third stage of labour, *The Lancet*, Vol. 351, No. 9116, 1998, p. 1659; M. Brucker, Management of the Third Stage of Labour: an evidence based approach, *Journal of Midwifery and Women's Health* Vol. 46, No. 6, 2001, pp. 381 – 392; G. Khan, Controlled cord traction versus minimal intervention, *American Journal of Obstetrics and Gynecology*, 177, (4), 1997, 770-774.

⁴⁵ B. Thilaganathan, A. Cutner, J. Latimer and R. Beard, Management of the third stage of labour in women, *European Journal of Obstetrics & Gynecology and Reproductive Biology*, Vol. 48, 1993, pp. 19-22.

and Fekrat, in Iran, also found that, in low risk women, active management of the third stage of labour had no significant clinical effect on the amount of blood loss.⁴⁶

Dixon et al. have recently reviewed studies that specifically examine outcomes from physiological placental birth following physiological labour and birth. They found only four papers out of the 38 reviewed met their criteria of the participants having had no interventions during labour and birth. The research that met their criteria included two observational and two randomised controlled trials.⁴⁷ Their conclusion was that physiological placental birth could be supported in women having physiological labours and births.

Other recent midwifery literature points out that in randomised controlled trials of active versus 'expectant' or 'physiological' third stage, physiological third stage does not necessarily equate to the holistic midwifery style of care that is looked for in the theoretical framework for this current study,⁴⁸ but rather a management style that is not 'active.'⁴⁹ This current study of the history of placental birth will provide more evidence for medical and midwifery epistemology that debates 'third stage of labour' issues. For instance, the idea that early clamping and cutting of the umbilical cord is detrimental to the baby's wellbeing has been mooted since Aristotle's day and was still being debated when active management with early clamping and cutting of the umbilical cord became the recommended practice in the late 1950s.⁵⁰ Judith Mercer, in particular, contends

⁴⁶ M. Kashanian M. Fekrat, N., Masoomi, et al., Comparison of active and expectant management on the duration of the third stage of labour and the amount of blood loss during the third and fourth stages of labour: a randomised controlled trial, *Midwifery*, Vol. 26, No. 2, p. 241-245

⁴⁷ L. Dixon, J. Fullerton, C. Begley et al. Systemic Review: The Clinical Effectiveness of Physiological (Expectant) Management of the Third Stage of Labor following a Physiological Labor and Birth, *International Journal of Childbirth*, Vol. 1, Issue 3, LLC, 2011.

⁴⁸ See Chapter Two.

⁴⁹ For further discussion, see: K. Fahy, Third Stage of Labour Care for Women at Low Risk of Postpartum Haemorrhage, *Journal of Midwifery and Women's Health*, Vol. 54, No. 5, 2009.

⁵⁰ Examples include: J. Mercer, R. Skovgaard, Neonatal Transitional physiology: a new paradigm, *Journal of Perinatal Nursing*, Vol. 15, No. 4, 2002, pp. 56-75; D. Hutcheon, A View on Why Immediate Cord Clamping Must Cease in Routine Obstetric delivery, Views and CounterViews, *The Obstetrician and Gynaecologist*, Vol. 10, 2008., pp. 112 – 116; T. Corkill, *Lectures on Midwifery and Infant Care: A New Zealand Course*, 6th Ed., Whitcombe and Tombs Ltd, Wellington, 1960; J. Diaz-Rosello, International perspectives: cord clamping for stem cell collection: medical facts and ethics, *NeoReviews*, Vol. 7, 2006, pp. 557-563; E. Hutton, E. Hassan, Late vs. early clamping of the umbilical cord in full-time neonates: systematic review and meta-analysis of controlled trials, *Journal of the American*

that early clamping has become so routine that delaying cord clamping and allowing the cord to stop pulsating without clamping and cutting is now seen as 'experimental' when it is, in fact, the natural process.⁵¹

Current debate also questions which of the components of third stage are necessary to reduce maternal blood loss, and examines not only the different uterotonic agents used, but the timing and administration of them, the timing of controlled cord traction and umbilical cord clamping and even whether these practices are actually integral to the reduction of maternal blood loss.⁵² This research will provide further insight into these practices, informing current debate on the management of the birth of the placenta.

Literature Review

In academic and scientific journals there is an abundance of mainly medical writing concerning the management of the third stage of labour, although increasingly, especially since the 1990s midwifery writing is evident. The majority of articles found were based on medical research that compared different versions of active management of the third stage of labour. The literature included articles from medical journals such as *The Lancet*, *Journals of Obstetrics and Gynaecology* from Europe, Scandinavia, Britain, America, South Africa, Australia and Aotearoa New Zealand: *The British Medical Journal*, *British Journal of Obstetrics and Gynaecology*, *The International Journal of Gynecology and Obstetrics*, *The Medical Journal of Australia*, *Neuro-endocrinology Letters*, *Papua New Guinea Medical Journal*, *Pharmaceutisch Weekblad*, *Postgraduate Medical Journal*, *Prostaglandins and other Lipid mediators*, *South African Medical Journal*, *Gynecological and Obstetric Investigation*, *Gynaecologia*, *Evidence-based Obstetrics and Gynaecology*, *Evidence-*

Medical Association, Vol. 297, No. 11, 2007, pp. 1241-1252; L. Marquis, B. Ackerman, Placental respiration in the immediate neonatal period, *American Journal of Obstetrics and Gynecology*, Vol. 117, No. 3, 1973, pp. 358-363; S. MacDonald, P. Middleton, Effect of timing of umbilical cord clamping of term infants on maternal and neonatal outcomes. *Cochrane Database Systemic Reviews*, No. 2, CD004074, 2008; M. Gunther, The transfer of blood between baby and placenta in the minutes after birth, *The Lancet*, Vol. 272, No. 6982, 1957, pp. 1277-1280.

⁵¹ For further discussion on this, and the value of skin to skin care for the newborn, see: J. Mercer, D. Erickson-Owens, B. Graves, M. Haley, Evidence-Based Practices for the Fetal to Newborn Transition, *Journal of Midwifery and Women's Health*, Vol. 52, No.3, 2007, pp. 262 – 272.

⁵² For further information on these issues see: C. Begley, Active versus Expectant Management.

based Healthcare, European Journal of Obstetrics Gynaecology and Reproductive Biology, Drugs, Current Opinion in Obstetrics and Gynaecology, and the Bulletin of the World Health Organization.

The majority of these articles discussed, examined and critiqued research into which uterotonic drugs were the most useful in active management of third stage, particularly since the development of new drugs such as misoprostol. Examples of research into the different uterotonics included: H. El Refaey, Misoprostol for the third stage of labour, *The Lancet*, Vol. 347, 9010, 1996; H. El Refaey, R. Nooh, et al., The misoprostol third stage of labour study: a randomized controlled comparison between orally administered misoprostol and standard management, *British Journal of Obstetrics and Gynaecology*, Vol. 107, No. 9, 2000; H. El Refaey, The use of misoprostol in the third stage of labour, *International Journal of Gynecology and Obstetrics*, Vol.70, Supp 2, B8-B9, 2000; H. El Refaey, Use of Misoprostol in third stage labour, *The Lancet*, Vol. 359, No. 9307, 2002; A. Gulmezoglu, J. Villar, et al. WHO multicentre randomized trial of misoprostol in the management of the third stage of labour, *The Lancet*, Vol. 358, No. 9283, 2001, pp. 689-695. G. Hofmeyr, Misoprostol was as efficacious as standard oxytocin for prevention of postpartum haemorrhage, *Evidence-based Obstetrics & Gynecology*, Vol. 2, No. 4, 2000, pp. 87-88; G. Hofmeyr, Side-effects of oral misoprostol in the third stage of labour – a randomized placebo-controlled trial, *South African Medical Journal*, Vol. 91, No. 5, 2001, pp.423 – 435; G. Hofmeyr, Evidence-based intrapartum care, *Best Practice & research in Clinical Obstetrics & Gynecology*, Vol. 19, No. 1, 2005; G. Hofmeyr, V. Nikodem, et al., A randomised placebo controlled trial of oral misoprostol in the third stage of labour, *British Journal of Obstetrics and Gynaecology*, Vol. 105, No. 9, 1998, pp. 971 – 975; G. Khan, Abu-Dhabi 3rd stage Trial - oxytocin versus Syntometrine in the third stage of labour, *European Journal of Obstetrics, Gynecology and Reproductive Biology*, Vol. 58, No.2, 1995; S. McDonald, W. Prendiville, E. Blair, Randomised controlled trial of oxytocin alone versus oxytocin and ergometrine in active management of third stage of labor, *British Medical Journal*, 307 (6913), 1993, pp. 1167-1171; P. Ng, A. Chan, A multicentre randomized controlled trial of oral misoprostol and i.m. syntometrine in the management of the third stage of labour, *Human Reproduction*, Vol. 16, No. 1, 2001, pp. 31-35; Poeschmann, R., Doesburg, W., et al. , A randomized comparison of oxytocin, sulprostone and placebo in the management of third stage of labour, *International Journal of Gynecology and*

Obstetrics, Vol. 38, No.1, 1992, p. 69; P. Lumbiganon, J. Hofmeyr, et al., Misoprostol dose related shivering and pyrexia in the third stage of labour, *British Journal of Obstetrics and Gynaecology, Vol. 106, No. 4, 1999*; P. Lumbiganon, Side effects of oral misoprostol during the first 24 hours after administration in the third stage of labour, *BJOG: An international Journal of Obstetrics and Gynaecology, Vol. 109, 2002*; J. Villar, A. Gulmezoglu, et al., Use of Misoprostol in third stage labour, *The Lancet, Vol. 359, No. 9307, 2002*; J. Villar, A. Gulmezoglu, et al., Systemic review of randomized controlled trials of the use of misoprostol in third stage of labour, *Obstetrics and Gynecology, Vol. 17, No. 5, 2003, pp.811 – 823*; R. Walley, J. Wilson, A double-blind placebo controlled randomized trial of misoprostol and oxytocin in the management of the third stage of labour, *British Journal of Obstetrics and Gynaecology, Vol. 107, No.1, 2000, pp. 1111-1115*.

The current research will not include any indepth comparisons between different ecbolic drugs as the main thrust of this study is to examine the practices that have developed rather than which ecbolic agent is preferable, its dosage, or how it should be administered.

Since the 1950s when the idea of using uterotonic drugs prophylactically to facilitate the birth of the placenta became increasingly popular, until fairly recently, the literature was largely concerned with comparisons between techniques and drugs used in active management of third stage.⁵³ Chalmers, Fliegner, Gregson, Morison, Mills, and Kemp were some of the early writers debating the development of active management techniques such as how and when to use uterotonic drugs, and whether cord traction was to be used.

There were works that were more relevant to the current study such as those by Prendiville, and Rogers.⁵⁴ Their research compared active management of the third stage of labour with expectant

⁵³ J. Chalmers, Management of third stage of labour, *British Medical Journal, Vol. 1, 534, 1963, p. 114*; J. Fliegner, Active management of third stage of labour, *British Medical Journal, Vol. 2, No. 5514, 1966, p. 622*; A. Gregson, The third stage of labour, *The Lancet, Vol. 1, No.728, 1963, p. 954*; C. Morison, Third stage of labour, *British Medical Journal, Vol. 1. No. 535, 1963, p.318*; W. Mills, Management of third stage of labour, *British Medical Journal, Vol. 1, No. 534, 1963, p.1672*; Kemp, J., Review of cord traction in third stage of labour from 1963 – 1969, *Medical Journal of Australia, Vol. 1, No. 17, 1971, p. 899*.

⁵⁴ For discussion of these issues, see: W. Prendiville, D. Elbourne, I. Chalmers, The effect of routine oxytocic administration in the management of the third stage of labour: an overview of the evidence from controlled trials. *British Journal of Obstetrics & Gynaecology, Vol. 95, No.1, 1988, pp. 3-16*; J. Rogers, J. Wood, R. McCandish, et. al.,

or physiological management⁵⁵ and generated much debate and critique. Most of these studies did not include observations concerning variables that influence women's ability to birth their placentas well, such as maternal comfort, confidence, and position, and practitioner confidence. The research, and the debate attached to it, appeared in both midwifery and medical publications. The midwifery publications that emerged from the search included chapters in books edited by Wickham and articles in midwifery journals.⁵⁶ Among the authors were Wickham, Inch, Long and Begley.⁵⁷ The journals included the *Journal of Midwifery & Women's Health*, *Midwifery*, *The New Zealand College of Midwives Journal*, and *MIDIRS Midwifery Digest*.

Medical writing, while it remains society's recognised voice of authoritative knowledge,⁵⁸ does not always represent the voice, or the knowledge, of women, including consumers and midwives. The history of the female body is complicated by the fact that women rarely wrote about it. The discourses that defined and explained women's bodies arose within patriarchal cultures that controlled their sexual and reproductive capacities.⁵⁹ The medical profession's 'authoritative voice' was increasingly critiqued and questioned from the 1970s. Following the rise of feminism and the burgeoning interest in the social model of birth, writers such as Kitzinger, Odent, Gaskin, and Inch

Active versus expectant management of third stage of labour: the Hinchingsbrooke randomized controlled trial, *The Lancet*, Vol. 351, No. 9104, 1998, pp. 693-699.

⁵⁵ I use 'physiological' as used by these authors, however, these studies did not assess the style of holistic physiological placental birth that is discussed in the current study, and constitutes my theoretical model.

⁵⁶ Examples include: L. Wattis, The third stage maze: Which practice pathway for optimum outcomes? in S. Wickham, Ed., *Midwifery: Best Practice 2*, Books for Midwives, London, 2004, pp.112-117; R. Weston, What is normal childbirth? The midwifery practitioner's view, in S. Wickham, Ed., *Midwifery: Best Practice 2*, 2004, pp.6-7; S. Wickham, Further thoughts on the third stage, 2003; D. Vivio, D. Williams, Active management of third stage of labor: Why is it controversial? *Journal of Midwifery and Women's Health*, Vol. 49, 2004, pp. 3-4.

⁵⁷ S. Inch, Management of the third stage, 1985; P. Long, Management of third stage of labor: A review, *Journal of Nurse-Midwifery*, Vol. 31, No. 3, 1986, pp. 135-140; C. Begley, The effect of ergometrine on breast feeding, *Midwifery*, Vol. 6, No. 2, 1990, pp. 60-72; C. Begley, A comparison of 'active' and 'physiological' management of the third stage of labour.

⁵⁸ For discussions on authoritative knowledge, see: R. Davis-Floyd, C. Sargent, Eds., *Childbirth and Authoritative Knowledge: Cross Cultural Perspectives*, University of California Press, Berkeley, 1997; M. Stewart, Whose Evidence Counts? An exploration of health professionals' perceptions of evidence-based practice, focusing on the maternity services, *Midwifery*, Vol. 17, 2001, pp. 279 – 288.

⁵⁹ M. Green, *Women's Healthcare in the Medieval West*, Ashgate Publishing, Aldershot, UK, 2000.

began examining and questioning routine medical procedures and practices.⁶⁰ As homebirth became increasingly available over the 1980s and 1990s there were many stories written in publications such as the New Zealand Homebirth Association Newsletters that related women's and midwives' experiences with alternatives to the medical techniques used in hospital.

'Active' versus 'physiological'

This growing consumer-led resistance to 'standard' practice may have sparked new interest in research into the management of the third stage of labour, as several randomised controlled trials investigating the need for active management of labour followed in the late 1980s and in the 1990s. The more recent studies also examined and compared different practices used in the medical management of placental birth. For example: Khan compared outcomes when controlled cord traction (CCT) was or was not used.⁶¹

In an attempt to answer some of the criticisms of Prendiville's Bristol Trial of 1988, the Hinchingsbrooke randomized controlled trial, produced definitive research into whether actively managing the birth of the placenta was useful by examining whether active management of the third stage of labour lowered the rates of primary PPH in a hospital setting. The results were firmly in favour of the use of active management. The obstetric community accepted the results and used them to further support active management as the safest method for birthing the placenta and increasingly viewed alternatives as 'high risk'.⁶²

The research supporting active management of third stage, especially the Hinchingsbrooke Trial has since been extensively critiqued. Odent, among others, pointed out existent variables which would have been likely to have interfered with the natural hormonal processes during the study.⁶³

⁶⁰ I. Gaskin, *Spiritual Midwifery*, 1990; S. Kitzinger, *Experience of childbirth*, Penguin, Harmondsworth, 1984; S. Inch, *Management of the third stage*, 1985; M. Odent, *Primal Health*; M. Odent, *Birth Reborn*.

⁶¹ G. Khan, Controlled cord traction versus minimal intervention, *American Journal of Obstetrics and Gynecology*, Vol. 177, No. 4, 1997, pp. 770-774.

⁶² A. Baheiraei, M. Mahmoody, et al., Active versus physiological management of the third stage of labour, *International Journal of Gynecology & Obstetrics*, Vol. 70, Supp.2, B109, 2000.

⁶³ M. Odent, Active versus expectant management of the third stage of labour, Correspondence, *The Lancet* Vol. 351, May 30th, 1998, p. 1659; M. Odent, Don't manage the Third Stage, *Practising Midwife*, Vol. 1, 1998, pp. 31 – 33.

Midwives, in particular, who practised in situations very dissimilar to the large, busy hospitals in which the research was conducted, did not believe the results were necessarily valid for their practice environment.⁶⁴ Despite the dissenting voices, the Hinchingsbrooke Trial was so successful in promoting active management of third stage that it became the 'gold standard' for obstetricians, to the extent that it was suggested that there was no need for any further trials of active versus 'expectant' management in developed countries.⁶⁵

The Hinchingsbrooke trial has played a pivotal role as evidence for the continued use of active management of the third stage of labour. Most of the academic writing and research since the trial has focused on how to apply active management in the developing world as a way to reduce the huge maternal mortality attributable to primary postpartum haemorrhage. Much of the latest research is examining the use of modern utero-tonic drugs that could be used in situations where the older drugs are not usable because of distribution and storage (refrigeration) requirements.⁶⁶ The research, and the teaching of active management, are being actively promoted by the International Federation of Gynaecologists and Obstetricians (FIGO) and the World Health Organisation (WHO) with the support of the International Confederation of Midwives (ICM). As a result obstetric and midwifery literature has increasingly promoted the use of active management throughout the world.⁶⁷

⁶⁴ T. Anderson, Active versus expectant management of the third stage of labour: A Cochrane database review, in S., Wickham, Ed., *Midwifery: Best Practice*, 102 – 104, Books for Midwives, London, 2003.

⁶⁵ M. Kierse, What does prevent postpartum haemorrhage? Correspondence, *The Lancet*, Vol. 351, 1998, pp. 691 – 692.

⁶⁶ An example is: A. Gulmezoglu, J. Villar, et al., WHO multicentre randomised trial of misoprostol.

⁶⁷ Examples include: M. Brucker, Management of the third stage of labor: an evidence-based approach, *Journal of Midwifery and Women's Health*, Vol. 46, No. 6, 2001, pp.381- 392; J. Rogers, J. Wood, The Hinchingsbrooke third stage trial, in S. Wickham, (Ed.), *Midwifery: Best Practice*, Books for Midwives, London, 2003, pp. 105-107; D. Vivio, D. Williams, Active management of third stage of labor: Why is it controversial? *Journal of Midwifery and Women's Health*, Vol. 49, 2004.

Dissenting Voices

Odent and Buckley were among dissenting voices, which also included representatives of the New Zealand College of Midwives⁶⁸ to the 2005 ICM Congress, who were, and still are, of the opinion that the universal teaching of active management is not necessarily the ideal method to improve maternal outcomes. They argue for other ways of improving maternal mortality reserving use of utero-tonic drugs as treatment when required rather than as a prophylactic routine. They particularly argued that midwives need to be taught and be confident with both active management, and physiological placental birth. They also critiqued other aspects of active management which they considered may have health ramifications such as the early clamping of the umbilical cord.

Early umbilical cord clamping has been an integral part of active management of third stage since the 1950s. It has long been argued by practitioners who favour a more natural approach to birth that this practice may deprive the baby of approximately 100ml of blood, rich in stem cells, which would naturally be received without that intervention. Mercer and Bowman presented research at the 2005 ICM Conference in Brisbane which concluded: “a brief delay in cord clamping reduces intra-ventricular haemorrhage and sepsis in preterm infants [...] the additional blood volume gained has benefits for even the tiniest infants.”⁶⁹ Other writers that discuss expectant management of third stage⁷⁰ include Wickham and Odent who discuss the natural hormonal process that occurs physiologically in third stage and strongly promote expectant management as a healthier choice for mother and baby.⁷¹ Botha, a South African obstetrician, contended in 1968 that it was better for mother and baby if the cord was not clamped and cut.⁷² Botha’s work, as

⁶⁸ S. Gray, Unpublished correspondence from the New Zealand College of Midwives to the International Confederation of Midwives, NZCOM, 2004; K. Guilliland, The Current Global Effort; A. Burleigh, Controversy surrounding management of third stage of labour, *RCM Midwives*, Vol. 9, No.1, 2006, pp. 33.

⁶⁹ For further information on this topic see: R. Grajeda, R. Perez-Escamilla, K. Dewey, Delayed Clamping; J. Mercer, T. Bowman, Umbilical Cord Clamping First do no harm.

⁷⁰ These are the descriptions used by these authors to describe ‘non-active’ management of the third stage of labour.

⁷¹ M. Odent, Primal Health; J. Ockenden, The Hormonal Dance of Labour; Buckley, S., Undisturbed birth, 2004; S. Buckley, Labour and birth, What disturbs birth?

⁷² M. Botha, The management of the umbilical cord in labour.

previously mentioned, was influential in changing Aotearoa New Zealand midwifery practice, particularly in homebirth, as it introduced the concept of not clamping and cutting the cord until after the birth of the placenta, and reinforced the benefits of an upright birthing position for the woman.

Midwifery research

In contrast to the proliferation of clinically based research, there is a dearth of studies that focus on practitioners' experiences with third stage management. Of the latter, notable is Katherine Spenceley's MA Thesis that used Foucauldian Discourse Analysis to examine the choices made by women and their midwives concerning the birth of the placenta.⁷³ She focused on the type and use of information given to women, and examined and identified discourses of risk and uncertainty, within the discourse of pregnancy. These were reflected in the midwives' data as an expressed sense of being under surveillance, particularly in regard to the expectation that the midwife would keep the woman safe, while still facilitating informed choice for her. A sub-discourse of choice and the tension inherent between choice for the mother and clinical judgment on the part of the midwife was discussed with most of the midwife participants admitting to making the final decisions regarding the clinical care in relation to the birth of the placenta themselves. Spenceley's research also demonstrated the problems practitioners currently have in providing women with information about the management of the third stage of labour.

In her 2005 doctoral thesis Tina Harris studied both active and physiological midwifery management of third stage.⁷⁴ By examining midwifery textbooks over time and comparing the detailed management practices of midwives she concluded that many practices are passed from practitioners orally and by example, rather than as a result of formal teaching and the use of hospital evidence based policies and protocols. She mapped some of the changes in a limited group of textbooks over the years against some developments in medical technology. Harris'

⁷³ K. Spenceley, Unpublished MA Thesis, Choices of care in the third stage of labour, Massey University, Palmerston North, 2004.

⁷⁴ T. Harris, Midwifery practice in the third stage of labour, unpublished PhD. Thesis, de Montfort University, Leicester, 2005.

thesis, however was not an historical thesis; it did not utilise historical research methodology and covered a shorter time span.

Historical writing on 'third stage'

Baskett's 'A Flux of the reds: evolution of active management of the third stage of labour' and 'The development of oxytocic drugs in the management of postpartum haemorrhage' were the only articles located that dealt specifically with the history of the medical management of the birth of the placenta.⁷⁵ Baskett's historical accounts, while informing the current research, do not replicate it. He discussed PPH and herbal uterotonics from ancient Egyptian times to the present, with particular emphasis on ergot. His articles included interesting accounts of the isolation of ergometrine from ergot, and the development of synthetic oxytocin.

Professionalisation and Gender Issues

While an aim of the current research is to improve interdisciplinary relationships and communication, professionalisation and gender are two intertwined issues that are constant underlying themes that become apparent in midwifery and medical literature, and are evident throughout this thesis.

Minkowski outlined the struggles faced by early traditional female healers (including midwives) in Europe. He pointed out that they were faced with opposition as early as the 13th century.⁷⁶ Barred only by their gender from most European universities they were "considered ineligible as healers" because they had no academic education and faced persecution. Later, in succeeding centuries, they faced death as witches, although they "performed a service virtually indistinguishable from the one so zealously and aggressively defended by academically trained male physicians."⁷⁷

⁷⁵ T. Baskett, A Flux of the Reds: evolution of active management of third stage of labour, *Journal of the Royal Society of Medicine*, 93, 2000, pp. 489-493; T. Baskett, The development of oxytocic drugs in the management of postpartum haemorrhage, *The Ulster Medical Journal, Supplement*, May 2004, pp. 2-6.

⁷⁶ W. Minkowski, Public Health Then and Now, Women Healers of the middle Ages: Selected Aspects of their History, *American Journal of Public Health*, Vol. 82, No.2, 1992, pp. 288 – 295.

⁷⁷ W. Minkowski, Public Health Then and Now, p. 288.

The disharmony, and ongoing professional rivalry between midwifery and medicine has been identified, described and analysed in numerous publications. Allotey analysed midwifery responses to the medicalisation of childbirth in the seventeenth and eighteenth centuries, explaining that despite their attempts to adapt to a more scientific model, midwives were hindered by their lack of the strong professional and educational support that men enjoyed.⁷⁸

Savage, examined gender issues in organisations arguing that “Organizational assets, because they draw upon male forms of solidarity and on gendered patterns of subordination, are intrinsically vehicles of male power.”⁷⁹ Organisational hierarchies, including hospitals, are therefore patriarchal and although skill assets are less intrinsically gendered, women have historically been hindered from gaining the credentials that accompany the acquisition of skills. In both the past and current structure and political organisation of hospitals, women, although they have skills and expertise, have been prevented from gaining power and authority.⁸⁰ Western midwifery has experienced these constraints particularly as a predominantly female profession working in an environment where for centuries women were treated “as disabled people who could not fully participate in Society”.⁸¹

Burnham, examining medical history, discusses how successful physicians were in organising themselves. He refutes the commonly held idea that midwives were always poor and ignorant, acknowledging the influences that prevented them from organising themselves as a profession in competition with medical men within a patriarchal society. In Witz’ feminist analysis of professions and power the term ‘professional project’ was introduced to describe “projects of occupational closure” as a method of identifying four differing strategies used by male and female occupations to improve their professional status in the nineteenth century.⁸² Demarcation was a

⁷⁸ J. Allotey, English Midwives’ responses to the medicalisation of childbirth (1671 – 1795) *Midwifery*, vol. 27, 2011, pp. 532 – 538.

⁷⁹ M. Savage, in M. Savage, A. Witz, Eds., *Gender and Bureaucracy*, Blackwell/ The Sociological Review, UK., 1992, p. 130

⁸⁰ M. Savage, A. Witz, Eds., *Gender and Bureaucracy*.

⁸¹ J. Burnham, *What is Medical History?* Polity Press, Cambridge, 2005, p. 52.

⁸² A. Witz, Eds., *Gender and Bureaucracy*, p 192.

gendered closure strategy used by medicine against both nurses and midwives, but medical men had differing ideas when it came to demarcation strategies against midwives. The choice was between the de-skilling or incorporation of midwifery.

De-skilling, which sought to preserve the independent occupation of midwifery, although in a clearly de-skilled and subordinate position (...) [and] incorporation, which sought to 'end' not 'mend' the midwives' role, and replace the midwife with the obstetric nurse, who (...) could only attend the woman under the instruction of the doctor.⁸³

Witz notes that deskilling was the more common outcome in Britain. Eventually incorporation prevailed in New Zealand as the Nursing Act 1971 legally 'incorporated' New Zealand midwifery in the role of obstetric nurses.⁸⁴ I would suggest that the majority of New Zealand midwives had accepted that role well before the 1971 legislation was enacted.⁸⁵

De Broewere discussed the increasing professionalisation of midwives in the nineteenth and twentieth centuries. He contends that in areas where midwives remained the primary caregivers for birth, even if accountable to the medical establishment, there was far less maternal mortality than in areas, such as the United States of America where midwifery, as a profession was dispossessed.⁸⁶ While the conflict between the medical profession and midwives "was termed a 'conflict of professionalisation', it was in fact an underlying competition for a share of the market".⁸⁷ This idea is supported by Tew's analysis of the conflict.⁸⁸

The idea that medical men saved women from death at the hands of ignorant midwives is not upheld historically. While obviously doctors could and did save lives, so did midwives. Their skills were, and still are, complementary. Loudon's analysis of maternal deaths from the late nineteenth

⁸³ A. Witz, Eds., *Gender and Bureaucracy*, pp. 197, 198.

⁸⁴ See Chapter Eight for further discussion of the medicalisation, nursification and hospitalisation of midwifery.

⁸⁵ The change in midwifery role over the twentieth century in New Zealand is explained in Chapters Six, Seven and Eight.

⁸⁶ V. De Brouwere, The Comparative Study of Maternal Mortality over Time: The Role of the Professionalisation of Childbirth, *Social History of Medicine*, Vol. 20, No. 3, 2007, pp. 541 – 562.

⁸⁷ V. De Brouwere, The Comparative Study of Maternal Mortality over Time, p. 557.

⁸⁸ M. Tew, *Safer Childbirth? A critical history of maternity care*, Chapman and Hall, London, 1990.

century until 1935 provides evidence that during that period childbirth at home with a competent midwife was safer than in hospital with a doctor. Contemporary New Zealand commentators echoed this idea.⁸⁹ Obviously there were both midwifery and medical practitioners who caused more harm than good, usually through aggressively interfering in the natural process, Loudon pointed out that:

the trained midwife was less prone to interfere in labour, less likely to be a carrier of streptococcus, was often better educated in the basic techniques of obstetric care than the general practitioner and was certainly in many cases more skilled in normal deliveries.⁹⁰

The nursification and hospitalisation of midwifery in New Zealand slowly changed the autonomous role enjoyed by the self-employed and unregulated midwives prior to the passing of the Midwives Act 1904 into the subordinate role of employees within medically controlled bureaucratic organisations.⁹¹

Nursification cast midwives into the same obedient, caring, doctor assistant role of the nurses of those times. This culture pervaded midwifery and contributed to feelings of powerlessness among midwives working to try to change the system to make it more woman centered.⁹² The deprofessionalisation projects used by medical men over the last centuries in improving their own status also simultaneously lowered the status of women health professionals including midwives and nurses.⁹³ Nursing has been an example of the characteristics of women's work - low pay and terms and conditions inferior to those of male occupations. Employed midwives are also subject to the same conditions as nurses and in many countries are invisible and constrained within the

⁸⁹ For an example, see: H. Jellett, Maternal Mortality, *New Zealand Medical Journal*, Vol. XXI, April 1922.

⁹⁰ I. Loudon, Some International Features of maternal mortality, 1880 – 1950, in V. Fildes, L. Marks, H. Marland, *Women and Children First: International Maternal and Infant Welfare 1870 – 1945*, Routledge, London, 1992, pp. 16, 17.

⁹¹ J. Stojanovic, Midwifery in New Zealand 1904 – 71, *Contemporary Nurse*, No. 30, 2008, pp. 156 – 167.

⁹² This is demonstrated by instances of 'responsible subversion' described by midwives in Chapter Eight.

⁹³ V. Beardshaw and R. Robinson, cited in C. Davies, C., Gender and Management in Nursing, in Savage, M., Witz, A, Eds., *Gender and Bureaucracy*.

nursing workforce.⁹⁴ The gendered nature of the attitudes and professionalisation strategies used by the medical profession are illustrated by a 1892 British definition for an obstetric nurse:

The obstetric nurse who, under the charge and supervision of a medical man, carries out that portion of attendance which is more suitable to a mere woman, the changing of sheets and attending of the patient, and attentions of that kind.⁹⁵

Midwifery regulation in New Zealand was paralleled by the professionalisation of midwifery which took place within the constraints of gendered organisational structures.⁹⁶ It was not until 2004 that New Zealand midwifery managed to become a self-regulated profession.⁹⁷ Self-regulation, particularly the separation of midwifery from nursing regulation, is a rarity for midwives internationally despite the World Health Organisation's call for increased midwifery numbers (and autonomy) as a much needed major contribution to the fight to reduce maternal mortality and morbidity.⁹⁸

'Evidence' and Reflexivity

The need for practice to be evidence-based has become a key driver for the plethora of studies being undertaken in midwifery, obstetrics and other fields of health care. Stewart explored some of the problems posed for midwives by the current emphasis on 'evidence-based practice'.⁹⁹ According to Jordan medical knowledge is well established as the authoritative knowledge that holds sway in hospitals.¹⁰⁰ Medical knowledge is usually based on quantitative research and frequently it is dismissive of midwifery knowledge that may be based on qualitative research and

⁹⁴ International Midwives Conference, Durban, July, 2011.

⁹⁵ HMSO, 1892, Report from the Select Committee on the Registration of Midwives, House of Commons, London, 1982, p. 133, quoted in A. Witz *Professions and Patriarchy*, Routledge, London, 1992, p. 111.

⁹⁶ M. Savage, in M. Savage, A. Witz, Eds., *Gender and Bureaucracy*; A. Witz, *Professions and Patriarchy*.

⁹⁷ K. Guilliland, S. Pairman, *Women's Business: The Story of the New Zealand College of Midwives, 1986 – 2010*, NZCOM, Christchurch, 2010.

⁹⁸ International Confederation of Midwives Conference, Durban, July 2011.

⁹⁹ M. Stewart, Whose evidence counts?,

¹⁰⁰ B. Jordan, Authoritative knowledge and its construction, in R. Davis Floyd, C. Sargent, eds, *Childbirth and Authoritative Knowledge: cross-cultural perspectives*, University of California Press, Berkeley, 1997.

experiential wisdom. As Jordan pointed out: “The power of authoritative knowledge is not that it is correct but that it counts.”¹⁰¹ Midwives who deviate from practices that are considered ‘the norm’ in the medicalised world of hospital, (where most births occur in Aotearoa New Zealand) may be the focus of hostility from members of both the obstetric and the midwifery workforce. Evidence that may be logical and acceptable to midwives, particularly those who practice out of the hospital, may not be acceptable to their more medically oriented peers. The maintenance of medical evidence, usually quantitative, as the ‘gold standard’ however, is also dependent on the organisational culture of the workplace.¹⁰²

The differences and debate between the obstetric viewpoint and the social/midwifery viewpoint arise because quantitative research is based on ideas of objectivity and truth. Qualitative researchers, including historians, usually perceive objectivity to be unattainable. Partly because of the researcher’s impact on all phases of the research, there is belief in the existence of ‘truths’ rather than one ‘truth’. Truth, like beauty, is in the eye of the beholder, and therefore the perspective, attitudes, and biases of the researcher are embedded in the research in multiple ways.

Ashraf states that “reflexive feminist researchers explore their own values and the assumptions that they bring to their research and how these values and assumptions may impact the questions they want to address in their research.”¹⁰³ This involves an awareness of the researcher’s impact on all of the stages of research including research design, data collection, analysis and writing.¹⁰⁴

¹⁰¹ B. Jordan, *Authoritative knowledge*, p. 58.

¹⁰² M. Stewart, M. Stewart, *Whose evidence counts?*

¹⁰³ D. Ashraf, *Using a feminist standpoint for researching women’s lives in the rural mountainous areas of Pakistan*, in F. Shamim, R. Qureshi, *Perils, Pitfalls and Reflexivity in Qualitative Research in Education*, Oxford University Press, Pakistan, 2012,

¹⁰⁴ R. Hetz, Ed., *Reflexivity and Voice*, Sage Publications, California, 1997.

Assumptions must exist to allow the spiralling practice of reflexivity,¹⁰⁵ or self-criticism, and these may be “open to revision in order to learn from the ebbs and flows of history”.¹⁰⁶

Summary

This first chapter has introduced and explained the choice of the birth of the placenta as a research topic. The interface between the techno-rational medical paradigm and the more natural social view of birthing held by many, including consumers, some doctors, and many, but not all, midwives has been outlined. The two primary approaches¹⁰⁷ to managing the birth of the placenta have been defined and located within Aotearoa New Zealand maternity and midwifery contexts. Current epistemological debates exploring comparisons between the medical model of active management of the third stage of labour and physiological placental birth have been explored. Midwifery experiences and the philosophy that regards birthing as a natural function underpin the choice of research topic and have been explained. The research question, *How, and why have practices used to facilitate the birth of the placenta evolved in Aotearoa New Zealand?* and the subsidiary questions that must be answered have been identified and justified.

The aims of the research are to improve midwifery knowledge giving practitioners more understanding of the management of the birth of the placenta and more understanding of each others’ perspectives. Improving midwifery knowledge of the topic will also improve the ability of practitioners to facilitate informed choice for consumers.

The review of literature outlined the plethora of articles and medical research into third stage management dating back to the introduction of active management of the third stage of labour in the early 1950s as a way of preventing PPH. With the swing towards homebirth and less intervention in birth occurring in the 1980s and 90s, several important randomised controlled trials (RCTs) were carried out to assess whether actively managed third stage was actually necessary. The results strongly suggested that at least in the hospital setting active management

¹⁰⁵ F. Steier, *Research and Reflexivity*, Sage Publications, London, 1991.

¹⁰⁶ T. May, B. Perry, *Social Research and Reflexivity: content, consequence and context*, Sage Publications, London, 2011, p. 15.

¹⁰⁷ Some practitioners mix elements of each approach.

was preventing postpartum haemorrhage and this information has underpinned obstetric practice since, to the extent that the WHO is introducing the teaching of active management of third stage in developing countries in an attempt to reduce the unacceptably high maternal mortality from postpartum haemorrhage.

The results of the Hinchingsbrooke Trial have been used to discourage the use of physiological birth of the placenta in Aotearoa New Zealand despite the criticism that the research was carried out in a very different midwifery practice setting. Recent literature mostly consists of discussion about which uterotonic drugs are the most suitable for use in the developing world,¹⁰⁸ but there is recent research supporting the idea that some techniques used in active management may be detrimental to infant health, and that active management may not be the optimal management in all maternity environments.¹⁰⁹ Weston, Wattis, Ockenden, and Buckley promoted the use of the woman's natural (endogenous) hormones instead of the use of exogenous hormones as being safer for the woman and her baby.¹¹⁰

Concepts underlying the politics and differing paradigms of the medical and midwifery professions, gender and professionalisation, were identified. This analysis illustrated the tensions inherent in relationships between the medical and midwifery professions and their attitudes and beliefs, as these issues become visible and important factors in the current study. Exclusionary and discursive strategies were, and still are, used by the medical profession to maintain their position of power within society. These differences are exhibited in the way evidence is perceived and in the existence of medical knowledge as authoritative knowledge, particularly in hospital but also in the wider society in which we live. New Zealand midwifery still operates within a patriarchal society and medical knowledge is still seen as authoritative knowledge.

¹⁰⁸ An example is: A. Gulmezoglu, WHO multicentre randomized trial of misoprostol.

¹⁰⁹ Examples include: K. Fahy, *Third Stage of Labour Care for Women at Low Risk*; C. Hastie, K. Fahy, *Optimising psychophysiology in third stage of labour*; M. Odent, *Entering the World: The De-medicalization of Childbirth*.

¹¹⁰ L. Wattis, *The third stage maze*; R. Weston, *What is normal childbirth? The midwifery practitioner's view*; J. Ockenden, *The Hormonal Dance of Labour*; Buckley, S., *Undisturbed birth, 2004*; S. Buckley, *Labour and birth, What disturbs birth?*

Of note in the literature review was the relative lack of studies based on practitioners' experiences and on historical perspectives. It is in these two areas that the current research provides a signal contribution. The next chapter explains the design, method and methodology of the study, including the theoretical framework.

Chapter Two: Capturing the Past

It is the discipline of history which provides us with the opportunity to understand and appreciate the past, to distinguish myth from reality, and to see which elements of the past had an influence on future events.¹¹¹

Introduction

Implicit in the research question: *How, and why have practices used to facilitate the birth of the placenta evolved in Aotearoa New Zealand?* is the method of historical inquiry. The quotation from McDowell that begins this chapter explains succinctly why historical research is an appropriate method for this study. The primary aim of the research is to understand and appreciate how the birth of the placenta was managed over time, within the changing contexts in which it occurred. The current medical management of placental birth cannot be fully understood if we do not know how it came about. According to Bourdieu :

Many scientific mistakes would be avoided if every sociologist were to bear in mind that the social structures he or she studies at any given time are the products of historical development and of historical struggles that must be analyzed if one is to avoid naturalizing these structures. Even the words we employ to speak about social realities, the labels we use to classify objects, agents and events like the names of occupations and of groups, all the categorical oppositions we make in everyday life *and* in scientific discourse are historical products.¹¹²

Understanding how and why events or practice changes occurred enables a better critique of the practices that we are attempting to understand. Context is the key to analysing historical events, therefore as a reflective researcher the analysis of the historical context and the source material must be critically assessed.

A mixed method approach, utilising data from both written and oral sources, was seen as more likely to produce data from which credible conclusions could be drawn. There are myths, such as the theory that active management of the third stage of labour was introduced because doctors were too impatient to wait for the placenta to birth naturally that warrant investigation. Knowing what elements of the past have influenced, and are sometimes still influencing, today's practice helps us to understand how the practices that have evolved came about. I use the word evolved in

¹¹¹ W. McDowell, *Historical Research: a guide*, Longman, New York, 2002, p.3.

¹¹² P. Bourdieu, Vive la crise! For heterodoxy in social science, *Theory and Society*, Vol. 17, 1988, p. 779.

a non-Darwinian sense, as the way society, practitioners, and consumers have responded to various stimuli to create the contexts in which practices occurred.

Although the majority of this research is from written material, historical inquiry incorporating oral history was chosen because it is flexible, allowing the use of personal narrative in the form of topical oral history interviews. The data from the participant's testimonies could then be contextualized against multiple textual sources of information. The oral histories were expected to add insights into experiences which invoked attitudes and emotional responses in midwifery and medical practitioners when dealing with a stage of labour that has been described as a most dangerous time that "certainly warranted the presence of a medical practitioner."¹¹³ Textbooks, which are the commonest primary sources examined, are prescriptive. The extent to which the practices dictated by the texts were actually followed by Aotearoa New Zealand practitioners also needed to be clarified.

The research question: *How, and why have practices used to facilitate the birth of the placenta evolved in Aotearoa New Zealand?* required the answering of two subsidiary questions: *What was the foundational knowledge of placental birth in Aotearoa New Zealand in the eighteenth and nineteenth centuries? What factors changed the foundational knowledge to create the practices that are used in today's world?* To answer these questions it was necessary to identify and explain the foundational knowledge and practices, Maori and European, that merged to form the knowledge and practices of nineteenth century Aotearoa New Zealand. Understanding of the effects that colonisation, medical technology and innovation had on the original traditional practices was also required. To analyse those knowledges and practices, and those of the twentieth and twenty-first centuries, I needed a tool which would enable comparison of the varying practices.

Literature that expounded conditions for optimal physiological birth was examined and provided the theoretical model for this study. These conditions were informed by comparative obstetrics and endocrinological research. From these concepts I formulated a theoretical model of factors

¹¹³ T. Corkill, The Trend of Obstetric Practice in New Zealand, *New Zealand Medical Journal*, Vol XXXII, October, 1933, p. 43.

that optimise physiological birth of the placenta. Because the birth of the placenta is a part of the continuum of birth, the criteria used for the model also are those that facilitate optimal birthing. This model enabled the comparison and analysis of varying practices and states of knowledge in varying contexts and over time. The theoretical model is explained in a later section of this chapter.

Primary and Secondary Sources: Written Material

Primary sources of evidence that were sought included published and unpublished written material such as examples of early twentieth century hospital registers, contemporaneous medical and midwifery textbooks from the eighteenth century onward, and journals, practitioner diaries and autobiographies, student case studies, clinical protocols and memoranda, and consumer newsletters that include women's accounts of their babies' births. There was such a wealth of data, however, that it was reluctantly decided to exclude the consumer voice. Research into consumer perspectives of placental birth would be a useful and interesting future project.

The strength of the written data meant that the oral history interviews, dealing only with practice from the 1940s onward, became a smaller portion of the thesis than originally planned. This does not lessen their value. Their data enlivens the discussion of practice in the second half of the twentieth century and uncovers attitudes and experiences that would otherwise be lost. Intertextuality between the oral texts, between the written texts, and between the oral texts and the written texts, yielded data that would not otherwise have been located. The twenty-four topical oral history tapes and their summaries also, as intended, have created a data resource for future research.

Any historical research is judged by the quality of its sources. Primary sources are considered to be more powerful than secondary. Secondary written sources included published biographical and historical books and articles from medical and midwifery journals, unpublished and published theses and research reports. Documentary evidence was used both to trace the evolution of the management of the birth of the placenta, and also to establish the context within which data from interviews could be placed. This combination of primary and secondary sources assisted with the verification of data and also with understanding the rationale for some practices.

To answer the subsidiary questions *What was the foundational knowledge of placental birth in Aotearoa New Zealand in the eighteenth and nineteenth centuries?* and *What factors changed the foundational knowledge to create the practices that are used in today's world?* an extensive search of textual material was undertaken.

Maternity knowledge and practices from Europe.

There were plentiful secondary sources describing birthing including books on medical and midwifery history such as those by Donnison,¹¹⁴ Wilson,¹¹⁵ Rhodes,¹¹⁶ Gelis,¹¹⁷ O'Dowd,¹¹⁸ and Towler.¹¹⁹ Primary sources were not so easy to access but eventually, with the help of the Massey University Library, I was able to obtain copies of primary material including early treatises by Smellie,¹²⁰ White,¹²¹ Willughby,¹²² Stone¹²³ and Aitken¹²⁴ from the library of the Royal Australian and New Zealand College of Obstetricians and Gynaecologists in Australia. These were extremely valuable and furnished new perspectives into birth in seventeenth and eighteenth century Britain. This primary material also highlighted the differences between the original traditional midwifery and the 'medical midwifery' that was overtaking and replacing the original domiciliary based practice.

¹¹⁴ J. Donnison, *Midwives and Medical Men: A History of Inter-Professional Rivalries and Women's Rights*, Heinemann, London, 1977.

¹¹⁵ A. Wilson, *The Victorians*, Arrow Books, London, 2003.

¹¹⁶ P. Rhodes, *A Short History of Clinical Midwifery*, Books for Midwives Press, London, 1985.

¹¹⁷ J. Gelis, *History of Childbirth: Fertility, Pregnancy, and Birth in Early Modern Europe*. Polity Press, Cambridge, 1991.

¹¹⁸ M. O'Dowd, E. Philipp, *The History of Obstetrics and Gynaecology*, Parthenon Publishing Group, New York, 1994.

¹¹⁹ J. Towler, J. Bramall, *Midwives in History and Society*, Croom Helm Ltd, Dover, 1986.

¹²⁰ W. Smellie, *A Treatise on the Theory and Practice of Midwifery*, Wilson, London, 1752.

¹²¹ C. White, *Treatise on the Management of Pregnant and Lying In Women and the Means of Curing, But More Especially Preventing the Principle Disorders to which they are Liable*. Isaiah Thomas, Massachusetts, 1793.

¹²² P. Willughby, *Observations in Midwifery*, Ed. H. Blekinsop, S.R. Publishers, Wakefield, 1972.

¹²³ S. Stone, *A Complete Practice of Midwifery, Consisting of Upwards of Forty Cases or Observations in that Valuable Art, selected from many Others, in the Course of a very Extensive Practice*, T. Cooper, London, 1737.

¹²⁴ J. Aitken, *Principles of Midwifery, or Puerperal Medicine*, 3rd Ed. J. Murray, London, 1786.

Other early midwifery texts from Britain and Europe were easier to access because they were available in edited book form. Sharp¹²⁵ was a seventeenth century midwife who claimed to have read widely and, according to Hobby, used material that had arisen from other texts, mostly written by men and ultimately based on, and reflective of, the centuries old original texts of Galen, Aristotle and Hippocrates.¹²⁶ The difference in her work from that of other writings on midwifery, and the reason it was used to portray contemporary ideas about the management of the birth of the placenta is that at a time when birth was still mostly a woman's domain, her book reflected her own practice wisdom, and she was one of the few authors of the era who was actually practising midwifery when she addressed her midwifery manual "To the Midwives of England".¹²⁷ Sharp's book influenced British Midwifery for many years. While not all of her contemporaries would have been able, or willing, to follow her recommendations (or even to read), her writings cast light on both her own midwifery practice and the variety of practices of the time. There are, of course, other later women midwives who wrote texts for midwives. Sarah Stone was one example,¹²⁸ among others that included Margaret Stephens who first described 'rubbing up' the uterus to help it to contract.¹²⁹ Marland's annotated translation of the European midwife Catharina Schrader's memoirs was another recently published source of edited primary information on midwifery practice.¹³⁰

Maori experience

Because it was understood that Maori had lost much of their birthing lore due to colonisation,¹³¹ where to find useful data, particularly about birthing practices prior to European settlement, was

¹²⁵ J. Sharp in Hobby, E., Ed., *The Midwives Book Or the Whole Art of Midwifry Discovered*, Oxford University Press, Oxford, 1999.

¹²⁶ Hobby, E., Ed., *The Midwives Book*.

¹²⁷ J. Sharp, in E. Hobby Ed., *The Midwives Book*, p. xix.

¹²⁸ S. Stone, *A Complete Practice of Midwifery*.

¹²⁹ J. Towler, *Midwives in History and Society*.

¹³⁰ H. Marland, *Mother and Child were Saved: the memoirs of the Frisian Midwife Catharina Schrader*, Rodopi, Amsterdam, 1987.

¹³¹ M. Karatea-Goddard, personal communication, 1998.

rather a concern. I also had some anxiety about being a European New Zealander researching Maori, as I concur with others that Maori should research Maori, therefore I decided that I would use only published sources. Future research into unpublished written material and the gathering of Maori oral history testimony on this topic would be useful.

Historical accounts describing the times, such as those by Belich,¹³² Sinclair,¹³³ and Moon,¹³⁴ provided background contextual knowledge. Best¹³⁵ and Goldie's¹³⁶ descriptions of Maori life were very helpful, especially Best's *The Whare Kohanga*. I was conscious that their descriptions of Maori birthing were through the eyes of European men steeped in the values of the Victorian age, but the writings of Makareti¹³⁷ helped to minimise that issue. Anthropological studies such as those of Metge,¹³⁸ and Houghton,¹³⁹ gave a whole new perspective and provided some new and unexpected evidence to support my conclusions. Raeburn Lange's accounts of Maori health¹⁴⁰ yielded detailed contextual information about Maori health status in the nineteenth and early twentieth centuries and Maori writers including Mead¹⁴¹ and Mikaere¹⁴² helped in understanding Maori perspectives on birthing, particularly in regard to the *whenua* (placenta), and women's

¹³² J. Belich, *Making Peoples; A history of the New Zealanders*, Penguin Books, NZ, 1996.

¹³³ K. Sinclair, *The Pelican History of New Zealand*, Penguin Books, England, 1980.

¹³⁴ P. Moon, *Maori Social and Economic History to the End of the Nineteenth Century*, Huia Publishing, Auckland, 1993; P. Moon, *The Newest Country in the World*, Penguin Group, NZ, 2007.

¹³⁵ E. Best, *The Maori as He Was*, Government Printer, Wellington, 1952; E. Best, *The Whare Kohanga and its Lore*, A. R. Shearer, Government Printer, Wellington, 1975.

¹³⁶ W. Goldie, *Maori Medical Lore, Transactions of the New Zealand Institute*, 1903, Southern Reprints, NZ, 1998.

¹³⁷ Makareti, *The Old Time Maori*, New Women's Press, Auckland, 1986.

¹³⁸ J. Metge, *The Maoris of New Zealand*, Routledge and Kegan Paul, London, 1967.

¹³⁹ P. Houghton, *The First New Zealanders*, Hodder and Stoughton, Auckland. 1980.

¹⁴⁰ R. Lange, *May the People Live: A History of Maori Health Development from 1900 – 1920*, Auckland University Press, Auckland, 1999.

¹⁴¹ H. Mead, *Tikanga Maori: Living by Maori Values*, Huia, Wellington, 2003.

¹⁴² A. Mikaere, *The Balance Destroyed: Consequences for Maori Women of the colonization of Tikanga Maori*, Mana Wahine Monograph Series: Monograph 1, International Research Institute for Maori and Indigenous Education, Auckland, 2003; A. Mikaere, *Mai te Koreki te Ao Marama: Maori Women as Whare Tangata*, Conference Proceedings from The New Zealand College of Midwives Fifth Biennial Conference, Cambridge, September 2000.

place in Maori society. Harte,¹⁴³ was useful in highlighting the changes in Maori birthing that took place in the first half of the twentieth century.

The Settlers

Originally it was expected that diaries and letters would be useful sources of information about birthing for settler women, but two factors prevented that; the reticence of Victorian women to record their thoughts and experiences about bodily processes, and the sense that the birth of the placenta was just an expected part of birth and there was no necessity to write about it. Archival searches yielded little. No detail was found about the birth process.

Books about the lives of settler women, letters, and stories of women's lives shed light on their conditions, but again, contain no details about birthing. Collections of pioneering women's stories such as those by Macgregor,¹⁴⁴ Simpson,¹⁴⁵ Harper¹⁴⁶ and others were interesting and informative sources describing midwives and the lives of the settlers. Porter and Macdonald's,¹⁴⁷ and Fitzgerald's collections of letters,¹⁴⁸ were useful primary sources describing pioneering lives and included some information about birthing but, again, with no detail about placental birth. Writers that included Banks,¹⁴⁹ Papps and Olssen,¹⁵⁰ Donley,¹⁵¹ Mein Smith,¹⁵² Bryder,¹⁵³ Kedgley¹⁵⁴ and

¹⁴³ H. Harte, Maori Childbirth in the 1930s, in L. Bryder and D. Dow, Eds., *New Countries and Old Medicine*, Pyramid Press, Auckland, 1994.

¹⁴⁴ M. Macgregor, *Etiquette and Elbowgrease: Housekeeping in Victorian New Zealand*, Reed, Wellington, 1976; M. Macgregor, *Petticoat Pioneers: North Island Women of the Colonial Era*, Reed, Wellington, 1973.

¹⁴⁵ H. Simpson, *The Women of New Zealand*, Allen and Unwin, London, 1962.

¹⁴⁶ B. Harper, *Petticoat Pioneers: South Island Women of the Colonial Era*, Book Three, Reed, Wellington, 1980.

¹⁴⁷ F. Porter, C. Macdonald, Eds., *My Hand will Write what My Heart Dictates*, Auckland University Press, Auckland, 1996.

¹⁴⁸ C. Fitzgerald, Ed. *Letters from the Bay of Islands: The Story of Marianne Williams*, Sutton Publishing, UK, 2004.

¹⁴⁹ M. Banks, *Homebirth Bound: mending the broken weave*, Birthspirit Books Ltd, Hamilton, 2000.

¹⁵⁰ E. Papps, M. Olssen, *Doctoring Childbirth and Regulating Midwifery in New Zealand*.

¹⁵¹ J. Donley, *Save the Midwife*.

¹⁵² P. Mein Smith, *Maternity in Dispute New Zealand 1920 – 1939*, Historical Publications Branch, Department of Internal Affairs, Wellington, 1986.

¹⁵³ Bryder, L., Dow, D., Eds. *New Countries and Old Medicine*.

Dow,¹⁵⁵ were very useful secondary sources describing women's place in Aotearoa New Zealand society and the health issues of the times. Papps and Ollsens' Foucauldian analysis and history of the medicalisation of birth in New Zealand and Mein Smith's work were particularly useful in identifying and explaining some of the power dynamics, politics, and gender issues inherent in this history of an aspect of maternity in Aotearoa New Zealand.

Medical and Midwifery Texts

The most important primary sources of written material for this thesis were the textbooks, practice manuals and professional journals for doctors, midwives and nurses that covered the time period from the seventeenth century until today. Many texts were given or loaned to me by colleagues, but it was difficult to locate texts from the eighteenth, nineteenth and early twentieth centuries. This was partly solved by spending time immersed in the old texts that have been collected in the Otago Medical School Library in Dunedin. The Philson Library at the Auckland Medical School, although helpful, did not have a wealth of old textbooks.

British texts were the majority, the earliest a 1654 edition of Reynald's *The Birth of Mankind*, earlier called the *Byrthe of Mankinde or The Womans Book* [sic]. First published in England in 1540, it was the first printed translation into English of European writings about birth. It informed women and men, and in doing so it opened windows into a secret world that had hitherto been the domain of women.¹⁵⁶ Other useful texts included those by Johnston,¹⁵⁷ Comyns Berkeley¹⁵⁸ and Tweedy.¹⁵⁹

¹⁵⁴ S. Kedgley, *Mums the Word, The Untold Story of Motherhood in New Zealand*, Random House New Zealand, Auckland, 1996.

¹⁵⁵ D. Dow, *Safeguarding the Public Health, a History of the New Zealand Department of Health*, Victoria University Press, Wellington, 1995.

¹⁵⁶ Ballantyne, J., *The Byrthe of Mankind*, *The Journal of Obstetrics and Gynaecology of the British Empire*, Vol. XII, Oct. 1907, No. 4, reproduced in P. Wilson (Ed), *Childbirth, Changing Ideas and Practices in Britain and America 1600 – to the Present*, Vol. 1, Garland Publishing, New York, 1996.

¹⁵⁷ R. Johnston, *A New System of Midwifery*, London, 1769.

¹⁵⁸ C. Berkeley, V. Bonney, *The Difficulties and Emergencies of Obstetric Practice*, J. & A. Churchill, London, 1913.

¹⁵⁹ E. Tweedy, G. Wrench, *Practical Obstetrics*, Hodder and Stoughton, London, 1914.

There were also French obstetric texts, translated into English, which were part of the resources used by colonial doctors in Aotearoa New Zealand. Texts by professors of the Faculty of Medicine in Paris, Francois-Joseph Moreau,¹⁶⁰ who wrote *A Practical Treatise of Midwifery*, and later, Pierre Cazeaux and S. Tarniers' *Obstetrics: Theory and Practice*,¹⁶¹ were translated into English and printed in Philadelphia in 1844, and in London (7th Edition) in 1885, demonstrating the link between American, British and European obstetric knowledge. Other texts included Alfred Galabin's *A Manual of Midwifery*,¹⁶² and the beautifully executed *Illustrated Encyclopaedia of the Science and Practice of Obstetrics*, edited by Getchell,¹⁶³ and printed in Philadelphia in 1890. These texts, and those of Burns¹⁶⁴ and some others, were the 'clinical guidelines' of the Aotearoa New Zealand colonial doctor, some of them containing names and addresses of doctors who had owned them.

I found informative articles in the older medical journals, especially the *New Zealand Medical Journal*, *The Lancet*, *The British Journal of Obstetrics and Gynaecology* and the *British Medical Journal*. These helped to illustrate the debate around the management of the third stage of labour, and the issues between midwives and medical men. They were also able to provide added information around the introduction of medical technologies such as anaesthesia, asepsis and uterotonic drugs.

A colleague found *The Australian Midwife's and Nurse's Handbook*,¹⁶⁵ a second edition, written by Dr F. Milford, Lecturer at St Margaret's Maternity Home and examiner in Medicine at the

¹⁶⁰ F. Moreau, *A Practical Treatise on Midwifery: Exhibiting the Present Advanced State of the Science*, Carey and Hart, Philadelphia, 1844.

¹⁶¹ P. Cazeaux, S. Tarnier, *Obstetrics: The Theory and Practice; including the Diseases of Pregnancy and Parturition, Obstetrical Operations, Etc.*, 7th Ed., H.K. Lewis, London, 1885.

¹⁶² A. Galabin, *A Manual of Midwifery*, Churchill, London, 1891.

¹⁶³ F. Getchell, Ed., *An Illustrated Encyclopaedia of the Science and Practice of Obstetrics*, Gebbie, Philadelphia, 1890.

¹⁶⁴ J. Burns, *The Principles of Midwifery; including the Diseases of Women and Children*, Vol. 1, Anthony Finley, Redwood Fisher, Moses Thomas, Mathew Carey, Kimber and Conrad, Edward Parker, Johnson and Warner and Benjamin and Thomas Kite, Philadelphia, 1813.

¹⁶⁵ F. Milford, *The Australian Midwife's and Nurse's Handbook*, Heidelberg and Sydney, Australia, 1906.

University of Sydney, the first Australasian textbook found during this research. The author notes in the preface written in 1896, in regard to the first edition, that “no manual of the kind has yet been published in Australia”. Other texts for midwives and nurses included such useful items as ‘*A Complete Handbook of Midwifery for Midwives and Nurses*’.¹⁶⁶ The names of the books reinforce the idea of nursing and midwifery being considered two separate professions at that time, albeit with overlapping roles. The idea of having a book ‘to hand’ when working would underpin the name ‘handbook’ which seems to have been popular in the early 1900s. As medical men and trained midwives moved from the main centres into smaller towns and country practices the need for a simple manual for use by busy practitioners, whether doctor, midwife or nurse, all of whom often worked alone, would have generated demand for such books. The more remote rural areas had been the province, and were still the province in many cases, of the traditional midwife in that era.

Three medical textbooks were found dated 1912, 1913, and 1914. No medical textbooks were found from then until the 1930s, perhaps because of the disruption caused by the First World War (1914 – 18), however, a number of journal articles were published during that decade. The *Queen Charlotte’s Hospital Textbook*¹⁶⁷ and Tweedy’s¹⁶⁸ and Munro Kerr’s¹⁶⁹ texts exemplify obstetric writing from the early twentieth century.

Numerous late twentieth century midwifery and medical texts were available, including The Aotearoa New Zealand midwifery texts by Corkill¹⁷⁰ and Green,¹⁷¹ and British texts such as Maye’s,

¹⁶⁶ J. Watson, *A Complete Handbook of Midwifery for Midwives and Nurses*, The Scientific Press, London, 1904.

¹⁶⁷ T. Davies, L. Rivett, et al., *The Queen Charlotte’s Textbook of Obstetrics*, Churchill Ltd, London, 1939.

¹⁶⁸ E. Tweedy, Wrench, G., *Practical Obstetrics*.

¹⁶⁹ J. Munro Kerr, *Operative Midwifery*, Balliere, Tindall and Cox, London, 1908; J. Munro Kerr, R. Johnstone, et al., *Combined Textbook of Obstetrics and Gynaecology*, Livingstone, Edinburgh, 1944.

¹⁷⁰ T. Corkill, *Lectures on Midwifery and Infant Care: A New Zealand Course*, Coulls Somerville Wilkie Ltd, Wellington, 1932; T. Corkill, *Lectures on Midwifery and Infant Care: A New Zealand Course*, Whitcombe and Tombs Ltd, Wellington, 1948.

¹⁷¹ G. Green, *Introduction to Obstetrics: A Theory and Practice for Obstetric Nurses*, N. M. Peryer, Christchurch, 1962; G. Green, *Introduction to Obstetrics: A Theory and Practice for Obstetric Nurses*, N. M. Peryer, Christchurch, 1966; G. Green, *Introduction to Obstetrics: A Theory and Practice for Obstetric Nurses*, N. M. Peryer, Christchurch, 1970.

the stalwart midwifery texts by Myles,¹⁷² Towler,¹⁷³ an Australian text by Beischer and Mackay,¹⁷⁴ an example of an obstetric text by Williams and Sweet's *Maye's Midwifery*.¹⁷⁵ Other primary sources included data gathered from the *Appendices to the Journals of the House of Representatives (AJHR)*, an *Outdoor Casebook* from St Helens Hospital, Wellington, which was a midwifery training school,¹⁷⁶ and a 1921 birth record from St Helens.¹⁷⁷ Student midwives' and nurses' case records,¹⁷⁸ hospital and professional protocols and a 1989 Aotearoa New Zealand home birth education video also contributed to the variety of sources.¹⁷⁹

Oral History

Jordanova made the point that "interviews often pick up dimensions of the past, the ways in which people felt, which are not dependent on the literal exactitude of their memories."¹⁸⁰ Oral history interviews were used in the current study to elicit memories, of not only experiences but of the effect those had on the participants' practices. It is understood that experiences are not always remembered exactly, but the emotions felt, and the effect the event had on the interviewee, are remembered. Topical oral history interviews were used to provide a more personal view of the practices used in the third stage of labour. Textbooks are very prescriptive; the oral history interviews were intended to discover whether the actual practices used by the

¹⁷² M. Myles, *Textbook for Midwives, 8th Ed.*, Churchill Livingstone, London, 1975.

¹⁷³ J. Towler, R. Butler, *Modern Obstetrics for Student Midwives*, Lloyd Luke, London, 1973.

¹⁷⁴ N. Beischer, E. Mackay, *Obstetrics and the Newborn: An Illustrated Textbook*, W.B. Saunders, Sydney, 1986.

¹⁷⁵ F. Cunningham, P. MacDonald, and N. Gant, *Williams Obstetrics, 18th Ed.*, Appleton and Lange, California, 1989; B. Sweet, *Maye's Midwifery: A Textbook for Midwives, 12th Ed.*, Balliere Tindall, London, 1999.

¹⁷⁶ St Helens Hospital, Records 606 – 1095, *Outdoors Casebook*, Wellington 1913 – 1918.

¹⁷⁷ St Helens Hospital, Birth record of Mrs Ada Esther Gribble, *Indoor Casebook*, 28th September, 1921. Stojanovic Family Archive, Wellington, 1921.

¹⁷⁸ E. Aitken, Student Maternity Nursing Notes, Maternity Annex, Whangarei, Brunton Family Archive, 1935; E. Aitken, Obstetrical Casebook, H.-Mt.15, Whangarei Hospital, Brunton Family Archive, 1935; C. Radcliffe, Student Midwifery Notes, King George's Hospital, Rotorua, Otaki Health Centre Collection, 1939; C. Radcliffe, Obstetrical Casebook, H.-Mt.15, Rotorua Hospital, Otaki Health Centre Collection, 1939; J. Percival, Obstetrical Casebook, H.-Mt.15, Wellington Public Hospital, Stojanovic Family Archives, Otaki, 1962 - 1965.

¹⁷⁹ Auckland Homebirth Association, Welcome Home Birth Video, Auckland, 1989.

¹⁸⁰ L. Jordanova, *History in Practice*, Arnold, London, 2000, p.138.

practitioners matched those from the written material, and what the practitioners experienced and believed about third stage management.

The method of oral history enables the interviewee's voice to be heard, and although the researcher needs to interpret some of what was said and place it in the context of the culture of the time, the reader is enabled to access the actual narrative, rather than a transcription, so that readers can critique the narratives themselves. There is also potential for interviewees to be identified so that the perspective from which their narrative ensues can be more easily identified. Only three of the twenty-four research participants requested anonymity, the remainder readily agreed to being identified. Oral history primary sources are considered to be more valuable if the participants can be identified.¹⁸¹

The words 'oral history' describes the process as "a method of gathering evidence."¹⁸² "Tape-recorded historical information drawn from the speaker's personal knowledge" is involved, but the term 'oral history' can also be used to describe the actual recorded audio-tape or 'sound-bite' produced. The term can also be used to describe the documentation that is produced from the recorded data.¹⁸³ So 'oral history' describes both the process, and the product of that process. The product can also be labelled oral testimony and if that testimony is used in debate it becomes 'oral evidence'.¹⁸⁴

Oral testimony provides "essential evidence for analysis of the interactions between past and present, and between memory and mythology".¹⁸⁵ The methodology of oral history contains underlying theoretical ideas concerning personal and collective memory, subjectivity, and

¹⁸¹ R. Russell, *Historiography: a methodology for nurse researchers*, *Australian Journal of Advanced Nursing*, Vol. 16, No. 1, Sept – Nov., 1998, p. 141.

¹⁸² M. Hutching, *Talking History: A Short Guide to Oral History*, Bridget Williams Books and Historical Branch, Department of Internal Affairs, Wellington, 1993, p.1.

¹⁸³ P. Thompson, *The Voice of the Past: Oral History*, 3rd Ed. Oxford University Press, 2000, p. XI.

¹⁸⁴ M. Hutching, *Talking History*.

¹⁸⁵ A. Green, *Remembering: Writing Oral History*.

narrative structures which allow the oral historian to write with credibility. Care was taken to ensure that what was being heard by the interviewer was what the participant intended.

Participants may choose which memories they allow to surface, perhaps so that they present in an acceptable 'light' to the interviewer and to the reader of the research. Written historical sources are equally able to be chosen and used in this way. All texts, written and oral are partial, in the sense that they are incomplete and represent, or are informed by particular viewpoints. This is why texts need to be placed in context and why intertextuality is important. Intertextuality in the current research is enhanced by the interview data being utilised within context formed from other written and oral primary and secondary sources.

A story told is circumscribed by the experience and context of the storyteller. A practitioner's understanding of the occurrence being described is limited by their perceptions and their knowledge base, and by what their memory allows them to recall about that place and that time. The stories have more authenticity as historical evidence if their experiences concur with those of other participants. However, individuality of experience is also illustrated by difference potentially providing counterpoints to the accepted experience. It was originally intended that the topical oral history interviews of past and currently practising maternity practitioners, both midwifery and medical, would be the major primary source for this research. The wealth of written material covering several centuries precluded this as the oral histories begin to be heard only onward from the 1940s. This does not lessen their value however as the participants' attitudes and beliefs about the practices used provide an interesting contrast to the prescriptiveness of the data from the textbooks.

Oral History audiotapes

The oral history audio-taped interviews of twenty-four maternity practitioners about their experiences in managing the third stage of labour were an important primary source that brought life to the research, and created an oral history archive that contributed to our historical resources. Primary and secondary written sources, and other oral texts, were used to verify and explain the findings from the oral histories. The testimonies of the midwives and doctors were personal to them and while their stories are not necessarily representative of all practitioners'

experiences, there are commonalities illustrative of general Aotearoa New Zealand maternity practice.

Anonymity and access – or not...

Oral history is a valid historical enquiry method but the testimonies gathered needed to be placed in the context of their times, therefore it was important to identify each narrator's place in that context. Because the participants' stories would be more credible if the narrators were identified the interviewees were offered the option of anonymity, but it was also explained that their stories would have more weight if they were able to be identified. Demographic data was collected so that for practitioners who declined to be identified, their discipline and some demographic descriptors were able to be used to 'place' their testimony within its contextual background, while taking care to protect their anonymity.¹⁸⁶

There were two phases of oral history that needed to be considered. The first involved the collection of data and the writing of the research, the second, the creation of an oral history audiotape archive. There were, therefore, choices to be made regarding identification for the participants, who could consent to be identified in one or the other, both, or neither of the phases. They also had the opportunity to place conditions on the use of their audiotapes. For instance, they could allow identification of their narrative after a period of time (usually some years) had elapsed. Three of the participants availed themselves of this opportunity for varying reasons. Therefore care will be taken to ensure that the library or archive where the audiotapes are eventually stored has a system in place to ensure not only the proper physical maintenance of the tapes, but also the fulfilment of participants' conditions upon their use.

Choice of Participants

The research involved purposeful, maximum variation sampling to gain a wide variation in perspectives. The choice of participants encompassed 'cross paradigm' practitioners – homebirth and hospital based, 'cross discipline' – medical and midwifery practitioners, 'cross time' – past and

¹⁸⁶ For some further reading on oral history, see: A. Green, and K. Troup, *The Houses of History: a critical reader in twentieth century history and theory*, Manchester University Press, Manchester, 1999; A. Green, and M. Hutching, *Remembering: Writing Oral History*, Auckland University Press, Auckland 2004.

currently practicing practitioners and 'cross poles', that is, practitioners who were perceived to practice through and at the ends (or poles) of the techno-rational/social birthing continuum (see Figure 1). Because there are differing ideas about the management of third stage among practitioners, and because this research has created an historical archival resource, the participants needed to include past and present practitioners. This was to provide a greater chronological range of information.

The choice of participants would influence the findings from the oral history interviews which was why participants with a spread of experiences were selected. The interviewees were representative of a wide range of experience so that the topic was able to be examined from various perspectives. While this is essentially a contribution to midwifery research, a thorough investigation of the central research question necessitated consideration of a wide range of practitioners spanning the spectrum of birthing paradigms. Three obstetricians were interviewed, two of whom were currently practising and one who had retired. Because of time constraints on my part and theirs, only one retired general practitioner was interviewed.

I was aware of doctors and midwives who were willing to participate. These included expert practitioners who I wished to include as their experience had the potential to enrich the data collected. The selection of participants was purposive. Both hospital-employed and independent midwives, of which at least half had also practised in homebirth, were sought. Preference was given to participants who had long careers, at least fifteen to twenty years in practice, so that they had time to be exposed to a level of experience that would have shaped their practice beliefs. Examining the differences between younger and older practitioners' attitudes, because of the changes to midwifery education since 1990, would not have benefited this research and could have created complications by introducing different variables, however, research comparing the attitudes and practices of younger and older practitioners would be an interesting and worthy future research project.

Potential participants were contacted by phone and asked if they would be interested in participating in the project. If they were agreeable I sent them an explanatory information sheet by post or email describing the research and explaining what their participation would entail. They

were asked to contact me if they were interested or I would contact them again about a week later to ask if they wished to meet me and if so to arrange a time and place for the interview. Four medical practitioners and twenty midwives participated in purposive topical oral history interviews. Interviews were carried out in Christchurch, Wellington, Waikanae, Te Horo, Otaki, Levin, Palmerston North, Stratford, Waitara, Tirau, Cambridge, and Auckland. The detailed demographic data for the practitioners has been included in Chapter Nine to allow immediacy of access while reading the chapter.

The researcher as participant

I planned to include my own practice experiences as part of the data. I expected that my own experiences would have as much weight as that of the oral history interviewees but was unsure how they could be introduced. This problem was solved with the help of Rachael Selby, an experienced oral historian, who piloted my interview guideline sheet by interviewing me. Not only did this help with the assessment of the guideline sheet but it placed my information on the same level as that of the other participants.

I also participated in the research as part of the two way conversation during the interviews. Although I used open questions as much as possible, I found myself clarifying points so that they would be more easily understood by a listener. There were times that the interviews became conversational. Conversational interviewing is helpful as a way of prompting memories that might not otherwise surface. Aotearoa New Zealand is a small country; the midwifery population is, accordingly, a relatively small community. I personally knew most of the participants. It would have been unproductive to have maintained formality when sharing stories reflectively is part of midwifery culture.

Ethical Considerations

Because I was interviewing my peers, there were no major ethical issues attached to the research, nevertheless, there was a need to take care that participants did not feel pressured into participating and had a good understanding of what was required of them so that they made an informed choice whether to participate in the research or not. Because of this, and the need to guarantee confidentiality and anonymity to those who chose it, it was decided that full ethics

approval from the Ethics Committee was required. To this end a proposal was submitted to Massey University's Southern Ethics Committee. The application to the Human Ethics Committee and approval letters received are attached as Appendix I. A letter of invitation to participate and an information sheet was sent to each potential participant. These are appended in Appendix II. Those who responded affirmatively were phoned or emailed to arrange the interview.

Memories have the potential to become stressful. If a stressful situation had occurred during an interview the tape recording would have been stopped and the opportunity to withdraw offered to the participant. There were no memories that evoked stress to the degree that required these actions. There were several instances where I was asked to stop the audiotape to wipe a small portion of the conversation. These few deleted conversations involved discussion where a practitioner had been inadvertently named and the participant did not want the name on record.

The research was conducted, and the audiotapes treated, in accordance with National Oral History Association of New Zealand (NOHANZ) Code of Ethical and Technical Practice. I showed my guideline sheet to the participants prior to the interviews so that they had an idea of what would be asked. I explained that it was only a guideline and that they could discuss more or less than what was detailed on it. The Interview Guideline Sheet is appended in Appendix II with the invitation and Information sheet. Consent for the interview, including consent, or not, for identification was on one consent form. Consent for the archiving of the audiotape and conditions for the consequent access to the audiotapes were sought using a separate consent form. The consent forms were based on the templates suggested by the NOHANZ Code of Ethical and Technical Practice and the Massey University templates. Sample consent forms, the NOHANZ Code, and an example of a NOHANZ consent form are reproduced in Appendix III. The consent forms were given to the participants for signing prior to the interview taking place, but the consent to archive was signed on completion of the interview to be sure that the participant was comfortable with what had been recorded.

The Interviews

Each participant chose the venue for their interview. For most it was their homes, for a few it was my home, and some chose to be interviewed at their place of work. The interviewees were

geographically spread between Auckland, Wellington, and Christchurch to ensure that the data were not only from one part of Aotearoa New Zealand. This provided variation in midwifery practice settings. The medical practitioners had all practised between Palmerston North and Wellington, but had also practised in other areas.

The interview guide was used as a guide but not strictly adhered to. Flexibility was prioritised so that the participants were able to express themselves, and at times conversational discussion ensued. In two interviews, family members of the participants took part in the interview; Mina Timutimu's sisters, Vanessa and Mairengarenga were included at Mina's request, and Jim Hefford's wife, Cheryl, a physiotherapist who had been involved in childbirth education participated with him.

Security of Data

The audiotapes and their summaries were stored in a locked metal filing cabinet and care was taken that they could only be accessed by the researcher and her supervisors until the research was complete and permission had been given for the material to be shared. Participants were permitted to withdraw temporarily or permanently from the research at any time up until completion of the final draft of the thesis.

Analysis of the Oral History Data

The audiotapes were summarised by the researcher and commonalities and differences of opinion and of experiences were identified. These were related to and contextualised within the data from the written material which had been used to create a chronology of events and trends. A theoretical model was used to compare identified practices. Conclusions were drawn from those comparisons and the contexts within which the practices occurred.

The Development of a Theoretical Model

To enable examination and comparison of midwifery and medical practices over a particular historical period a benchmark was needed. To do this placental birth was taken right back to basic natural placental parturition. To assess how knowledge and practice supported, or were deleterious to, physiological placental birth, the identification of factors that support physiological birth was necessary. Therefore, the third subsidiary question (previously mentioned) arose: *What*

factors facilitate optimal placental birth? Answering that question enabled the formulation of criteria against which assessment and analysis of the practices and knowledge within the data could occur. Having identified the criteria the researcher was then able to create a theoretical model for optimal physiological placental birth, against which practices could be compared.

There has been a reasonable amount of literature examining and establishing the optimal conditions for natural birth. The same biological processes that support the birth of a baby also support the birth of a placenta. Much of the theory from which the criteria for the theoretical framework have been taken has come from animal studies, particularly research into mammalian parturition in the field of comparative obstetrics, from endocrinological research, and from midwifery and medical writers who searched for methods of facilitating natural childbirth.

Comparative Obstetrics and the Hormonal 'Dance of Love'

Comparative obstetrics is the study of the biology of parturition comparing that of different species. In particular, mammalian parturition biology is compared to that of humans. Naaktgeboren explained how comparative studies of humans and other mammals have contributed heavily to our knowledge of reproductive processes. He pointed out that many differing adaptive behaviours are seen, and although specific adaptations do not necessarily pertain to other species, aspects of human birthing processes can be compared to those of other mammalian species:

Parturition is not an isolated event, but a part of the total reproductive process; all aspects of reproductive biology are interrelated. The physiology and behaviour of all mammals at the time of birth are closely regulated and integrated.¹⁸⁷

The only birthing characteristic unique to humans is said to be the need for the baby to rotate its way through the pelvis because of our upright posture. To this could be added that humans are 'thinking' creatures, whose need to think and plan may inhibit instinctive behaviours.¹⁸⁸ Some of

¹⁸⁷ For further information, see: C. Naaktgeboren, *The Biology of Childbirth*, in I. Chalmers, M. Enkin, M. Keirse, Eds., *Effective Care in Childbirth*, Vol. 2, Oxford University Press, New York, 1991, p. 795.

¹⁸⁸ For further discussion, see: K. Fahy, *Third Stage of Labour Care for Women at Low Risk*; M. Odent, *Childbirth in the Age of Plastics*, Pinter and Martin, London, 2011, pp. 46-49. I. Gaskin, *Birth Matters: A Midwife's Manifesta*, Pinter and Martin, London, 2011.

the adaptive behaviours that humans share with other mammals include the need to be undisturbed, private, and to feel safe.

All mammals try to find a safe place before they can deliver their young. It is clear that this pattern of behaviour, common to all mammalian species including humans, favours the chance of survival for the offspring. If a labouring animal is disturbed, uterine contractions are inhibited and the female is able to leave the spot and to find another safe place before she gives birth. This adaptive mechanism clearly shows the importance of a perception of safety and avoidance of disturbance during parturition.¹⁸⁹

Naaktgeboren contends that common mechanisms of value for parturition are observed in all mammals and these include behavioural, physiological, endocrinological and anatomical aspects of the reproductive process. Discussing the effect of stress on mammalian labour Naaktgeboren comments that “the mere presence of an observer during parturition acts as a stress stimulus”.¹⁹⁰ Stress increases the levels of adrenaline circulating in the blood which affects placental function. Stress has an effect on uterine muscle activity during parturition and postpartum and therefore it follows that it has the ability to influence the birth of the placenta. Naaktgeboren makes a statement critiquing our obstetric system of birthing:

From the view of the biologist, human birth as carried out in the industrialized world does not fit well into the range of mammalian parturient behaviour. The environment of the modern hospital, with its unfamiliar surroundings and strange personnel is not the home environment with family and friends to which the woman is accustomed. Practices such as daylight obstetrics, restrictions of spontaneous activity, the supine position for delivery, and the separation of the newborn from its mother are not in accord with our biological heritage. [...] The safest way to help labouring women is to respect nature and not to interfere with spontaneous events unless there is clear evidence that to do so would be beneficial. It is dangerous practice to overestimate the ability of obstetric technology and to underestimate the spontaneous reactions and innate biological behaviour of the parturient woman.¹⁹¹

When a mother holds her naked baby against her skin the release of oxytocin is stimulated.¹⁹² According to Naaktgeboren just the sound and sight of the baby induces a rise in the deep body temperature within the breasts and lactation begins.¹⁹³ However it has also been shown by Uvnas-

¹⁸⁹ C. Naaktgeboren, *The Biology of Childbirth*, p. 795.

¹⁹⁰ C. Naaktgeboren, *The Biology of Childbirth*, p. 801.

¹⁹¹ C. Naaktgeboren, *The Biology of Childbirth*, p. 803.

¹⁹² This also helps to colonize the baby with maternal skin flora, which the mother has developed antibodies against, so that when she breastfeeds, the baby will gain protection from the bacteria in his home environment through the antibodies in the mother's milk.

¹⁹³ C. Naaktgeboren, *The Biology of Childbirth*.

Moberg, who has written about the key hormone that facilitates birthing, oxytocin, that giving the baby to the mother is a catalyst for a much more effective release of hormones.¹⁹⁴ There is a raft of literature from the fields of neuro-biology and psychophysiology, that support the concept that the woman's psychological and physical environment impacts on her biological processes.¹⁹⁵

Upright Birth

As previously mentioned, the only physical birthing characteristic unique to humans is the need for the baby to rotate its way through the pelvis because of our upright posture.¹⁹⁶ This requirement may cause problems as the baby, with its relatively large head, descends through the pelvis. Gaskin contends that women are as well-equipped to birth their offspring as any animal.¹⁹⁷ Balaskas argues that women should be upright and moving freely to facilitate birth. Her book, *Active Birth*, reminded practitioners and women of the traditional upright birthing that had been forgotten. Her book began with:

In every uninhibited labour there is a marked restlessness; the woman walks, stands, squats, kneels, lies down, and moves her body freely to find the most comfortable and appropriate positions. There can be no fixed position for a natural healthy labour and birth when a woman follows her own instincts – for birth is active, involving a succession of changing positions, and is not a passive 'confinement'.¹⁹⁸

Balaskas explained the history of how women's posture in birth had changed over the years. She discussed the use of upright birthing in primitive tribes and cited research that supported the use of upright birthing. Stretching exercises to strengthen the muscles to help in squatting were

¹⁹⁴ For further information on this topic, see: K. Uvnas-Moberg, *The oxytocin factor*; M. Odent, *The Nature of Birth and Breastfeeding*.

¹⁹⁵ Examples include: J. Cacioppo, L. Tassinari, G. Berntson, *Handbook of psychophysiology*, Cambridge University Press, New York, 2007; B. Lipton, *The Biology of Belief*, Santa Rosa: Mountain of Love/Elite Books, 2005; E. Rossi, *The Psychobiology of Gene Expression*, W.W. Norton, London, 2002; C. Sandman, L. Glynn, P. Wadhwa, et al. Maternal Hypothalamic-Pituitary-Adrenal Disregulation during the Third Trimester Influences Human Fetal Response. *Developments in Neuroscience*, vol. 25, 2003, pp. 41-49; S. Segerstrom, G. Miller, Psychological Stress and the Human Immune System: A Meta-Analytic Study of 30 Years of Inquiry, *Psychology Bulletin*, Vol.130, No. 4, July, 2004, pp. 601-630.

¹⁹⁶ C. Naaktgeboren, *The Biology of Childbirth*.

¹⁹⁷ I. Gaskin, *Birth Matters*.

¹⁹⁸ J. Balaskas, *Active Birth*, Unwin Paperbacks, London, 1986, frontispiece.

recommended and explained and different birth positions illustrated. Balaskas' book became very popular and contributed to the desire among women to take back control of birth.

In her book Balaskas referred to the excellent outcomes that had arisen from Michel Odent's encouragement of upright birthing in the hospital in Pithivier in France. Odent's book, *Birth Reborn*¹⁹⁹ demonstrated the results that could be achieved by the use of techniques that supported the mother's natural instinctive birthing behaviours. These behaviours were facilitated by the provision of familiarity with the environment in which the baby would be born, comfortable cosy rooms for birthing with mattresses on platforms to enable the woman to relax and to take up different positions freely during labour.²⁰⁰ Privacy with as little interruption to the mother as possible from birth attendants and supporters was recommended. The use of water in labour and for birthing was also an innovative step that may have drawn some attention away from the other methods he described, but was, and is, a useful way of facilitating physiological birth.

The Human Brain – helping or hindering

Odent²⁰¹ related how his practice as a surgeon and obstetrician was influenced by writers such as Ivan Illich²⁰² who questioned the pathologisation of normal functions such as birth, and Leboyer who poetically drew attention to the plight of the baby coming into the world, roughly treated and exposed to noisy stimuli and bright lights, effectively introducing the concept that birth could be handled in a gentler way to the benefit of the baby and ultimately society.²⁰³

Odent has written numerous books but an important contention he makes is central to the current research. It concerns the manner in which human brain activity can thwart a woman's instinctive ability to birth well. Odent contends that when the neocortical activity of the modern

¹⁹⁹ M. Odent, *Birth Reborn*, Souvenir Press, London, 1984.

²⁰⁰ M. Odent's "salle sauvage" in *Birth Reborn*,

²⁰¹ For further discussion, see: M. Odent, *Entering the World: The De-medicalization of Childbirth*, Marion Boyars, London, 1984.

²⁰² For further discussion, see: I. Illich, *Medical Nemesis: The Expropriation of Health*, Marion Boyars, UK, 1976.

²⁰³ For further discussion of these concepts, see: F. Leboyer, *Birth Without Violence*, Wildwood House, UK, 1975.

brain is stimulated by any distraction, including conversation, the activities of attendants monitoring the foetal heartbeat, assessing labour progress using vaginal examinations, or even just asking how she is feeling, the induced neocortical activity can interfere with the ability of the older 'primitive' brain, the hypothalamus, to provide the instinctive behaviours that help the woman to birth. His argument is convincing and draws upon biological research including that of comparative obstetrics, and particularly research into how the endocrine system orchestrates the interactions of the various hormones that support birth.²⁰⁴ Supporting his contentions is a wealth of research that has examined how animal and human brains can both release and inhibit the release of reproductive hormones, and can particularly affect the interaction between oxytocin and catecholamines.²⁰⁵

Buckley is an author and general practitioner in Australia,²⁰⁶ who explains convincingly and yet simply the physiology of the separation and expulsion of the placenta, and how the hormonal interactions operate and how easily they can be sabotaged by environmental factors. The use of exogenous oxytocin may reduce the availability of the maternal oxytocin receptors creating potential for haemorrhage. Endogenous oxytocin and endorphins are at their peak levels for mother and baby in 'third stage'. The catecholamines that caused the ejection reflex for birth are also high but decline rapidly. Anxiety or cold interfere with their decline, reducing the production of oxytocin and thus impeding uterine contraction, increasing the risk of postpartum

²⁰⁴ For further information on this issue, see: M. Odent, *New Reasons and New Ways to study birth physiology*, *International Journal of Gynecology and Obstetrics*, Vol. 75, 2001; M. Odent, *Primal Health Century*, UK, 1986; M. Odent, *Birth and Breastfeeding*; M. Odent, *The Nature of Birth and Breastfeeding*; I. Gaskin, *Birth Matters*.

²⁰⁵ Some examples of this research include: C. Pedersen, J. Caldwell, G. Jirikowski, T. Insel, Eds. *Oxytocin in Maternal Sexual, and Social Behaviors*, The New York Academy of Sciences, New York, 1992. C. Carter, *Oxytocin and the Prairie Vole: A Love Story*, in J. Cacioppo, G. Bernston, Eds. *Social Neuroscience*, Bradford, Massachusetts, 2004; J. Meaney, *The Nature of Nurture: Maternal Effects and Chromatin Remodelling*, in J. Cacioppo, G. Bernston, Eds. *Social Neuroscience*, Bradford, Massachusetts, 2004; G. Gimpl, F. Fahrenholz, *The oxytocin receptor system: structure, function, and regulation*, *Physiological Review*, Vol. 81, No. 2, 2001, pp. 629-683; D. Grattan, *The action of prolactin in the brain during pregnancy and lactation*, *Prog Brain Res*, Vol. 133, 2001, pp. 153- 171.

²⁰⁶ For detailed explanations of the hormonal dynamics of birth, see: www.sarahbuckley.com accessed 22nd May, 2011.

haemorrhage.²⁰⁷ Donley, a homebirth midwife, activist, and writer, also commented on the link between fear and inefficient birthing,²⁰⁸ A supporter of homebirth, Buckley echoes Odent in her philosophy, writing and lecturing about how homebirth can facilitate instinctive birthing and how this style of birthing can improve outcomes for mothers, babies and consequently society.

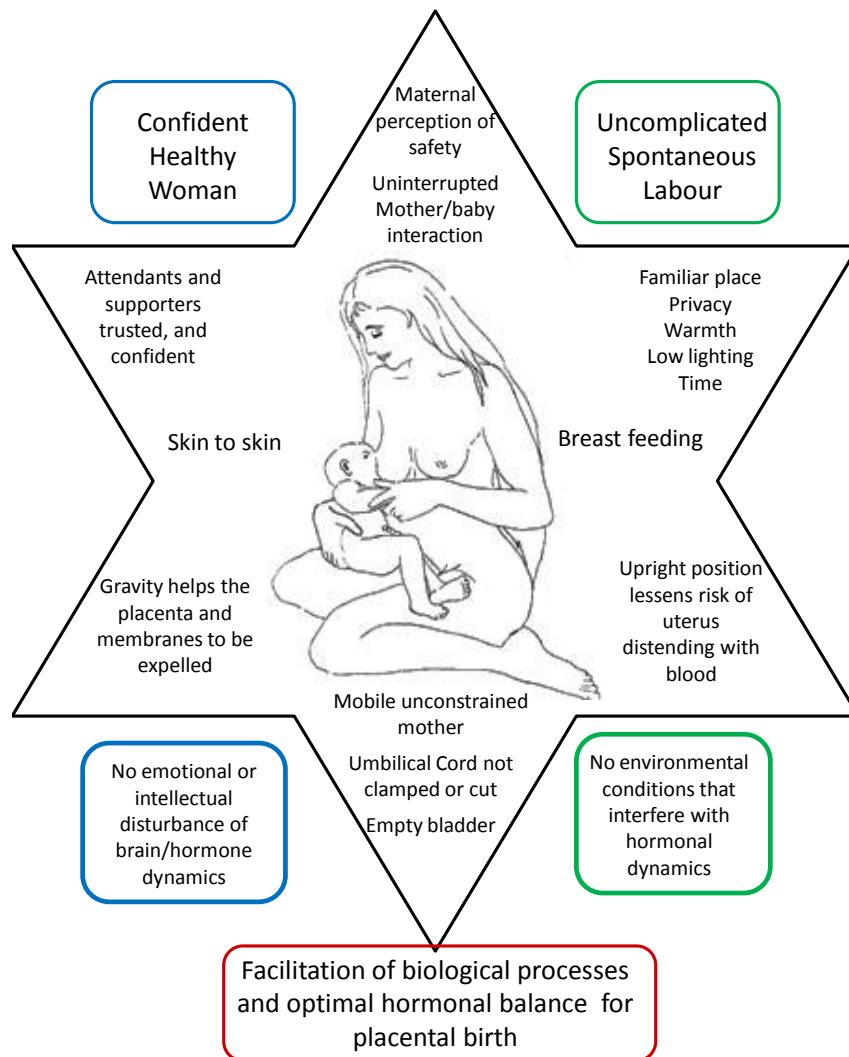


Figure 2: Theoretical Model of Factors Facilitating Optimal Physiological Placental Birth

²⁰⁷ For further discussion of these processes, see: S. Buckley, *Leaving Well Alone in the Third Stage of Labour*, *Birthspirit Midwifery Journal*, Issue 1, February, 2009, pp. 29-34; S. Buckley, *Gentle Birth*; Nissan, E., Lilja, G., Widstrom, A., et al., *Elevation of oxytocin levels early postpartum in women*, *Acta Obstet Gynecol Scand*, Vol. 74, No. 7, 1995. pp. 530 – 533.

²⁰⁸ J. Donley, in Auckland Homebirth Association, *Welcome Home Birth Video*.

Applying the Theoretical Model

The theoretical model for the current study has been designed based on the writings of the aforementioned authors. The obstetric maternity system as currently established in the developed world does not support and facilitate women's biological reproductive processes.²⁰⁹ This theoretical model, illustrated above in Figure 2, is based on conditions that do support them.

The model is in the shape of a six pointed star, representing the woman as the 'star', the central focus, so that care is centred on her and her baby as a symbiotic unit. The upright woman who has just birthed her baby takes centre stage. The woman should be confident and free to express her needs and preferences, remaining in control of her birthing and having her instinctive needs for privacy, security, and time take priority over institutional routines and the preferences of attending practitioners.

The provision of warmth, privacy and low lighting, the mother's perception of being in a place of safety, the confidence displayed by attendants and supporters, the immediate undisturbed skin to skin contact with her baby and breastfeeding, are in the upper or 'head' part of the star. The mother's prime emotional need at this point is for a feeling of security and safety and uninterrupted communication with her baby.

The provision of undisturbed time, or lack of any haste which could lead to unnecessary interference, is necessary to potentiate the hormonal dynamics which support the physical separation and expulsion of the placenta. Perhaps the woman, as she holds her newborn baby, or leans on hands and knees gazing at the baby, should be viewed as if she and her baby are in a 'bubble'. If the bubble is broken, the psychological and physiological interactions so necessary for placental birth will be disturbed.²¹⁰

The physical processes occupy the lower segments of the star. Allowing the umbilical cord to empty, and the baby to receive its natural complement of blood, maintains the normal physical

²⁰⁹ For more information on this, see: M. Foureur, Creating birth space to enable undisturbed birth, in K. Fahy, M. Foureur, and C. Hastie, Eds., *Birth Territory and Midwifery Guardianship*, Butterworth Heinemann Elsevier, Sydney, 2008; S. Buckley, *Gentle Birth*. M. Banks, *Home Birth Bound*; M. Odent, *Birth Reborn*.

²¹⁰ A practice experience where this concept came to mind is described in Chapter Nine.

dynamics and makes the placenta less turgid, as well as being beneficial for the baby. Botha commented that leaving the cord intact until after the placenta was born reduced the risk of postpartum haemorrhage (PPH).²¹¹ This idea fits well with Mercer's argument that early clamping of the cord is detrimental to infant health.²¹²

The placenta's descent from the uterine fundus, and then from the lower uterine segment and vagina is facilitated by gravity. Both midwives and doctors have been aware for decades that a full urinary bladder, or an exhausted uterus can predispose to both retained placenta and PPH.²¹³ An empty bladder and the mother's upright position and ability to freely move, aid the descent of the placenta and its membranes. The upright position also allows blood to drain from the vagina, with two benefits; the uterus is much less likely to distend with blood so that haemorrhage is able to be diagnosed quickly and promptly treated, and there is less likelihood of blood clots or membranes remaining in the uterus to potentially cause atonic uterus and PPH.²¹⁴

Balaskas stresses that it is not only that the woman should be upright, she needs to be able to be active, moving freely into positions that are instinctual and suit her needs.²¹⁵ Many women choose to birth in a hands and knees position. The baby is passed through the mother's knees and placed on the ground before the mother. Often the mother will gaze at her baby for some minutes while it changes colour and begins to breathe regularly, before picking the baby up against her chest

²¹¹ M. Botha, The management of the umbilical cord in labour.

²¹² For further discussion see: P., Dunn, The third stage and foetal adaptation, in J. Clinch, T. Matthews, Eds., *Ninth European Congress of Perinatal Medicine*, MTP Press Ltd, Dublin, 1984; J. Mercer, D. Erickson-Owens, B. Graves, M. Haley, Evidence-Based Practices for the Fetal to Newborn Transition, *Journal of Midwifery and Women's Health*, Vol. 52, No.3, 2007, pp. 262 – 272; J. Mercer, T. Bowman, Umbilical Cord Clamping: First do no harm; J. Mercer, R. Skovgaard, Neonatal Transitional physiology, pp. 56-75; A. Weeks, Umbilical cord clamping after birth, *British Medical Journal*, Vol. 335, No. 7615, 2007, pp. 312-313.

²¹³ Examples include: E. Tweedy, G. Wrench, *Practical Obstetrics*, Hodder and Stoughton, London, 1914; J. Munro Kerr, R. Johnstone, et al., *Combined Textbook of Obstetrics and Gynaecology*, 4th Ed., E. & S. Livingstone, Edinburgh, 1944; B. Sweet, *Maye's Midwifery*.

²¹⁴ This may be the reason that upright birth has been associated with blood loss greater than 500ml, although other research has found no significant difference in blood loss, see: J. Gupta, G. Hofmeyr, Position for women during second stage of labour, *Cochrane Database Systemic Review*, No. 1, 2004; B. Bodner-Adler, K. Bodner, et. al. Women's position during labour: influence on maternal and neonatal outcome, *Wien Klin Wochenschr.*, Vol. 115, No. 19-20, Oct. 2003, pp. 720 -723.

²¹⁵ J. Balaskas, *The New Active Birth: A Concise Guide to Natural Childbirth*, Thorsons, London, 1989.

and kneeling back, upright, on her haunches. This appears to be a very optimal position for birthing the placenta. Placental descent and expulsion, and the drainage of any blood is expedited by the maternal position and the mother, usually totally absorbed in her baby, is not thinking about anything other than her baby therefore reducing any anxiety about the placental birth.

Models of 'physiological management' of third stage of labour

This model differs from the model of physiological or expectant management used in The Bristol, Dublin, and Hinchingsbrooke Trials that have so strongly influenced the medical epistemology around the management of the third stage of labour. They established active management as the 'gold standard' preferred option, but have compared active management with 'non-active management' rather than the holistic style of placental birth inherent in the current research's theoretical model.

Fahy, Hastie, et al. have attempted to compare holistic physiological third stage care and actively managed third stage care in women who were judged to be at low risk of PPH. Their retrospective study had limitations; particularly in the way different practitioners interpreted how both physiological and active management was carried out. For instance, in physiological management skin to skin mother-baby contact was not used by all practitioners, and a variety of timing of cord clamping and cord traction were used in the active management group. Despite these drawbacks, and other recognised limitations, conclusions from their 2009 study suggested that physiological placental birth was safe for women deemed at low risk of PPH. The rate of PPH was increased seven to eight fold in the actively managed group.²¹⁶ These figures, although in a small population of women, reinforce the findings from the retrospective New Zealand NZCOM study.

Both Fahy and Begley have highlighted the difference between models of 'expectant' or 'passive' or 'physiological management' and the model of holistic physiological placental birth used as a

²¹⁶ For further information, see: K. Fahy, C. Hastie, et al., Holistic physiological care compared with active management of the third stage of labour for women at low risk of postpartum haemorrhage: A cohort study, *Women and Birth*, Vol. 23, 2010, pp. 146 – 152.

benchmark in the current study.²¹⁷ Even the Aotearoa New Zealand²¹⁸ and Netherlands²¹⁹ research cited by Begley, while showing that active management may not be the best way to reduce blood loss in women having normal, spontaneous labour and births, did not specifically study the variables that are inherent in the current research's theoretical model. No study has compared outcomes from this model of placental birth with actively managed third stage labour.

The theoretical model for the current research has been explained in this section of the chapter. The practices used to facilitate the birth of the placenta were identified from the written material and oral history data, and examined to assess how physiologically optimal they were when measured against the theoretical model's conditions for optimal placental birth.

Summary

This chapter elaborated on the use of historical research as the research method, using a mixture of historical Inquiry and topical oral history methods to gather data, and introduced the theoretical model. The location and use of primary and secondary written sources was outlined. The methodology of oral history as a research method was explained. The oral history data collection; and how the study was planned and executed were described, including the management of practical and ethical issues. The chapter finished with the introduction and explanation of the theoretical model. It was established that no research has compared active management of the birth of the placenta with the current research's model of placental birth. This concludes the first part of the thesis which has focused on the research process.

The second part of the thesis consists of Chapters Three, Four, and Five. It addresses the question: *What was the foundational knowledge of placental birth in Aotearoa New Zealand in the eighteenth and nineteenth centuries?*

²¹⁷ For further discussion, see: K. Fahy, *Third Stage of Labour Care for Women at Low Risk*; C. Hastie, K. Fahy, *Optimising psychophysiology in third stage of labour*; C. Begley, G. Gyte, et al. *Active versus Expectant Management*.

²¹⁸ For further information on this New Zealand research see: New Zealand College of Midwives; *Third stage management practices*.

²¹⁹ For further information on this research see: J. Bais, M. Eskes, et al. *Postpartum haemorrhage in nulliparous women*.

Chapter Three identifies and examines the knowledges and practices used to facilitate the birth of the placenta in Britain prior to the nineteenth century. The traditional knowledge and practices and the early medical influences that informed the British settlers who imported them to Aotearoa New Zealand are analysed. The medical childbirth knowledge and practices of the nineteenth century are analysed in Chapter Four. The eighteenth and nineteenth century context for birth in Aotearoa New Zealand is described and how placental birth was facilitated in that new environment is analysed in Chapter Five. The theoretical model is used throughout to analyse the birthing knowledges and practices in these varying contexts.

Chapter Three: European Traditional Birthing

Introduction

In sixteenth and seventeenth century Britain and Europe birth was seen as an expected normal, although challenging, and often fearful part of a woman's life. Birth was considered the domain of women; most births were social events, attended by family members, friends and neighbours, and traditional midwives, in the woman's home.²²⁰ There is evidence for male input into gynaecological illness and complicated obstetrics as men were not totally excluded from the treatment of women even in ancient and medieval times,²²¹ but childbirth, particularly 'normal' childbirth, remained almost completely in the hands of women.²²²

Birth attendants used rituals and practices that were not usually based on scientific knowledge but rather on domestic practice, cultural and religious thought and local superstition, combined with midwifery knowledge usually gained by midwives observing other midwives' practices, and by simply attending many births.²²³ This chapter identifies, and using the theoretical model, analyses the birthing practices of Europe and Britain that the early settlers would have been familiar with prior to embarking for Aotearoa New Zealand. This knowledge was brought to Aotearoa New Zealand by the settlers, and became part of the foundational birthing knowledge and practice of Aotearoa New Zealand.

Traditional Practice

French traditional practice in birthing the placenta, still in use in the nineteenth century, is described by Gelis, "Not until the first cry was the cord cut".²²⁴ He then outlines the process that

²²⁰ A. Banks, *Birth Chairs, Midwives, and Medicine*, University Press of Mississippi, Jackson, 1999; J. Gelis, *History of Childbirth*; J. Towler, J. Bramall, *Midwives in History and Society*; J. Donnison, *Midwives and Medical Men*.

²²¹ M. Green, *Making Women's Medicine Masculine: The Rise of Male Authority in Pre-Modern Gynaecology*, Oxford University Press, Oxford, 2008.

²²² M. Green, *Women's Healthcare in the Medieval West*.

²²³ A. Wilson, *The Making of Man-midwifery: Childbirth in England 1660 – 1770*, UCL Press, London, 1995.

²²³ J. Gelis, *History of Childbirth*.

²²⁴ J. Gelis, *History of Childbirth: A Wilson, The Making of Man-midwifery*.

was used to treat the cord and bind it to the baby's body, and how the baby would be taken to the hearth to keep it warm while the midwife returned to help the mother expel the placenta.²²⁵ The commonest method was to tie the umbilical cord to the woman's thigh to prevent it from going up inside her, and wait.²²⁶ If necessary, methods such as getting the mother to sneeze, vomit, blow hard, or abdominal massage were used. Neither cord traction nor manual removal of the placenta was a common practice.²²⁷ After the birth the placenta was checked to see that it was complete:

Satisfied she would set it aside, and make sure that the mother was well and that the lochia was flowing normally, then she would turn back to the child.²²⁸

Wilson comments that although swaddling the baby completed the birth, it was only the beginning of the childbirth ritual that was the month of 'lying-in'. He describes the 'lying-in chamber' as being totally enclosed, physically and symbolically. Light was excluded by curtains, air by blocking even the keyholes, candles and often a fire were used for light and warmth, while the 'caudle' of warm ale or wine, was prepared with sugar and spices by the supporting women, or 'gossips'. Men were excluded or restricted. Wilson speculates that 'lying in' was a method of preventing women from exploitation and of emphasising their need for recovery from birth and being excused from their usual duties.²²⁹ The woman was expected to remain in bed for anything from three to fourteen days, sometimes taking over some of her lighter duties gradually over the last fortnight before the month was up, when she could be 'churched' and could rejoin society.²³⁰

Midwifery and the Written Word

Caxton's fifteenth century invention of the printing press was a major factor in the changes that were to overtake midwifery practice in Britain. *'The Byrthe of Mankynde'* or (later) *The Birth of*

²²⁵ J. Gelis, *History of Childbirth*.

²²⁶ A practice known to be still in use by traditional midwives in mid-twentieth century Tonga, personal communication, Violani Wills, RGON, RM, 2009.

²²⁷ J. Gelis, *History of Childbirth*.

²²⁸ J. Gelis, *History of Childbirth*, p. 173.

²²⁹ A. Wilson, *The Making of Man-midwifery*.

²³⁰ 'Churching' was a religious ceremony for the woman that included thanksgiving for safe deliverance. Wilson states that 90 percent of women chose to be churched. There may also have been an element of being 'cleansed' after the birth.

Mankind was very popular and was reprinted several times over the next centuries.²³¹ Reynald's 1654 4th edition discusses "How the Secundine or Second Birth shalbe forced to issue forth, if it come not freely of his own kind", discussing that:

also sometime it cometh to pass, that the Secundine, which is wont to come together with the birth, remain and tarrie behind, and follow not, and that for divers causes.²³²

The statement that the secundine should come "freely of his own kind" and that it usually accompanies the birth, suggests a perception of nothing being done to physically expedite the secundine's birth at that time, although it is argued that at least in Europe many midwives (of both genders) were very ready to intervene in ways that were detrimental to women's safety.²³³

Jean Towler, a midwife, wrote about the position of midwives in British society, describing the British midwives of the sixteenth century:

The majority of midwives were still illiterate, and although they may have been skilled at normal delivery of healthy women, they had no 'training' for the variety of obstetric and paediatric complications with which they had to deal, generally alone. [...] her only source of help was from a limited number of barber-surgeons who were called in as a last resort.²³⁴

Traditional midwives were still the norm in Europe in the eighteenth and early nineteenth centuries. In Britain the midwifery knowledge of the eighteenth century was handed down from woman to woman as, unlike Europe, Britain offered little education for midwives until the early nineteenth century, and medical schools teaching scientific 'midwifery' were usually not accessible for women practitioners.²³⁵ Most traditional midwives learned their trade in apprentice-type situations from other midwives, like Sarah Stone, an early eighteenth century midwife, who was apprenticed for six years to her midwife mother.²³⁶

²³¹ J. Ballantyne, *The Byrthe of Mankind*, in P. Wilson, Ed., *Childbirth*.

²³² T. Reynald, *The Birth of Mankind*, Hood, Reyer and Timlins, London, 1654, p. 113.

²³³ V. De Brouwere, *The Comparative Study of Maternal Mortality over Time*.

²³⁴ J. Towler, *Midwives in History and Society*, p. 43.

²³⁵ A. Wilson, *The Making of Man-midwifery*; J. Carter, T. Duriez, *With Child; Birth through the Ages*, Mainstream Publishing, Edinburgh, 1986; J. Donnison, *Midwives and Medical Men*.

²³⁶ S. Stone, *A Complete Practice of Midwifery*.

Sir Richard Manningham set a precedent for female students when he offered instruction at a short-lived 'charitable infirmary' in London in 1739.²³⁷ By 1773 women midwives were also receiving instruction at the Rotunda Hospital in Dublin,²³⁸ but, particularly in rural areas, there was a lot of ignorance, among both female and male midwives. Donnison, who examined the relationships between women midwives and men midwives, wrote:

There was... no guarantee that any man setting up as a man-midwife, whether medically qualified or not, really understood his business, any more than there was for the women in this work. Without doubt male practice at its worst was as bad as that of the most ignorant midwife.²³⁹

British Traditional Midwifery Practice

Seventeenth century British midwifery practice is exemplified in the first British midwifery textbook, a practice manual written in 1671 by the English midwife, Jane Sharp, who published a practical book of midwifery informed by previous European writings.²⁴⁰ Sharp acknowledged that many English seventeenth century midwives were uneducated and without anatomical knowledge.²⁴¹ She stated that she had "often sate down sad"²⁴² when contemplating what women endured at the hands of midwives with little, if any training or knowledge of anatomy. Because of this she spent much time in her book describing male and female anatomy and physiology.

Describing the blood vessels in the umbilical cord and within the umbilicus at some length, she explained the contemporary view that the blood vessels join those of the mother in the womb. Recognizing that the twisting of the umbilical cord helped protect it from compression, she wrote detailed informative instructions on how and when the cord should be cut following the birth of the baby. Cutting the cord was viewed as helpful as it "keeps the blood and spirits in." How and when it was done was a measure of a skilled midwife. The time to do it was "so soon as the Child

²³⁷ J. Carter, T. Duriez, *With Child*.

²³⁸ O. Browne, *The Rotunda Hospital 1745- 1945*, E & S Livingstone, Edinburgh, 1947.

²³⁹ J. Donnison, *Midwives and Medical Men*, p. 12.

²⁴⁰ E. Hobby, Ed., *The Midwives Book*.

²⁴¹ J. Towler, *Midwives in History and Society*.

²⁴² J. Sharp, in E. Hobby Ed. *The Midwives Book*, p. 164; Hobby has simplified some of archaic spelling to make the book more readable.

is born”²⁴³ but Sharp acknowledged that the cord is important so the mother can give the baby blood and recommended that the midwife assess whether the baby is strong or weak immediately it was born. If the baby was weak “you must gently put back part of the vital and natural blood into the child’s [sic] body by the Navel, for that will refresh a weak child”.²⁴⁴ Sharp had seen this technique revive babies that had seemed to be stillborn.²⁴⁵

Sharp discussed the difference of opinion between midwives and “Physicians” regarding where the cord must be cut (quoting various writers’ opinions and some superstitions linking the length of the cord to the length and size of men’s and women’s reproductive organs). How to “bind the Navel-string with a strong ligature” and cut it with something sharp so that it was neat, but not too close to the ligature so that it did not “unloose”²⁴⁶ was explained. Sharp recommended covering the cord stump with a little lint or cotton to keep it warm and discussed some topical applications that could be used. She then gave advice on what to do if the secundine did not come:

Women are in great danger if not more, after the young is born, but beasts are not; the Caule or inward chamber of the womb the child did lye in, stayeth oftentimes long after the child is born, which should presently follow it, and when it so happens, if it begins especially to corrupt as it will soon do, it causes grievous pains and sometimes death, wherefore make haste to drive it forth, but be sure the means you use be very gentle, for the woman is now grown weak and her womb is quick of feeling but the *secundine* is dead, let the quick then cast forth the dead.

Midwives long nails may do mischief, I grant delays are dangerous, for if it be retain’d until it corrupt, it will cause Feavers, Imposthumes, [Abscesses], Convulsions and such like; know this, that what brings away the birth, will also do good to cast forth the afterbirth; then comfort the woman, let her snuff up a little white *Hellebore* [winter rose] in powder to make her sneeze; but put the woman to as little trouble as you can, for she hath endured pain enough already.²⁴⁷

Sharp suggested non interventionist techniques to expel the secundine, and betrayed her concerns about the woman’s wellbeing, by asking the midwife to “be very gentle [...] comfort the

²⁴³ J. Sharp, in E. Hobby Ed. *The Midwives Book*, p. 102.

²⁴⁴ J. Sharp, in E. Hobby Ed. *The Midwives Book*, p. 102.

²⁴⁵ Comparison could be made with Midwife Dawn Holland’s experience on p. 233.

²⁴⁶ J. Sharp, in E. Hobby Ed. *The Midwives Book*, p. 102.

²⁴⁷ J. Sharp, in E. Hobby Ed. *The Midwives Book*, p. 167.

woman [...] she hath endured pain enough already”, and warning that “long nails may cause mischief” which they certainly could if used to peel the placenta from the wall of the uterus in a manual removal of the placenta.²⁴⁸

There is no mention of Sharp herself using the technique of manual removal of the placenta, nor the technique of cord traction, and in her discussion about the risks of retained placenta she, interestingly, did not mention haemorrhage, although she did talk about the potential for infection. In book V she discusses the woman’s “purgations” (lochia) and again later, in a list of childbirth complications that can occur, but in relation to bleeding in association with infection rather than primary haemorrhage associated with the birth.²⁴⁹ She considered that retained placenta in “beasts” did not endanger them – but commented that it was different for women.²⁵⁰

Stone’s text consists of case studies with reflective and critical comment and was printed in 1737. It reflects some of the changes taking place in midwifery practices. Stone criticised male practice, asserting that:

almost every young Man, who hath served his Apprenticeship to a Barber-Surgeon, immediately sets up for a Man-Midwife; altho’ as ignorant, and, indeed, much ignoranter, than the meanest Woman of the Profession.²⁵¹

Stone described incidences of extremely short umbilical cords [15cm] and their consequences, explaining how to safely deliver the baby. She also recognised and treated uterine inversion. She noted that some women seemed to be at risk of the condition, not necessarily because the practitioner had pulled too hard on the umbilical cord. It seems that putting some tension on the cord was recognised as a legitimate means of birthing the placenta but Stone did not describe her

²⁴⁸ There is a risk of perforating the wall of the uterus during any manual removal of the placenta which would be exacerbated if the operator had long fingernails.

²⁴⁹ J. Sharp, in E. Hobby (Ed.), *The Midwives Book*, p. 167.

²⁵⁰ Which, of course, raises the question of why is it dangerous for women but was not thought to be as dangerous for animals? This question would seem, even now, in the age of antibiotics, to be worthy of exploration

²⁵¹ S. Stone, *A Complete Practice of Midwifery*, p. XI.

normal practice, although she did describe manual removal of the placenta in a woman ‘flooding’ after the loss of a twenty-two week pregnancy.²⁵²

European Midwifery Practice

Late seventeenth and eighteenth century continental European midwifery practice is portrayed in Marland’s annotated translation of the memoirs of the Frisian midwife Catharina Schrader.²⁵³ Working as a midwife over many years, mostly in the Friesland town of Dokkum in the Netherlands, Schrader attended her last birth at the age of eighty-eight, in 1745. Her work as a midwife from January 1693 until the last birth in February 1745 is described in her memoirs, with added information from the notebooks she used to record the births and the financial aspects of her business. Catharina Schrader’s first husband was a barber-surgeon and it seems that from him she learnt various techniques in gynaecological and midwifery care. She differed from many of her colleagues in her ability to use instruments and to treat complicated cases; therefore her practice probably does not mirror that of all her contemporaries as she was often called on for help when the women were in ‘extremis’, which refutes the idea that no midwives were able or allowed to use instruments, at least in Europe.²⁵⁴

Schrader’s births were analysed, and show that at a time when men-midwives and surgeons aggressively managed the removal of the placenta, Catharina Schrader did not follow their example. Her notebook yields sixty-four cases of manual removal of the placenta, two per cent of the births she attended, even though she attended a high proportion of abnormal births. Kloosterman concludes that in about four per cent of the 3060 births attended by Schrader there were some manual manipulations recorded; leaving ninety-five per cent of the births she attended as spontaneous. In his analysis of maternal mortality amongst Schrader’s clientele he concludes that in five cases death “has to be attributed to a severe haemorrhage”, including two deaths from partially retained placentae following the birth of twins, two following total placenta praevia, and one from “loss of blood, together with shock by exhaustion, pain, and neglect”. In

²⁵² S. Stone, *A Complete Practice of Midwifery*.

²⁵³ H. Marland, *Mother and Child were Saved*.

²⁵⁴ H. Marland, *Mother and Child were Saved*.

this instance Schrader was called only when the woman was at death's door.²⁵⁵ These are very respectable statistics, especially when we consider that she had skills that caused her to be called upon when other midwives had given up, so the acuity of the cases that she attended could have been closer to that of a surgeon rather than of another midwife.

Man-midwifery

There were man-midwives, who, although interventionist at times, were supportive of nature. Sir Percivall Willughby "Gentleman", (1596 – 1685) wrote:

The midwife's dutie, in a natural birth, is no more than to attend, and wait on, nature, and to receive the child; and, (if need require) to help fetch the afterbirth [...] The afterbirth oft cometh of itself, yet it is not amisse to assist nature for the producing of it. [...] There be some midwives, that never offer to fetch the afterbirth, but suffer nature to expell it, and their women have done well.²⁵⁶

Sir Percivall Willughby²⁵⁷ was an example of a seventeenth century barber-surgeon turned man-midwife, who began practising midwifery at a time when a surgeon was called after a long labour to remove a dead baby so that the mother would live. According to Wilson,²⁵⁸ this phase, which lasted until about 1720, was not true 'man-midwifery' as the surgeons usually only saw complicated births. True 'man-midwifery' came into being with the use of instruments such as the forceps, the fillet, and later, the vectis, methods that could be used to deliver live, rather than dead babies.

At first men were supplementary to the female midwives, who were still seen as the appropriate birth attendants at normal births. But after the 1750s, man-midwives such as William Hunter, John Denman and others, sought to be seen differently, as men who attended births "in lieu of a midwife".²⁵⁹ Having the skill to do the work required for normal birth and for complicated births, they demonstrated that difference by seeking entry to the more prestigious London College of

²⁵⁵ G. Kloosterman, in H. Marland, *Mother and Child were Saved*, p. 31.

²⁵⁶ P. Willughby, *Observations in Midwifery*, Ed., H. Blekinsop, S.R. Publishers, Wakefield, 1972, p. 11.

²⁵⁷ He was also known as Sir Percival Willoughby.

²⁵⁸ A. Wilson, *The Making of Man-midwifery*.

²⁵⁹ A. Wilson, *The Making of Man-midwifery*.

Physicians. Now that they were practising as ‘midwives’, particularly for wealthier women, they were also in a position of being able to criticise the common childbirth practices that characterised English birth. From this time on man-midwifery grew quickly until “by the 1770s men had taken over the most lucrative sphere of practice – the deliveries of wealthy mothers – throughout the kingdom.”²⁶⁰

By the middle of the eighteenth century obstetric forceps were in use throughout Europe.²⁶¹ Men were practising midwifery freely and in competition with women. One of the most well-known of the man midwives was William Smellie (1695 – 1763), a Scotsman, who taught midwifery to separate groups of male and female students. From the material in his lectures he wrote his *Treatise on the Theory and Practice of Midwifery* in 1752 which was very influential, as would have been the learning he imparted to at least 900 male students, and an uncounted number of females. Smellie left a memorable and sobering description of postpartum haemorrhage (PPH), the major complication of the birth of the placenta:

This hazardous haemorrhage is known by the violence of the discharge, wetting fresh cloths as fast as they can be applied; from the pulse becoming low and weak, and the countenance turning pale; then the extremities grow cold, she sinks into fainting and if the discharge is not speedily stopped, or diminished, is seized with convulsions which often terminate in death.²⁶²

Smellie believed that the maternal end of the umbilical cord should not be cut if the baby was not crying, and that, in any case, the maternal end of the cord should not be ligated, believing that the blood could then drain away thus decreasing the size of the placenta and making it easier to birth. He advocated then pulling gently on the cord. If there was no result from that he entered the vagina to grasp the placenta and pull it out; if still not successful he proceeded to enter the uterus and manually remove the placenta. He acknowledged that the placenta could be left in place for several days but worried that if there was any inflammation the accoucheur would be blamed. When one thinks of the infection associated with manual removal of the placenta, waiting may

²⁶⁰ A. Wilson, *The Making of Man-midwifery*, p. 169.

²⁶¹ P. Rhodes, *A Short History*; Smellie wrote that an account of the use of forceps was published by Edmund Chapman in 1733 in: W. Smellie, *A Treatise*.

²⁶² W. Smellie, *A Treatise*, p. 402.

have been as beneficial as manual removal.²⁶³ Smellie fills six pages with instruction on methods of extracting the placenta but then adds:

For the most part, in ten, fifteen or twenty minutes, more or less, the *Placenta* will come away by itself; and although some portion of it, or of the membranes, be left in the *Uterus*, provided no great flooding ensues, it is commonly discharged in a day or two, without any detriment to the woman.²⁶⁴

He illustrates the variable nature of contemporary practice, and his own, by further commenting

I find that both among the ancients and the moderns there have been different opinions and directions about delivering the *Placenta*; some alledging, [sic] that it should be delivered slowly, or left to come of itself; others, that the hand should be immediately introduced into the *Uterus*, to separate and bring it away. Before we run into extremes of either side, it should be considered how nature of her-self acts in these cases: we find in the common course of labours, that not once in fifty or an hundred times there is anything more to be done than receive the child.²⁶⁵

Wilson asserts that most, but not all, female midwives of the day left the birth of the placenta to nature but that the men-midwives of the early eighteenth century practised very differently:

almost without exception they believed that the placenta should be removed manually, either by pulling on the umbilical cord or by putting the hand all the way into the uterus and taking hold of the placenta itself.²⁶⁶

Wilson posits that the reason for their attitude was because they were sometimes called to complications such as retained placenta or haemorrhage so from their perspective it made sense to remove the placenta as quickly as possible.²⁶⁷ One could consider it as an example of early prophylactic practice, and, like all prophylactic practice, it was probably unnecessary and problematic for the majority of women. Certainly, it is a different style of practice from that of the earlier practitioner, Willughby.

At the time that Smellie was practising and publishing his treatise, another was being produced by his competitor, Elizabeth Nihell, a successful London midwife who had trained at the Hotel Dieu in

²⁶³ Semmelweis, who identified the association between unclean hands and the transmission of puerperal fever, would not be born until 1818, and did not begin to associate clean hands with reduced rates of childbirth fever until 1847 so eighteenth century midwives, both male and female, were oblivious to the part interventionist practice played in introducing pathogenic organisms into the woman's uterus.

²⁶⁴ W. Smellie, *A Treatise*, p. 238.

²⁶⁵ W. Smellie, *A Treatise*, p. 239.

²⁶⁶ A. Wilson, *The Making of Man-midwifery*, p. 162.

²⁶⁷ A. Wilson, *The Making of Man-midwifery*.

Paris. Her *Treatise on the Art of Midwifery* produced in 1760 was aimed at promoting traditional female midwives. She cast scorn on male midwifery, including mounting a personal attack on Smellie, and on the obstetric forceps, naming them “weapons of death”.²⁶⁸

Parallel to this rise in man-midwifery, in the mid eighteenth century, was an upsurge in interest in providing hospitals for the poor. Foundling hospitals were being built, and ‘lying in’ (maternity) hospitals also began to be built, including the Rotunda in Dublin in 1745. The first ‘lying in’ beds attached to a general hospital in Britain were opened in 1747. Hospitals for the poor were already in existence in continental Europe (an example being the Hotel Dieu in Paris) and were also beginning to be built in America.²⁶⁹

Midwifery textbooks, likewise, were beginning to make their appearance in larger numbers. In 1769, in his textbook, Robert Wallace Johnston described the normal parturition of the placenta:

The birth of the child is usually succeeded by a gush of liquor amnii, and then by some clots of blood. In the space of ten or fifteen minutes, the patient commonly feels a little forcing pain, or uneasiness in the uterus; soon after which the placenta descends into the pelvis, and then presents at the os tincae, a little obliquely, that is with one edge a little downwards; at other times, especially if assisted, nearly transversely, the inside turning outwards; so that when it has arrived in the vagina, it is entirely inverted, and changed into a globular form, the root of the funis [umbilical cord] being near to the center of that part of it which advances first. As it comes through the vagina, it is preceded by clots of blood; and a few pains having brought it forth, the membranes being also inverted, follow it in conic form; for the aperture which was made when the waters broke, and through which the child passed, is now the part which comes last.²⁷⁰

Apart from the reference to possible assistance being given this description implied that interference would not be necessary to birth the placenta. But in the section “Assistance required in natural childbirth,” Johnston explained how to ligate the “funis” about two inches from the navel while warm “linnen” was applied to the mother to prevent a rush of cold air into the uterine cavity potentially causing injury to the “patient”. He suggested the attendant “wait a little for the approach of the placenta” but then added:

though, in many cases, the secundines may come away by the natural effort of the mother alone [...] yet, as the time required for this purpose might often be so long as to subject her to a cold, or to a flooding

²⁶⁸ E. Nihell, 1760, cited in P. Rhodes, *A Short History*, p. 46.

²⁶⁹ P. Rhodes, *A Short History*.

²⁷⁰ R. Johnson, *A New System of Midwifery*, Author, London, 1769, p. 191.

[haemorrhage], or to some other inconveniency, an early assistance becomes necessary; not only to prevent such evils, but to relieve her from anxiety, as soon as her delivery can be effected with safety.²⁷¹

The mother, who has now become both a “mother”(above) and a “patient” (below), would have been lying in a supine position and would be unlikely to be holding her baby. Johnson suggested that half an hour should be allowed, but that usually fifteen minutes was all that is needed “to permit the uterus to contract by degrees.” Having advised waiting, he seems to contradict himself,

As soon as the funis has been tied and divided, and the child is given to an assistant, the patient must be instructed to compress her abdomen with both her hands, as equally as she can, descending from the epigastric to the umbilical region. When this pressure has been made about ten minutes, she may fetch a deep breath, retain it, and force down, while the operator assists as follows: Having taken hold of the funis, without the labia pudenda, with his left hand (either by rolling it about one finger, or any otherwise) he must then put one or two fingers of the right hand into the vagina, and place their ends against the funis, as high as he finds necessary, to keep that part of it back in the center of the pelvis (or rather behind it) whilst, with his other hand, he pulls the other part externally.

When this extention [sic] of the funis has been continued for about half a minute, he must then desist: but the compressure on the abdomen must still be continued. In about three or four minutes (or sooner if a forcing [contraction] comes on) he must extend the funis again; and when this has been repeated once or twice, the compressure on the abdomen must be made lower; as for instance, more directly upon the hypogastric region; by which means, the placenta will generally come forth in about ten or fifteen minutes from the birth of the child, unless its adhesion be very firm; if it is the uterus may be felt bulky towards the umbilical region; and therefore, one hand of the operator must be applied now instead of the patient’s, on the outside of the abdomen, to make as equal a compressure upon the uterus as he can and to bring its fundus down at the same time towards the pubes; while the funis is tightened below with his other hand.²⁷²

Johnson continued in this mode, explaining his version of delivering the placenta and membranes by cord traction, he advised taking time to draw the membranes slowly out to ensure no remnants are left behind “occasioning ... a fever; a great uneasiness in the region of the pelvis; and an extremely foetid discharge from the uterus, by the irritation and putrefaction.”²⁷³

Johnson described the insertion of the hand into the uterus to manually remove the placenta when it did not respond to cord traction and the constriction ring that was sometimes found. He gave three reasons to perform manual removal of the placenta:

²⁷¹ R. Johnson, *A New System of Midwifery*, p. 199.

²⁷² R. Johnson, *A New System of Midwifery*, p. 200.

²⁷³ R. Johnson, *A New System of Midwifery*, p. 201.

first, a flooding; secondly, a firmer adhesion of the placenta to the uterus, than what is most natural or usual at this time; and thirdly, a particular constriction of the uterus itself.²⁷⁴

It is noted by the researcher that whether manual removal of the placenta, or cord traction was being used, there was a readiness by most practitioners to insert the hand into the vagina, which would have increased the risk of infection. In his decision-making regarding whether or not to intervene Johnson asked the time-honoured question still strongly influencing maternity care today: “and besides, how will the operator be acquitted of blame?”²⁷⁵

John Aitken wrote notes for his students at the Royal Infirmary in Edinburgh in 1786 that showed that he expected that the process of the birth of the placenta might take some hours:

The placenta, already somewhat disengaged, before the child be expelled, is gradually loosened entirely, and thrown off by the uterine contraction chiefly. [...] This is effected with various expedition; most commonly within an hour or two; and is succeeded by a discharge of blood, often exceeding the quantity previously effused [...] This haemorrhage gradually subsides and for the most part disappears within two or three days. It is termed lochia, and lochial flux, and by women the cleansing.²⁷⁶

He favoured a noninterventionist approach, stating “There ought to be as little interference as possible. Officiousness is not only odious, but injurious.”²⁷⁷ He gave a range of positions that the mother may have wished to assume, including upright positions.

In his Treatise written in 1793, Charles White, another well-known man-midwife, was also reasonably moderate in his approach to the birth of the placenta. He believed in waiting for the umbilical cord to stop beating before dividing it so that the placenta would come away more easily, having given its blood to the baby. He critiqued the current three “modes of practice” in use in his day:²⁷⁸

²⁷⁴ R. Johnson, *A New System of Midwifery*, p. 201

²⁷⁵ R. Johnson, *A New System of Midwifery*, p. 201

²⁷⁶ J. Aitken, *Principles of Midwifery, or Puerperal Medicine*, J. Murray, London, 1786, p. 60.

²⁷⁷ J. Aitken, *Principles of Midwifery*, p. 63.

²⁷⁸ C. White, *Treatise on the Management of Pregnant and Lying In Women and the Means of Curing, but More Especially Preventing the Principle Disorders to which they are Liable*, Isaiah Thomas, Massachusetts, 1793, pp. 69, 70.

There are some who contend for the manual extraction, immediately after the birth of the child, in all cases indiscriminately. There are others who leave the business entirely to nature, in every case whatsoever; and there is yet a third class, who pursuing a middle course, try gentle methods for a while, and upon the failure of these proceed to manual extraction. [...] The first of these has now the fewest advocates, for certain pain and danger must attend the operation and in almost every case, the odds are great that it is totally unnecessary. The second is supported by professors of great abilities and experience; but the secundines sometimes acquiring a great degree of putridity, by retention for many days in the uterus, or not coming away at all, but occasioning putrid fevers, and sometimes floodings so violent as to bring on the patient's death, these reasons, arising from the retention not only to the patient but her friends, have very justly prevented this mode from being generally adopted.

The disadvantage said to attend the last method is this; by waiting an hour or two, you lose the opportunity of extracting the secundines, the womb contracting, either at its mouth, or across its middle, like an hourglass, by which contraction, laceration is endangered if the hand be forced into the uterus.²⁷⁹

White believed the key to successfully managing the birth of the placenta was to deliver the child very slowly, giving time for the shoulders to rotate (not always done at that time), stating "This improper and too hasty delivery of the shoulders, in natural labours often occasions the retention of the secundines, and is in some measure the cause of after-pains." He suggested that if the placenta has not been born within eight to ten minutes of the birth of the child, during a contraction, the "secundines will be easily extracted by gently pulling on the navel string, and here an easy pressure on the abdomen, by assisting the uterus to contract, will be of service." He continued by saying that if the placenta is very large a finger can be introduced to "bring down one edge of it as soon as it is within reach." He added that the patient should remain in a horizontal position. White also commented that in nature the umbilical cord would not be cut straight away and that there would be no ill-effect to mother and baby by waiting until the afterbirth was born before cutting it. He finished by drawing the following conclusions:

1st. Putrid fevers, floodings, and death, have been occasioned by retentions of the secundines.

2dly. Floodings occasioned by a retention of the secundine generally cease by a timely removal of it.

3dly. The manual extraction of the placenta should never be attempted whilst there are any spasmodic contractions either in the neck or across the middle of the womb.

4thly. Opiates will generally remove the contractions.

5thly. Though many cases have happened when the placenta has remained some days in the uterus after the delivery of the child, without manifest injury, yet it is not generally safe for a woman to be left by the accoucheur before it is removed.

²⁷⁹ C. White, *Treatise on the Management of Pregnant and Lying In Women*, pp. 69, 70.

Lastly. When every part of the child is expelled solely by the contractile power of the uterus, in such a manner that the shoulders are permitted to make their proper turns, the woman having been kept in a horizontal position, and the cool regimen having been strictly observed,²⁸⁰ there will seldom or never be occasion for the manual extraction of the placenta.²⁸¹

Thus, White reinforced his preference for the horizontal birthing position.²⁸²

Pitfalls in Practice

The case studies in the medical journals and textbooks prior to the nineteenth century portray a variety of practices. The written evidence of intervention in the medical texts suggests that male midwives were inclined to intervene more readily in the management of placental birth than traditional female midwives. When analysed using the current study's theoretical model it is obvious that these practices were suboptimal. Practices such as manual removal of the placenta are painful, and would increase the stress of the birth for the woman further decreasing the adequacy of her hormonal responses and consequently the uterine contractions necessary for the prevention of bleeding and the expulsion of the placenta.²⁸³ Many British women suffered severe birth complications due to rachitic pelvic deformities caused by lack of Vitamin D from poor nutrition and lack of exposure to sunlight.²⁸⁴ Lack of Vitamin A has also been implicated as reducing women's capacity to resist infection.²⁸⁵

Wilson contends that, at first, the men-midwives did use too much intervention in normal birth, reasoning that because they had usually only been exposed to complications, they did not have the knowledge of the normal that the female midwives, who, in his view, had protected women against early intervention, possessed. He asserts (although Johnson's text does not appear to support this premise) that in the early days the men did intervene too often particularly in

²⁸⁰ The 'cool regime' relates to White's preference for a cool room for labour.

²⁸¹ C. White, *Treatise on the Management of Pregnant and Lying In Women*, p. 220.

²⁸² C. White, *Treatise on the Management of Pregnant and Lying In Women*.

²⁸³ C. Naaktgeboren, *The Biology of Childbirth*.

²⁸⁴ J. Carter, T. Duriez, *With Child*.

²⁸⁵

malpresentations, twins and with the birth of the placenta. As time went on and the men, like the women midwives before them, learned the normal by attending normal births, their practice changed and had become much less interventionist by the latter part of the eighteenth century.²⁸⁶ The advent of the obstetric forceps certainly gave men an advantage in cases of obstructed labour and, therefore, as they were called upon for help by midwives in instances when the case appeared hopeless they came to be seen as the 'saviours' of women and babies. There were, however, also consequences for mothers and babies of over-zealous use of the forceps, leading to Nihell's description of them as 'weapons of death'.²⁸⁷

While Schrader's seventeenth century practice does appear to have been relatively non-interventionist in comparison to other practitioners, this conclusion may be simply based on the lack of written material describing traditional midwifery practices compared to the freely available texts written by men. Sir Percivall Willughby who supported midwives, his daughter being one, constantly criticised the interference in the process of normal birth by some midwives, giving numerous examples of practices of which he disapproved:

July the seventeenth, Anno 1668, Anne Bonsall of Dunnington, in Leicestershire, had an ignorant, torturing midwife. She came to her at four in the morning. All or most part of that day shee kept this travailing woman kneeling or sitting on a woman's lap, ever pulling and bruising her body, oft thrusting her hand into the woman's body [...] I found the woman kneeling, and her midwife working; and, for shee had been much afflicted, and was weake, and her body swel'd, and torn, and discoloured by her haling [?hauling], and pulling to dilate the parts, I caused her to be laid on her bed, to give her some intermitting ease, for that the birth seemed too far off.²⁸⁸

He wrote his 'Observations in Midwifery' for the benefit of midwives but it was not published until 1830. In it, he admonished the midwives:

Let me perswade [sic] and intreat the midwife, not to torment the poore woman, at the first coming of her pains, by putting her to kneel, or to sit on a woman's lap, or on the midwife's stoole, but suffer her to walk gently, or lie down on the truckle bed, having a warme closier to her body, and her cloths wrapped close about her, keeping her in a moderate temperature, not too hot, or too cold, but so, as shee may well endure.²⁸⁹

²⁸⁶ A. Wilson, *The Making of Man-Midwifery*.

²⁸⁷ J. Carter, T. Duriez, *With Child*, p.72.

²⁸⁸ P. Willughby, *Observations in Midwifery*, p. 133.

²⁸⁹ P. Willughby, *Observations in Midwifery*, p. 14.

Although he did suggest traction on the umbilical cord, Willughby's instructions to midwives, although intrusive by today's standards, also demonstrated a belief in nature's ability to separate the placenta:

So soon as the child is born, let the midwife fetch the after-birth, the navel-string will guide her to it, by which she may gently move the after-birth from side to side, to make it separate from the womb through that motion. It usually descendeth with the child, and lyeth in the vagina uteri (the sheath of the womb) like a loose handkerchief in one's pocket. Let the midwife gather it leisurely into her hand, and hold it gently, without squeezing, then cause the woman to cough, sneeze, or boken, and whilst she is so doing, let the midwife slightly draw it away. This coughing and sneezing or bokening, by pressing the belly together, doth of itself, thrust forth the midwife's hand, and the afterbirth.²⁹⁰

He then informed the midwives how to show another woman how to "lay her flat hands on the sides of the women's belly and navel, and gently to press them together, and to stroke her belly downward, whilst that she draw the afterbirth from her." This method appears, perhaps, a little gentler than, but similar to, Johnson's. Where Willughby's advice differed from Johnson's is in the treatment of a retained placenta.

Sometimes the placenta does not descend into the vagina uteri, but is retained in the body of the womb, and this will prove difficult and troublesome to the midwife to fetch, and few know how to do it, and they had better to let it alone, un fetched, than to keep much struggling in the woman's body. Nature, with time, will expel it, with the giving of such medicines as enforce the birth, and keep open the womb.²⁹¹

He explained how to open the cervix if it was closed to get the placenta out, but using cord traction rather than manual removal, and further explained that the "after-burden is easiest drawn forth when the woman kneeleth."²⁹²

Uterine massage prior to and during the birth of the placenta is likely to have increased the number of incidents of retained placenta. The placenta becomes trapped by a uterine constriction ring, termed an hour glass contraction, brought on by overstimulation of the uterine muscles. This can cause heavy bleeding due to partial separation of the trapped placenta.²⁹³

²⁹⁰ P. Willughby, *Observations in Midwifery*, pp. 26, 27.

²⁹¹ P. Willughby, *Observations in Midwifery*, p. 28.

²⁹² P. Willughby, *Observations in Midwifery*, p. 28.

²⁹³ Dr. Watson, *The Australian Medical Gazette of 1881-82*, quoted in F. Milford, *The Australian Midwife's and Nurse's Handbook*, Heidelberg and Sydney, Australia, 1906. pp. 167, 168; J. Donnison, *Midwives and Medical Men*, p.48.

Despite Johnson's claim to have seen few uterine inversions, an increase in its incidence would be expected as the uterus was totally unsupported during the process of cord traction, coupled with uterine massage or the "compressure" employed at that time. Hour glass contraction and uterine inversion, where the uterus is pulled inside out, are both dangerous and life threatening. That they occurred is demonstrated by increasing reports of them in medical literature, particularly that of the nineteenth century when journals such as the *Lancet* became available as a means for practitioners to share their experiences.

Tracing the historical use of birthing stools, Amanda Banks cites *The Encyclopaedia Britannica* of 1771 as exemplifying contemporary benign and non-interventionist midwifery practice in its definition of midwifery as "the art of assisting nature to bring forth a perfect foetus, or child from the womb of the mother." Banks states "that intervention was rare and usually undertaken in the case of an impossible delivery, or the death or near death of the mother or child in utero."²⁹⁴ Her assertion that usual midwifery practice would have been non-interventionist is questionable. Then, as now, there would be good and bad, ignorant, and learned, among the men and women practising midwifery, and their practices would have been well-intentioned but variable, and sometimes interventionist. This is demonstrated by seventeenth century man-midwife Sir Percivall Willughby's pleas for non-interference by midwives, particularly to do with the use of fundal pressure to expedite labour, and the rupturing of amniotic membranes resulting in 'dry labours', prolapsed limbs and umbilical cords.²⁹⁵ Jane Sharp's comments in 1671, that there were many ignorant midwives practising at that time, her written warning to other midwives about their practices, and her expression of sadness at what she had seen, along with Sarah Stone's case studies, also support the view that many midwives were interventionist.²⁹⁶

The literature around eighteenth century birth practices holds a mix of non-interventionist and interventionist practices that move across the spectrum of male and female midwifery, and, other

²⁹⁴ A. Banks, *Birth Chairs*, p. 5.

²⁹⁵ J. Towler, *Midwives in History and Society*.

²⁹⁶ J. Sharp, in E. Hobby Ed., *The Midwives Book*; S. Stone, *A Complete Practice of Midwifery*.

than the use of instruments, are not necessarily specific to either group, although manual removal of the placenta was practiced more readily by male practitioners.

Increasing Puerperal Sepsis

Despite the dangers associated with the birth of the placenta, it must be acknowledged that over the eighteenth century maternal mortality was reported to have fallen. According to Wilson,

probably from about 13.5 to 7 deaths per 1000 births in rural areas, and from 17 to 10.5 in London [...] If male practitioners did have such an effect this was not necessarily in the role of midwife, for it could have arisen from a changed emergency practice. To a large extent, albeit unevenly, the forceps probably displaced the crotchet in rural general practice between about 1750 and 1800.²⁹⁷ This doubtless saved significant numbers of infant lives, reduced the incidence of prolonged obstructed labour, and thus cut down one source of serious risk to mothers. But other influences such as diet (affecting the size and shape of the mother's pelvis) and general hygiene (influencing women's exposure to puerperal infection) will have been at work.²⁹⁸

Donnison, however, points out the lack of credible records, casting doubt on the validity of such a claim. Lack of cleanliness, lack of knowledge of asepsis, and common use of instruments and of intrusive techniques such as manual removal of the placenta with its attendant risks of uterine damage and infection, contributed to the mortality and morbidity associated with puerperal fever over the next two centuries. Sepsis became the most common reported cause of maternal mortality in the nineteenth century.²⁹⁹

Asepsis had not been discovered and it was a 'badge of honour' for medical men to wear the physical signs of their profession on their clothing.³⁰⁰ There were no effective protective gloves,³⁰¹ and the man-midwives would not have had their hands in water as much as the women practitioners who, at least, appear to have used water for washing linen and baby and mother during the process of birth. The hands of the attending women are likely, therefore, to have been cleaner than those of the male practitioners, particularly as man-midwives were also sometimes

²⁹⁷ The crotchet is a blunt hook used to deliver a dead baby to save the woman's life.

²⁹⁸ A. Wilson, *The Making of Man-midwifery*, pp. 202, 203.

²⁹⁹ J. Donnison, *Midwives and Medical Men*.

³⁰⁰ P. Rhodes, *A Short History*; M. Thompson, *The Cry and the Covenant*.

³⁰¹ J. Liston, *Answers to Correspondents, The Lancet, Vol. 1, May, 1871*.

barber surgeons, moving between potentially infected surgical cases, and even post mortem examinations, and labouring women.³⁰²

The Advent of Horizontal Birth

The most profound change in practice which accompanied the medicalisation of childbirth was that of women using a horizontal position for birth instead of remaining upright. Prior to the eighteenth century it was unusual for European women to give birth lying down. In most places women preferred to be upright and supported for birth.³⁰³ In villages in southern Europe, for instance in Serbia, squatting was still the norm even in the 1950s:

The actual delivery is achieved in a squatting position, and the mother is washed and put to bed. The infant is washed and warm lard is rubbed gently on his head; he is swaddled [...] and tucked into bed beside his mother. She is permitted to rest awhile, and usually within three days is up and attending to all but her more strenuous chores.³⁰⁴

According to Banks most women preferred to kneel, squat, or to birth sitting on an attendant's lap, the precursor to the use of the birthing stool, or 'midwife's stool'. Banks demonstrates how the low stool, originally designed as an aid for the woman, changed over time to birthing chairs and beds designed to give obstetricians and gynaecologists optimal access to the woman.³⁰⁵

In Britain in the seventeenth century, it appears that nature and maternal choice may have been ceded to the midwife. The practitioners appear to dictate the birthing position; postures for birth varied from place to place depending on their beliefs. Wilson explains that in the Midlands kneeling was the norm, a stool was popular in London and in Taunton standing births were common, while in Manchester the birthing woman used another woman's lap as a birth stool.³⁰⁶

Willughby did not like women to be over-controlled by their midwives, he wrote:

let her now and then (if shee please) [sic] walk gently in her chamber, or to lie quietly on her bed until Dame Nature shall will her to lie on her bed or come to her knees, for her more quick and easy delivery.

³⁰² P. Rhodes, *A Short History*.

³⁰³ J. Gelis, *History of Childbirth*; A. Banks, *Birth Chairs*.

³⁰⁴ J Halpern, *A Serbian Village*, Columbia University Press, New York, 1958, p. 201.

³⁰⁵ A. Banks, *Birth Chairs*.

³⁰⁶ A. Wilson, *The Making of Man-midwifery*.

If the woman bee weak, a pallet bed may be thought the most convenient place. But if she bee strong, and of an able body, and the child lively, I then know no cause contradicting, why she may not bee as well, or rather better kneeling on a bolster (than lying in a pallet-bed) when that her body is fitted for birth [...] I have advised some women, that have formerly suffered much bitterness and pain by their hasty midwives' proceedings, not to bee too forward to thrust themselves into their midwives' hands, and not to let the midwife force them to sit on her stoole, or woman's lap, or come to their knees, nor to touch them.³⁰⁷

These words, written by Willughby, support a natural approach to birth. He attended births dressed as a woman so that he could assist his daughter at complicated births.³⁰⁸ He supported an upright position, the kneeling position, for birth but disliked the 'Midwife's stoole':

In a natural birth the laboring woman, kneeling at a convenient and fitting time, in a bending posture, holding her hands about anither [sic] woman's neck, that sitteth afore her, having a pillow laid upon her lap, upon which the laboring woman rests her belly, in this bending position, and more than if she did sit on a woman's lap, or on the midwife's stoole, for that the birth will be pressed somewhat forward by the pillow and her own thighs, and through this bending posture, shee will bee speedier delivered, leaving the midwife nothing more to do, than to receive the baby.³⁰⁹

His dislike of the supine position for birth and of the midwife's stool was expressed clearly:

Several midwives (chiefly about London) use Midwives Stools; many in the country make use of a bolster stuffed with straw. Others, in several places make use of both. For a woman to lie on her back, on her bed, is an unnatural birth, or to use a Midwife's Stool is not so convenient, as to kneel on a bolster [...] the placing of a woman in a fitting posture doth much to facilitate birth. A Midwife's Stool is good for little, or, rather, for nothing, yet severall [sic] women do highly recommend them.³¹⁰

Willughby asserted that the placenta and membranes were also delivered more easily if the woman knelt and caused more problems if the woman birthed on her back.

It was troublesome to fetch the after-burden as shee [sic] lay on her back. She was put to her knees, and then it was obtained easily, and so shee was then removed into another bed.³¹¹

Willughby taught that the placenta usually descended into the vagina with the baby but if it was slow to come he encouraged the midwife to move the cord from side to side to encourage the birth of the placenta, or, if necessary, to enter the uterus to manually remove it.³¹²

³⁰⁷ P. Willughby, quoted in J. Towler, *Midwives in History and Society*, p. 76.

³⁰⁸ J. Towler, *Midwives in History and Society*.

³⁰⁹ P. Willughby, *Observations in Midwifery*, p. 308.

³¹⁰ P. Willughby, *Observations in Midwifery*, p. 307.

³¹¹ P. Willughby, *Observations in Midwifery*, p. 33.

Eighteenth century midwife Sarah Stone displayed tolerance for women's wishes, while expressing her preference for the bed for birthing:

I put the woman on the stool, which is what she chose; for I think it best for Midwives to advise their Woman on the safest way of Delivery; which, in my opinion, none so good as the bed: (and next to that the Stool) yet I don't approve of compelling Women to any particular place against their inclinations.³¹³

Stone may have wanted the woman to kneel on the bed, but might have been influenced by the trend toward horizontal birthing. While Stone's preference is for the woman to be on the bed for birth it becomes obvious in her writings that women and other midwives did not share her views, as the women she described were commonly birthing in an upright position.³¹⁴

William Smellie commented in 1752 that

In almost all countries, the woman is allowed either to sit, walk about, or rest upon a bed, until the *os uteri* is pretty much dilated by the gravitation of the waters, or (when they are in small quantity) by the head of the *foetus*, so that delivery is soon expected; then she is put in such position as is judged most safe, easy, and convenient for that purpose: but the patient may be put upon labour too maturely, and bad consequences will attend such mistakes.³¹⁵

The words, "allowed" and "patient" and "put" suggest a measure of lack of autonomy for the woman, who does not appear to be able to choose an instinctive position close to the birth. Smellie then mentions the different birth positions including the high stool used in Egypt, Greece and Rome, the chair used in Germany and Holland, and various positions such as a low stool, a woman's lap, kneeling, and the positions used in France and London, describing the left lateral position used in London as "very convenient".³¹⁶ This inability to be freely mobile, coupled with the stress caused by painful, intrusive manoeuvres creates very suboptimal birthing conditions when measured against the theoretical model.

³¹² P. Willughby, *Observations in Midwifery*.

³¹³ S. Stone, *A Complete Practice of Midwifery*, pp. 46, 47.

³¹⁴ S. Stone, *A Complete Practice of Midwifery*.

³¹⁵ W. Smellie, *A Treatise*, p. 198.

³¹⁶ W. Smellie, *A Treatise*.

Surgeon and obstetrician Charles White (1728 – 1815) was against the then common over-heating of the labour room and of the mother and baby.³¹⁷ While he was unusual in recommending that following the birth the women should spend time sitting up in bed, and indeed be able to get up soon after the birth to aid the flow of lochia, White certainly did not question the woman remaining supine for the birth itself:

As soon as she is delivered if she is a person in affluent circumstances, she is covered up close in bed with additional clothes, the curtains are drawn around the bed and pinned together, every crevice in the windows and the door is stuffed close, not excepting even the keyhole [...] She is confined in the horizontal position for many days together, whereby both the stools and the lochia are prevented from free exit [...] the lochia, stagnating in the womb and the folds of the vagina, soon grow putrid.³¹⁸

His preference was for the woman to be upright in early labour but horizontal for the birth, a position that became so popular in Britain that by the nineteenth century it had become known as the 'English position'.³¹⁹ White was happy for the woman to take up any position for the labour, finding different positions adopted by the mother helpful, but not for the actual birth:

but I would by no means advise that the child should, in any case whatever, be born, or the placenta extracted in any of these positions. Very hasty deliveries, especially in such positions, are often of dangerous consequence, frequently occasioning laceration of the perineum and sphincter ani, prolapses of the vagina and anus, inversions of the uterus, retention of the secundines, floodings, after-pains, syncope, fainting, and death itself.³²⁰

White's view is in strong contrast to Willughby's belief that the placenta was born more easily from an upright position, preferably a kneeling position.

Banks suggests that the use of the upright birth positions require the accoucheur to be physically seated or kneeling at a low level to assist with the birth of the baby. She posits that man-midwives preferred women to be higher so that they did not need to work from that lowly position. She traces the evolution of the low birthing stool to the higher birthing chair, and to the bed, that paralleled the rise in man-midwifery.³²¹ Gendered notions of social superiority would not permit

³¹⁷ C. White, *Treatise on the Management of Pregnant and Lying In Women*.

³¹⁸ C. White, quoted in J. Carter, T. Duriez, *With Child*, p.108.

³¹⁹ J. Carter, T. Duriez, *With Child*.

³²⁰ C. White, *Treatise on the Management of Pregnant and Lying In Women*, p. 83.

³²¹ A. Banks, *Birth Chairs*.

men to sit in a lowly position before women, and therefore they developed other ways of practising that reinforced the woman's inferior position by placing her in a vulnerable situation.

It is possible that traditional midwifery practice, with the midwife seated or kneeling before the woman, would have lessened the rate of some of the complications that were described by White when discussing upright birth. There is a difference between a sudden unexpected birth from an upright position and one which is being facilitated by an attendant.

By the eighteenth century birth in bed had become common, certainly it was so when physicians were attending births. This is very apparent in the eighteenth and nineteenth century textbooks and in nineteenth century medical journals when physicians discuss their 'cases', and their belief that women should remain supine for birth and for some time, even days, afterward.³²² Towler suggests that the term 'brought to bed' that came into common usage in the early eighteenth century among the gentry would infer that "this class abandoned the birth chair for the bed when they abandoned the traditional midwife for the male accoucheur".³²³

Delayed and Limited Mother-baby Contact

A practice, traditional rather than 'medical', that also had the potential to impact negatively on the ability of the mother to efficiently birth the placenta, was the ritual cleansing of the baby that took precedence over the baby being given to the mother.³²⁴ This tradition caused mother-baby contact and the initiation of breastfeeding to be delayed: "the midwife would first check that her hasty ligature held firm; then she would see about cleaning out its stomach and purging it, washing it and clothing it."³²⁵ Maternal contact with baby was customarily limited and indeed delayed as the washing and cleansing of the baby was very thorough. Wilson stresses also that an

³²² R. Johnson, *A New System of Midwifery*.

³²³ J. Towler, *Midwives in History and Society*, p. 101.

³²⁴ For a discussion of the practice of delaying mother and baby contact, see: M. Odent, *Childbirth in the Age of Plastics*, pp. 39 – 41.

³²⁵ J. Gelis, *History of Childbirth*, p. 173.

important task for the midwife was that of swaddling the baby, “after which the baby would be shown to the mother.”³²⁶

One can understand why breastfeeding was commonly left until after an exhausted mother had rested, but it was not uncommon for babies to be “over-wrapped” and not be fed for four or five days.³²⁷ So a practice was forming in which a woman is lying supine during and following birth and not holding or breastfeeding her baby in the first hours; a situation counterproductive to a woman’s physiological ability to birth her placenta. In the case of an upper class woman, a wet nurse was frequently employed to nurse the baby so the birth process would have been further physiologically disadvantaged.³²⁸

Smellie outlined care of the baby following birth, including methods of resuscitation, and mentions delaying the cutting of the umbilical cord if the baby was not breathing or crying. He detailed the washing and purging of the baby, keeping it warm, what the child should be dressed in and care of the umbilicus. He also outlined the requirements for a wet nurse and described alternative foods that could be used for the baby. Although he commented that mothers who suckle their young recovered more quickly from the birth, there was no mention of how soon the baby should be given to the mother.³²⁹ Charles White was quite unique when, contrary to normal practice, he recommended that the baby be breastfed soon after birth and at least four or five times a day.³³⁰ Gelis points out that traditionally, when the baby’s care was complete, the midwife would then turn her attention to the mother and complete washing, bandaging her abdomen and dressing her, further delaying her contact with her baby.³³¹ Smellie details the aftercare of the

³²⁶ A. Wilson, *The Making of Man-midwifery*, p. 26.

³²⁷ P. Rhodes, *A Short History*. T. Harris, *Birth: The Surprising History of how we are Born*, Atlantic Monthly Press, New York, 2006.

³²⁸ J. Carter, T. Duriez, *With Child*.

³²⁹ W. Smellie, *A Treatise*.

³³⁰ C. White, *Treatise on the Management of Pregnant and Lying In Women*.

³³¹ J. Gelis, *History of Childbirth*.

mother and how the abdominal binder should be placed in an effort to reduce blood loss from the uterus, and fainting by the mother.³³²

Delays in giving the baby to the mother and initiating breastfeeding would have reduced the natural hormonal responses of the mother,³³³ particularly the production of natural oxytocin. Oxytocin is the hormone that causes the uterine contractions that normally separate the placenta and membranes from the uterine wall and then contract the empty uterus, thus preventing bleeding from the open placental site, and decreasing the risk of postpartum haemorrhage.³³⁴

Increasingly, midwives were being used by the poor, and therefore, having a doctor present at birth was becoming a mark of status.³³⁵ Richer women in society were more likely to both use the services of a wet nurse, and to afford the services of a physician. It is possible that the physiologically detrimental practices of horizontal birth, and delayed and diminished baby contact and breastfeeding, would therefore have particularly affected the upper echelons of society rather than the lower socio-economic groups where traditional practice would be more likely to persist. Interestingly, a survey of maternal deaths in the first month following birth in the seventeenth century showed that the poor, more primitive groups in society “did best in childbirth.”³³⁶

Because fashion affects childbearing,³³⁷ the practices used had the potential to have moved through to the lower classes, but traditional birthing did persist,³³⁸ and some women settlers used

³³² W. Smellie, *A Treatise*.

³³³ A. Matthiesen, A. Ransjo-Arvidsen, et al, Postpartum maternal Oxytocin Release by Newborns: Effects of Infant Hand Massage and Suckling, *Birth*, Vol. 29, 1 March, 2001. M. Odent, New reasons and new ways to study birth physiology.

³³⁴ S. Buckley, *Gentle Birth*.

³³⁵ B. Schnorrenberg, Is childbirth any place for a woman? The decline of midwifery in eighteenth century England, in P. Wilson Ed., *Childbirth: Changing Ideas and Practices in Britain and America to the Present*, Vol. 1, Garland Publishing, London, 1996.

³³⁶ J. Donnison, *Midwives and Medical Men*, p. 12. For discussion on the effectiveness of male midwifery, see: M. Tew, *Safer Childbirth? A critical history of maternity care*.

³³⁷ A. Wilson, *The Making of Man Midwifery*; J. Donnison, *Midwives and Medical Men*.

³³⁸ A. Wilson, *The Making of Man Midwifery*.

upright birthing positions in nineteenth century Aotearoa New Zealand, either because such behaviour was instinctive, or because it was traditional and still common practice.

Summary

Jane Sharp's practice, and traditional French practice did not incorporate manual removal of the placenta or umbilical cord traction as a way of assisting the birth of the placenta, suggesting that traditional female midwifery practice was less interventionist than that of the new, 'scientific' male midwives, but criticism of female midwifery practice also indicates that non-interventionist practice was not necessarily the norm. Early man-midwifery, such as that practised by Sir Percivall Willughby, could be quite supportive of nature, but it became obvious from the literature that by the nineteenth century potentially hazardous interventions such as uterine massage prior to the birth of the placenta, cord traction and manual removal of the placenta were increasingly an accepted part of male and female practice, although it is suggested that manual removal was more readily adopted by the male midwives.

Despite the improving maternal mortality that appears to have accompanied the introduction of forceps so that deaths from obstructed labour were reduced; maternal deaths would be expected from the eighteenth century management of the birth of the placenta. These would be from puerperal sepsis due to internal examinations and manual removal of the placenta, from inverted uterus due to uncontrolled cord traction, and from postpartum haemorrhage encouraged by manipulations that were likely to cause partial separation of the placenta.

This study, using the theoretical model, has identified two major underlying factors in eighteenth century British birth practices that influenced the birth of the placenta and would have increased the likelihood of uterine atony, and therefore postpartum haemorrhage. Firstly, the increasing use of the supine birth position, and secondly, delays in initiating mother-baby contact and breastfeeding. Sub-optimal physiological birthing due to the use of the horizontal (supine) maternal position for birth and the reduction of the production of the hormone oxytocin caused by delayed maternal contact with the baby would have increased the chances of retained placenta and postpartum haemorrhage. It is speculated that the range of invasive techniques that became commonly used to deliver the placenta in the eighteenth century could have been a response to

the suboptimal physiology created by the combination of the horizontalisation of birth and the disruption of normal hormonal dynamics by delayed and diminished mother-baby contact and also by the lack of ability to move freely, and the stress induced by pain and anxiety caused by manipulations and interference.³³⁹

European women's use of early weaning and, for richer women, wet nurses, would have increased the numbers of babies each woman had, putting women at risk of anaemia which would have exacerbated the effects of any haemorrhage experienced with the birth of the placenta. Donnison writes that Charles White pointed out that "although the poor were often half starved and served only by ignorant midwives, their maternal death rate might still be less than patients delivered in lying-in hospitals, or of the more affluent class attended by men."³⁴⁰

The rise of man-midwifery has been traced in this chapter. The next chapter will identify and analyse medical epistemology in regard to the birth of the placenta in the nineteenth century in which there was a proliferation of medical texts. New, and not necessarily safe, medical knowledge was given precedence over the women's midwifery knowledge that had been built up over many years.³⁴¹

³³⁹ For further reading on the idea that medicalisation of birth may have exacerbated difficulties with placental birth, see: S. Inch, *Birthrights*, Greenprint, London, 1989; J. Priya, *Modern Care in Pregnancy and Childbirth*, Element, UK, 1992; Botha, *The Management of the Umbilical Cord in Labour*.

³⁴⁰ J. Donnison, *Midwives and Medical Men*, p. 35.

³⁴¹ For discussion on authoritative knowledge, see: R. Davis-Floyd, C. Sargent, Eds., *Childbirth and Authoritative Knowledge: Cross Cultural Perspectives*, University of California Press, Berkeley, 1997.

Chapter Four: Medical Perspectives on Placental Parturition

Introduction

By the nineteenth century, Aotearoa New Zealand medical midwifery practice, including the medical management of the placenta, was guided by textbooks from Britain, America, and English translations of French textbooks. The examples of medical texts quoted were mostly found at the Otago Medical School Library. Some were inscribed with the names of their various owners. They may have been brought to Aotearoa New Zealand either by the doctors themselves when they immigrated, or imported by practitioners already resident in Aotearoa New Zealand. They were the source of practice knowledge for doctors in Aotearoa New Zealand. As doctors were informally teaching a number of nurses and midwives,³⁴² these texts would have increasingly influenced not only medical practice but also midwifery practice in nineteenth century Aotearoa New Zealand. This chapter consists of consideration and analysis of these textbooks offering insights into medical thought, experimentation and changes in practice over the nineteenth century. The theoretical model is used to analyse the findings.

Medical Practice

John Burns (1774 – 1850), Midwifery Lecturer of Glasgow, wrote two volumes of his midwifery textbook, several editions of which were printed in London, and three enlarged editions published in America, including one that was published in Philadelphia in 1813. They are early examples of nineteenth century obstetric literature, demonstrating a relationship between the British medical fraternity and that in America.

How the woman's room and bed (at home) should be arranged for the birth is described in some detail by Burns, and although upright birth is mentioned as being customary in some countries, the bed is advised as being the most suitable for "civilised" women: "When the process is considerably advanced it is necessary to undress, and lie in bed."³⁴³

Burns managed the birth of the placenta with fundal massage and cord traction:

³⁴² See Chapter Five.

³⁴³ J. Burns, *The Principles of Midwifery*.

The hand is next to be placed on the belly, to ascertain that there not be a second child; and the finger may, for the same purpose be slid gently along the cord to the os uteri. The hand of an assistant should be applied on the abdomen, and gently pressed on the uterus, which may excite it to action, and prevent torpor. If the placenta be not expelled soon, the uterine region may be rubbed with the hand to excite the contraction of the womb. Immediately after the expulsion of the child, there is often a copious evacuation of water, which is sometimes mistaken by the woman for a discharge of blood. But haemorrhage never takes place so instantaneously, in such quantity. It is generally a minute or two, sometimes much longer, before flooding come on; against the occurrence of this, we are to be on our guard.³⁴⁴

The type of uterine massage described by Burns is known to cause hourglass contraction of the uterus partially separating the placenta, as described in the previous chapter. The insertion of the fingers into the vagina, along the umbilical cord, would have also increased the risk of infection.

There is an obvious perceived impetus for the placenta to be expelled as soon as possible to prevent bleeding. But Burns then goes on to discuss the progress of the expulsion of the placenta almost as though he was not trying to expedite the process, “But in a short time, generally within half an hour, one or two trifling pains are felt and the placenta is expelled, which completes the process of parturition.”³⁴⁵

He discussed what to do if the placenta was retained, and spelling out the on-going quandary facing practitioners, recommended a moderate approach:

it sometimes happens that the placenta does not come away so early or so readily as we expect. It may be retained for many hours, or even for some days. [...] Some, from a confidence in the powers of nature, have inculcated as a rule of conduct that, unless flooding take place, the placenta ought not to be extracted. Others have, with equal zeal, advised it to be brought away immediately after the birth of the child. The safest practice seems to lie betwixt the two extremes. To leave the expulsion of the placenta altogether to nature, is a step attended with great danger; for as long as it is retained, we may be sure that the uterus has not contracted strongly and regularly [...] On the other hand, daily experience must convince everyone that there is no occasion for extracting the placenta immediately after the birth of the child for it is usually expelled, with perfect safety, forty minutes after the birth of the child. Nay, we find that the speedy extraction of the placenta is directly hurtful; both as it is painful, and also as it is sometimes followed by uterine haemorrhage, or, if rashly performed, by inversion of the womb.³⁴⁶

³⁴⁴ J. Burns, *The Principles of Midwifery*, p. 309.

³⁴⁵ J. Burns, *The Principles of Midwifery*, p. 309.

³⁴⁶ J. Burns, *The Principles of Midwifery*.

Moreau (1789 – 1862), a French obstetrician whose illustrated work was translated and published in America, echoed Burn's philosophy in relation to the "Delivery of the Afterbirth" but identifies the philosophy that underpinned some practice:

The assistance of the accoucheur is popularly supposed to be necessary for the delivery of the Secundines. This opinion is founded on that, formerly prevalent, which considered the foetus as the sole agent in its entrance upon this stage of life. Starting with this false principle, it was thought that the child might be born unassisted because it possessed energy sufficient to overcome any obstacles it might meet, but the Secundines, deprived of life and action, would remain an indefinite time in the uterus, if not extracted by some helping hand; this is a mistake that should be corrected.³⁴⁷

Moreau explicitly outlined the emotional changes that occur during birth, which he described as consequent to the relief from pain, not being aware at that time, of the mood-influencing role of hormones such as oxytocin in placental parturition.

In general when the child has escaped from the mother's organs, the previous violent agitation is preceded by a calm, and the woman experiences an indescribable happiness in exchanging her cruel sufferings for a state of repose.³⁴⁸

Moreau warned against early cord traction to assist the expulsion of the placenta

We should not draw on the cord before the complete separation of the appendages of the foetus; by neglect of this precept we might produce prolapse of the uterus, or rupture of the cord, and leave the placenta partly or wholly in the mother's organs.³⁴⁹

He explained that interference should wait until "when applying the hand to the hypergastrium, we feel the uterus contracted on itself, almost entirely hidden behind the pubes". He then suggests cord traction, and mentions the use, as described by Burns, of the fingers in the vagina as a pulley. He quite approved of the method but points out that "it possesses the inconvenience of preventing the accoucheur from performing frictions over the hypergastrium" to excite uterine contractions. He suggested that when the placenta is in the vagina, lifting the woman's "breach" off the bed slightly will assist expulsion; the woman therefore, is expected to be lying supine.³⁵⁰

Moreau emphasises the danger of leaving parts of the membranes or the placenta behind, and mentions twisting remnants of membrane together for extraction if left behind when the placenta

³⁴⁷ F. Moreau, *A Practical Treatise on Midwifery*, p. 214.

³⁴⁸ F. Moreau, *A Practical Treatise on Midwifery*, p. 215.

³⁴⁹ F. Moreau, *A Practical Treatise on Midwifery*, p. 215.

³⁵⁰ F. Moreau, *A Practical Treatise on Midwifery*.

has been delivered. He described complications of the third stage including “circumstances that retard the delivery of the afterbirth”.³⁵¹

Moreau differentiated between uterine inertia causing haemorrhage and inertia that does not cause haemorrhage. He believed that cases of inertia without haemorrhage could result from “privations in pregnancy” or “exhaustion from a tedious labour.” He recommended rest and broth to restore the woman first, before cord traction, and commented that if the uterus is not “excited” the placenta remains adherent and as the “connections” are not broken there will be no bleeding. He further comments that, in theory, haemorrhage might take place from the cord but states that he has never seen it in practice, but mentions that the precaution of ligating the end of the cord, suggested by the French obstetrician Baudelocoque (1845–1810), perhaps should be followed as, although in his opinion the precaution was “probably useless”, he thought no inconvenience could result from it.³⁵²

Moreau disagreed with some writers who suggested waiting from four hours to several days for the placenta to be expelled because of the risk of slow constant haemorrhage exhausting the woman, or difficulty caused later for the practitioner because of the contraction of the uterine os. He suggested that a two hour wait was adequate before attempting manual removal. In the case of haemorrhage, he suggested ergot, but, interestingly, only to maintain uterine contraction after the event rather than to stop haemorrhage. His primary method of inducing contraction of the uterus to stop the bleeding is by inserting the hand and “titillating the uterus with two or three fingers” while the other hand externally compresses the uterus, by removing clots and then slowly removing the hand, “but not until the uterus is contracting around it”.³⁵³

Cazeaux (1808 – 1862), a later French obstetric writer, wrote that the delivery of the afterbirth

comprises the natural or artificial expulsion of the foetal appendages from the mother’s womb, and is a complement of the labor [sic]. Like the latter, it is generally accomplished by the unaided powers of nature,

³⁵¹ F. Moreau, *A Practical Treatise on Midwifery*, p. 215.

³⁵² F. Moreau, *A Practical Treatise on Midwifery*, p. 215.

³⁵³ F. Moreau, *A Practical Treatise on Midwifery*, p. 219.

though in certain cases, which are fortunately very rare (about one in two hundred) it is attended by difficulties or complicated by accidents that may require the intervention of art.³⁵⁴

Clearly, Cazeaux is of the opinion that the unaided birth of the placenta is to be expected, commenting that the interval between the birth of the baby and the birth of the placenta is “very variable”. He critiques the contention that it averages twenty-five minutes, saying that in a “perfectly spontaneous delivery ... in which no traction is made on the cord” the interval was much longer. He cites research of his own where “the final expulsion did not usually occur within an hour and a half” while admitting that the placenta was usually sitting in the vagina twenty-five minutes after the birth of the baby and could remain there for several hours without causing irritation or “bearing down effort”. He tells how such a delay could force the “the patient” to remain on a bed and become anxious to have all completed, admitting that her anxiety could have an “unfavourable influence over her condition”.³⁵⁵ It can only be a matter for speculation as to what the results of his research would have been had the women been birthing in an upright position, and moving around as they desired.

Cazeaux recommends cord traction if the placenta is in the vagina, but uses the “titillating fingers and external frictions”³⁵⁶ recommended by Moreau if the placenta is in the uterus, warning against using cord traction with the placenta in the uterus in case of tearing the placenta and leaving retained portions, uterine inversion, or ruptured cord. He cites one M. Stoltz³⁵⁷ as recommending ligating the placental end of the umbilical cord so that the blood was retained in the placenta with the view that placental separation is easier due to the “weight and turgescence of this organ”.³⁵⁸

Cazeaux also describes the ‘pulley’ action described by Burns and Moreau using the fingers in the vagina, as illustrated in Getchell and replicated here as figure 3.

³⁵⁴ Cazeaux, P., Tarnier, S., *Obstetrics: The Theory and Practice*, p. 383.

³⁵⁵ Cazeaux, P., Tarnier, S., *Obstetrics: The Theory and Practice*, p. 384.

³⁵⁶ Cazeaux, P., Tarnier, S., *Obstetrics: The Theory and Practice*, p. 384.

³⁵⁷ This is likely to have been Joseph-Alexis Stoltz (1803-1896) who was an influential professor of obstetrics in Strasbourg.

³⁵⁸ Cazeaux, P., Tarnier, S., *Obstetrics: The Theory and Practice*, p. 385.



Figure 3: Illustration (woodcut) of cord traction from F. Getchell's *Illustrated Encyclopaedia of the Science and Practice of Obstetrics*, Gebbie, Philadelphia, 1890, plate XXXV11.

Uterine Expression and expulsion of the placenta

As a critic of cord traction Getchell, in 1890, took a contrary view to the previous writers, introducing the concept that “the uterus itself should be made to expel the afterbirth, and in nineteen cases out of twenty, the finger need never be introduced into the vagina after the birth of the child, nor the cord touched.”³⁵⁹

Getchell espoused the cause of placental expression and the difference between the Dublin method and Crede's method.

³⁵⁹ F. Getchell, Ed., *An Illustrated Encyclopaedia*, p. 132.

That uterine pressure after the birth of the child has been recommended by many English writers is certain, and the Dublin school especially have dwelt on its importance as a preventative of postpartum haemorrhage; but the distinct enunciation of the doctrine that the placenta should be pressed, and not drawn, out of the uterus, we owe to Crede and other German writers; and it is only of late years that this practice has become at all common. Those who have not seen placental expression find it difficult to understand that, in the large majority of cases, the uterus may be made to expel the placenta out of the vagina; but such is unquestionably the fact.³⁶⁰

He commented that practice was needed, but once the knack was acquired, that little difficulty should be experienced.

Getchell described placental expulsion:

During this interlude [after the birth of the baby] the practitioner or nurse should sit by the bedside, with the hand on the uterus to secure contraction and prevent distension; but not kneading or forcibly compressing it. When we judge that a sufficient time has elapsed, we may proceed to effect expulsion. For this purpose the fundus should be grasped in the hollow of the left hand, the ulnar edge of the hand being well pressed down behind the fundus, and when the uterus is felt to harden strong and firm pressure should be made downwards and backwards in the area of the pelvic brim. If this manoeuvre be properly carried out, and sufficiently firm pressure made, in almost every case the uterus may be made to expel the placenta into the bed, along with any coagula that may be in the cavity.³⁶¹

He stressed that the “extrusion” should not be attempted too soon after the birth of the child, suggesting fifteen to twenty minutes at least, giving adequate time for the detachment of the placenta and for the blood to coagulate in the uterine sinuses, adding that if the first attempt fails one can wait for another contraction and reapply the pressure. He explained that the practitioner should sit beside the woman and, keeping his hand on the uterus, maintaining a contraction by kneading and massaging it. Getchell also expressed his conviction that a full dose of ergot given following the birth was beneficial, and discussed the use of the abdominal binder, asserting that the binder should never be applied until the placenta had been expelled, and that even then, it should not be applied until the uterus has been contracted “perfectly and permanently”.³⁶²

³⁶⁰ F. Getchell, Ed. *An Illustrated Encyclopaedia*, p. 133.

³⁶¹ F. Getchell, Ed. *An Illustrated Encyclopaedia*, p. 134.

³⁶² F. Getchell, Ed. *An Illustrated Encyclopaedia*, p. 133.

Gaining Medical Knowledge of Placental Parturition

London obstetrician Alfred Lewis Galabin (1843 – 1913) produced a *Manual of Midwifery*, the second edition of which was produced in 1891. Galabin had some interesting comments to make about the rarity of natural placenta birth, illustrating the interventionist nature of contemporary medical practice and research.

The natural course of the third stage of labour, or expulsion of the placenta, is rarely seen, since it is usually shortened by art. It appears that, in general, the placenta is detached, partially at any rate, almost immediately after the birth of the child.³⁶³

Galabin related that in 168 ‘cases’ where an accoucheur named Lemser “examined with the entire hand” immediately after the birth of the child, in ninety four percent of multiparous women, the edge of the placenta could be felt at the uterine os “within 9 seconds after delivery of the foetus”.³⁶⁴

This degree of painfully intrusive enquiry, with its attendant risks of haemorrhage and infection, very likely undertaken without the knowledge and consent of the women, is evidence of the level of freedom obstetricians had to experiment with potentially damaging ‘cures’. Some experiments and cures, including the insertion of whole lemons into the uterus, were tried as methods of stopping postpartum haemorrhage.³⁶⁵ At a time when even the newly reintroduced agent ergot was not always a dependable uterotonic, the imperative to find some way of preventing maternal death from haemorrhage was paramount, consequently there was a need to understand the dynamics of placental birth.

Galabin acknowledged the controversy of the time in the differing theories that were being espoused concerning the manner in which the placenta naturally separated from the uterus following the birth of the baby. He expounded at some length his thoughts on the “mechanisms of detachment”³⁶⁶ and compared, again at some length, the theories of some of the well-known

³⁶³ A. Galabin, *A Manual of Midwifery*, p. 194.

³⁶⁴ A. Galabin, *A Manual of Midwifery*.

³⁶⁵ R. Johnson, *A New System of Midwifery*, London, 1769.

³⁶⁶ A. Galabin, *A Manual of Midwifery*, pp. 194 - 199.

obstetricians of the era, Matthews, Duncan, Champneys, and Schultze.³⁶⁷ After discussion of their various detachment theories, Galabin critiques Champney's findings:

These results indicate a partial and progressive inversion of the placenta and membranes and a mode of delivery intermediate between that described by Schultze and that described by Matthews Duncan. In Champney's cases, however, the woman lay on her side, and no stimulation was used to the uterus during the third stage of labour.

Galabin continued; illustrating problems potentially associated with the medical management of the time.

It is probable that the mechanism is not entirely perfect under these circumstances. So far as can be inferred from the customs which exist among savage tribes, the primary position for labour is not that of lying, but rather squatting as for defecation. The delivery of the placenta is assisted by pressure by the woman's own hands, or by the aid of her friends, and she may even stand up to squeeze the abdomen in the third stage of labour. At any rate, The frequency with which the intervention of the accoucheur is called for in third stage shows that, under our present civilized conditions, its mechanism is often not entirely natural.³⁶⁸ [my emphases.]

In his chapter on the management of normal labour (Chapter XIII) Galabin outlines a practice that came into general use in the nineteenth century. He describes it thus:

After the shoulders have passed, the expulsion of the body of the child should be left entirely to nature, since, if the uterus be emptied artificially, it is more likely to remain flaccid, and permit haemorrhage. The left hand should be placed on the abdomen, follow down the fundus as it diminishes in size, and make sure that it remains contracted. This is an important measure as a safeguard against haemorrhage.³⁶⁹

Galabin also is against the practice of ligating the umbilical cord as soon as the baby is breathing, citing research, and noting that by not waiting for the cord to empty "we get the startling result that to tie the funis immediately is equivalent to bleeding the child to the amount of three ounces, a bleeding that would correspond to one of about sixty ounces [approximately 1800ml] in an adult."³⁷⁰

Galabin states that the correct management of the "third stage" is the "most important of all the duties of the physician" and compares the method (of placental expression) to the method

³⁶⁷ For further discussion, see: M. O'Dowd, E. Philipp, *The History of Obstetrics and Gynaecology*.

³⁶⁸ A. Galabin, *A Manual of Midwifery*, p. 197.

³⁶⁹ A. Galabin, *A Manual of Midwifery*, p. 214.

³⁷⁰ A. Galabin, *A Manual of Midwifery*.

“taught in most textbooks” of “only a few years ago”³⁷¹ of cord traction. He critiques the older method, stating that he objected to it because

any traction whatever on the funis pulls away the centre of the placenta from the uterine wall, and so creates a vacuum that must be filled up either by blood poured out through displacement of some of the thrombi, or, less frequently, by entrance of air from outside. Moreover by drawing down the placenta like an inverted umbrella, it interferes with the natural mechanism of its expulsion.³⁷²

Crede's Manoeuvre

Galabin again describes the new method of placental expression, attributing it to Crede, but qualifying the statement with the explanation that Crede revived its use, rather than invented it. He outlines the method repeating the need for the physician to

follow down with his hand the contracting uterus, and by pressure and, if necessary, gentle friction, stimulate it to maintain its retraction after the child is born. It is not desirable, by forcible pressure, to attempt to completely expel the placenta with the same pain which expels the child, or immediately after-wards. For if the uterus be completely emptied before thrombi have had time to form in the vessels, it is more apt to relax again quickly, not being stimulated by the presence of the placenta within, and so allow haemorrhage to take place.³⁷³

The idea that the placenta in some way stimulates uterine contraction is an interesting idea seemingly counter to the common understanding that the placenta remaining in the uterus prevents complete contraction of the uterus. Galabin continues:

Provided that there is no haemorrhage, it is better to wait from ten to fifteen to twenty minutes after the birth, to allow the thrombi to form. Meanwhile the physician keeps his hand upon the uterus to make sure that it does not relax or dilate; or while he is engaged in tying the funis, or otherwise attending to the child, directs the nurse to place her hand upon it. After a sufficient lapse of time, gentle uterine contractions will probably be beginning to recur. These are to be stimulated by a more active pressure, combined with friction over the fundus. As soon as an active contraction is called forth by these means, so that the fundus becomes quite hard under the hand, the fundus is grasped with the palm of the hand and fingers, and circular compression made upon the body of the uterus, at the same time that it is pressed downwards in the direction of its axis. The expulsion of the placenta out of the uterus into the vagina is known by the diminution of the size of the uterine body. By continuing the pressure downwards in the axis of the pelvis, the physician may then generally complete the expression of the placenta out of the vagina onto the bed.³⁷⁴

³⁷¹ A. Galabin, *A Manual of Midwifery*, p. 216

³⁷² A. Galabin, *A Manual of Midwifery*, p. 216.

³⁷³ A. Galabin, *A Manual of Midwifery*, p. 216.

³⁷⁴ A. Galabin, *A Manual of Midwifery*, p. 217.

Galabin states that once the physician can feel the lower part of the placenta in the vagina he can gently pull it out using his thumb and forefinger, aided by some abdominal pressure, and that once the placenta is in the vagina it causes no harm to pull it out by cord traction. He suggests that this technique can be used with the woman lying on her side but if there are problems she should be turned onto her back. He stresses that with a large uterus two hands may be required, and warns that if the uterus is too large and relaxed caution is needed to prevent uterine inversion. The only drawback, in his view is that women who have had their placenta delivered with cord traction complain that there is more 'discomfort' with the newer method.

When analysed using the theoretical model it is obvious that the drawbacks and 'practice pitfalls' identified in Chapter Three have not changed in the new environment. Although at the end of the nineteenth century practice was changing slowly in recognition of the dangers of sepsis and uterine inversion, and there was some recognition that maternal position impacted on the efficiency of placental birth, the factors that created suboptimal placental birth remained for women under the care of medically trained practitioners. There may have been a lessening of sepsis, but sepsis remained the most common killer of birthing women in Aotearoa New Zealand well into the early twentieth century.³⁷⁵

Summary

This chapter has examined the medical methods of managing placental birth that were outlined in British, American and French textbooks used in nineteenth century Aotearoa New Zealand. The intrusive internal manoeuvres, such as manual removal of the placenta and cord traction, which could cause sepsis and uterine inversion, gave way to new manoeuvres designed to lessen the risk of sepsis by not requiring insertion of fingers into the vagina, and to lessen the risk of uterine inversion by not pulling on the umbilical cord. These new manoeuvres entailed waiting for the placenta to separate, followed by external expression of the placenta from the woman's vagina, using the contracted uterus as a piston. Knowledge about the physiology of placental separation increased over this era with at least some researchers and clinicians acknowledging that the

³⁷⁵ Report of the Sub-Committee of the B.M.A. (NZ Branch) on Maternal Mortality, *New Zealand Medical Journal*, Vol. XXI, April 1922, pp. 57 – 58.

woman's horizontal position had an effect on the physiological process, however without attempting to rectify this. The woman remained in her supine position, vulnerable and accessible.

The medical maternity practice of the time is shown by the texts to be highly interventionist; with puerperal fever figuring as a major killer of women in the nineteenth century, the lack of awareness and the frequency of intrusive manoeuvres, in some cases born from the search for knowledge rather than from the needs of the women is disturbing when read by modern eyes. As the textbooks were written by men who were usually researchers and teachers attached to large urban maternity hospitals, perhaps one would not expect the same degree of intrusiveness from the colonial doctor; but the management of the birth of the placenta by Aotearoa New Zealand doctors would have been learned from these texts, if not from some of the authors involved.

European cultural ideas around the secundine came to Aotearoa New Zealand with the early settlers, the majority of whom were British. The knowledge of birthing brought to Aotearoa New Zealand by the settlers in the early nineteenth century varied immensely. In the early years there were very few doctors, but they increased in number during the century, based mainly in the urban areas. There were women with some 'scientific' nursing or midwifery education, like the early missionary wife, Marianne Williams, who made a particular effort to gain knowledge of nursing and midwifery prior to leaving her home for Aotearoa New Zealand in 1823.³⁷⁶ There were traditional midwives, and women, wives and mothers with little or no education or experience, who were to become midwives through circumstance.

In the next chapter the evolution of the Maori management of the birth of the whenua is traced in eighteenth century Aotearoa New Zealand. Maori and European settler women's childbirth practices and knowledge in an era of colonisation and medical discovery, the nineteenth century is the subject of the remainder of the chapter. The theoretical framework is again utilised to analyse the practices.

³⁷⁶ C, Fitzgerald, Ed., *Letters from the Bay of Islands*.

Chapter Five: Changing Worlds

Introduction

Childbirth in Early Aotearoa New Zealand, for both Maori and for Settler Women, was within the context of changing worlds. This chapter analyses the childbirth practices of early Maori and the impact that the European colonisation of Aotearoa New Zealand had on their childbirth knowledges and practices. European settler childbirth knowledge and practices were changed by their transplantation into a new environment that was, for most women, far from family support and generational childbirth knowledge. The theoretical model is used to analyse the childbirth knowledge and practices of both groups over the eighteenth and nineteenth centuries.

In the first section of the chapter the traditional birthing practices of Maori, the first people of Aotearoa New Zealand are identified and analysed. Maori traditional practice informed the foundational childbirth knowledge and practices in nineteenth century Aotearoa New Zealand merging with the knowledge that was brought with the settlers from Europe. The Maori and *Pakeha* streams of knowledge mingled, each learning from the other, some more, some less, but establishing the context against which the evolution of the management of the birth of the placenta could be placed, at least until they were both swept away, in the twentieth century, by the new 'obstetrics'.

Colonisation posed different problems for both Maori and Pakeha women, but was particularly disruptive to the Maori way of life, which changed forever following contact with Europeans. The physical context of birth in Aotearoa New Zealand was dictated by the geography of the land with new settlers in isolated areas breaking in land for farms, gold-mining, and establishing early flax, *kauri* gum and timber industries. Most Maori were living in rural *Kainga* (settlements) also isolated but allowing at least some customary practices to persist into the twentieth century.³⁷⁷ The other major influence on nineteenth century birthing was the lack of qualified maternity practitioners.

³⁷⁷ R. Lange, *May the People Live*.

Changes to birthing practices in nineteenth century Aotearoa New Zealand were also influenced by Victorian values which guided and constrained the role of women. In Britain traditional midwifery had lost status, as doctors became the dominant maternity practitioners.³⁷⁸ In Aotearoa New Zealand that process was delayed as there were few doctors available to women. Settler women brought their midwifery knowledge and their own experiential birthing knowledge with them to their new country, but for many women there was limited access to midwifery support, either from a midwife or from an older woman with some experience. These women would have needed to rely on their own, and their husbands', knowledge and instinct. Maggie Banks, writing about the history of homebirth in Aotearoa New Zealand, comments that it was rare for the Aotearoa New Zealand pioneering women to have the support of previous generations of women as they would have had in their homelands. It was, therefore, necessary for them to learn by attending women in labour, and sometimes the only experience the woman attending the birth had was that of her own childbearing.³⁷⁹ This point was also made by Goldsbury, who researched the lives of the early missionary wives in Aotearoa New Zealand.³⁸⁰

Women's experience of birth is influenced by their variously changing environments. Maori women's birth practices remained mostly traditional, but statistics show that Maori maternal mortality had risen to a much higher level than that of European women by the early twentieth century. Possible underlying causes for such a rise are explored and discussed.

Tangata Whenua: People of the Land

Maori had long been occupants of Aotearoa New Zealand when Abel Tasman 'discovered' Aotearoa New Zealand in 1642. The first physical contact between Maori and Europeans that included Europeans setting foot on the land did not occur until James Cook visited Aotearoa New Zealand in 1769.³⁸¹ Cook estimated the Maori population at 100,000, but he did not visit the most

³⁷⁸ B. Schnorrenberg, *Is childbirth any place for a woman?*

³⁷⁹ M. Banks, *Homebirth Bound*, p. 41.

³⁸⁰ S. Goldsbury, *Behind the Picket Fence: The Lives of Missionary Wives in Pre-Colonial New Zealand*, MA Thesis, University of Auckland, 1986.

³⁸¹ K. Sinclair, *The Pelican History of New Zealand*, Penguin Books, England, 1980.

populous areas and therefore a population of between 200,000 and 230,000 was calculated by anthropologist Joan Metge as a more accurate figure.³⁸² There is general agreement that 80 percent of the Maori population dwelt in the northern half of the North Island which became the key area of Maori-European interaction.³⁸³

Maori Health

Settlement by Europeans was at first sporadic, followed by a steadily rising stream of colonists that brought disruption to Maori ways of life. Although the introduction of weaponry such as the musket, and the effects of new infectious diseases and social and economic change wrought terrible effects upon Maori who came to be seen as a dying race,³⁸⁴ in the eighteenth century, Maori were reported to have been a reasonably healthy race, tall and well built.³⁸⁵ Houghton's study of prehistoric Maori skeletal remains, the earliest assessed as from about 1150AD, indicates that they were tall and well-built. They also indicated an adequate but not overly nutritious diet which Houghton believed would have prevented women from becoming fertile until their late teens.³⁸⁶ The women studied had an average life expectancy of 35 years,³⁸⁷ and had borne an average of three to four children. This is explained by the gritty and fibrous diet they had available which meant that the women would have breastfed their children for some years.³⁸⁸ Anthropologist Joan Metge agrees, stating that Maori genealogies offer evidence that Maori families usually comprised less than six children including those that died young. She introduces

³⁸² Cook's figure of 100,000 is also thought questionable by other authorities. Pool, who critiqued the 1961 Census, postulated that a possible range of 75,000 to 300,000 is a reasonable estimate; For further discussion, See: I. Pool, *The Maori Population of New Zealand 1769 – 1971*, Auckland University Press, Auckland, 1977.

³⁸³ J. Metge, *The Maoris of New Zealand*, Routledge and Kegan Paul, London, 1967.

³⁸⁴ R. Lange, *May the People Live*.

³⁸⁵ P. Houghton, *The First New Zealanders*.

³⁸⁶ Houghton's findings, however, may possibly have been shaped by the various environments where the skeletal remains were found.

³⁸⁷ The men had a shorter life expectancy – closer to 30 years.

³⁸⁸ P. Houghton, *The First New Zealanders*; P. Buck, *The Coming of the Maori by Te Rangi Hiroa*, Maori Purposes Fund Board, Wellington, 1977.

another factor that would certainly have reinforced the contraceptive effect of constant breastfeeding; that there was a *tapu* on sexual intercourse for two years during breastfeeding.³⁸⁹

Ian Prior, a medical doctor, agreed that:

The observations made by Cook, Banks, and other early visitors to New Zealand, all support the idea of the New Zealand Maori being healthy, muscular, well-built but not obese people. Old people with well preserved bodies and teeth were plentiful, and people apparently died of senility or the results of war. The healthy hilltop pa; the simple but adequate diet of kumara, fern root, fish and birds; the vigorous, active life spent obtaining food, playing games and indulging in war must all have contributed to their apparently healthy state. They must have had diseases such as pneumonia and gastro-enteritis, but for the most part they appear to have been remarkably healthy.³⁹⁰

Maui Pomare asserted that “Those who reached maturity were literally the fittest of their race, for no weakling could survive the hardships and exposure of their primitive life.”³⁹¹ This would also have applied to childbearing women; indeed, it could be speculated that a degree of natural selection may have bestowed upon Maori women an efficient child-bearing capacity. Rachitic changes were not reported in the examination of the bones of early Maori (although they were shown to have suffered from arthritis and rheumatism), so Maori women of the eighteenth century do not appear to have been supine to rickets unlike many of their British contemporaries.³⁹²

Discovering Maori Birthing

Several white male writers described early Maori birthing. Goldie wrote in 1903 about Maori medical lore:

...parturition among primitive and uncivilized races is easier and more rapid than in civilized countries. This rule holds good for the Maoris, with whom labour is soon over, and the mother almost immediately returns to her normal duties. According to one authority labour seldom exceeds two hours; generally it is much

³⁸⁹ J. Metge, *The Maoris of New Zealand*.

³⁹⁰ I. Prior, Health, in E. Schwimmer, Ed. *The Maori People in the Nineteen-sixties: a symposium*, Blackwood & Janet Paul Ltd, Auckland, 1968, p. 270.

³⁹¹ M. Pomare, 1909, quoted in R. Lange, 1999, *May the People Live*, p. 1.

³⁹² P. Houghton, *The First New Zealanders*; J. Carter, T. Duriez, *With Child*; Many British women suffered severe birth complications due to rachitic pelvic deformities caused by lack of Vitamin D from poor nutrition and lack of exposure to sunlight.

shorter. After delivery, the woman proceeds to a stream and washes herself and her infant, and then returns home. [...] They rise almost immediately after the expulsion of the placenta. Sickness after parturition is rare. Many missionaries and medical men who have lived long among the natives have never heard of a Maori woman dying in childbed. A native chief, aged about fifty, told Dr. Thomson that out of a tribe numbering four thousand souls he could only recollect ten instances of women dying in childbed. This is about one death in three years out of about two thousand women. The circumstances which caused death, the chief said, were haemorrhage and cross-births.³⁹³

Goldie discussed birth rituals and *karakia* (incantations) explaining the setting up of a place for birth which could be a small house (or *whare kohanga*)³⁹⁴ or could be as simple as the woman taking a rug with her:

In some Maori tribes, as soon as the woman finds her labour has commenced, she takes her rug and goes into the open air, into a quiet, retired place. If it is her first child a woman attends her; after the first child she goes alone, no one interfering unless assistance is sought.³⁹⁵

Goldie also describes the posts that were sometimes fixed in the ground to help the woman maintain her upright posture during birth; sometimes with two posts, one behind the woman for her to lean on, and one before to hold on to, sometimes with three posts but in any case usually kneeling. *Karakia* and rituals were performed in cases where birth was prolonged showing that birth for Maori, as one would expect, was not always simple and uncomplicated.

One very old *karakia* is described as being used when seeking the aid of *Hineteiwaiwa*, also known as *Hinauri* or *Hine*, the demigod Maui's sister. The *karakia* (used by *Arawa*) includes suggestions of an upright position being used for birth and also calls for the birth of the placenta and membranes. Goldie gives us a portion of a translation, The meanings may be differently translated by different Maori, and by modern Maori, particularly as words may have multiple layers of meaning. However, the concept portrayed of a woman birthing in an upright position, and calling for the placenta and membranes to birth, is significant.

³⁹³ W. Goldie, *Maori Medical Lore*, p.102; 'Cross-births' are a lay term for malpresentations.

³⁹⁴ E. Best, *The Whare Kohanga and its Lore*, Government Printer, Wellington, 1975.

³⁹⁵ W. Goldie, *Maori Medical Lore*, p. 105.

Weave, weave the mat,
Couch for my unborn child,
Now I step upon the mat,
My child now one with myself,
Stand firm, prop of Hine-rauwharangi,
Stand firm prop of Hine-teiwaiwa,
Chide me not in my trouble,
Me Hine-tewaiwa, O Rupe,
Release from above your hair,
Your head, your shoulders,
Your breast, your liver,
Your knees, your feet,
Let them come forth,
The old lady with the night dark visage*
She will make you stretch,
She will make you rise up,
Let go placenta, let go membranes,
Come forth.³⁹⁶

*Hine-nui-te-po, the mother of the female ancestors of mankind

Best calls the goddess Hine-iwaiwa and describes her as “a type of tutelary being who controls matters connected with women’s industries, childbirth &c.”³⁹⁷ He describes the use of the *whare kohanga* and the rites associated with it in detail, including the use of posts to help the woman, but he describes a horizontal post joined to uprights that the woman could lean over. The temporary house and its contents were usually destroyed by fire.³⁹⁸ This firing and the care taken, and *tapu* associated with, bodily wastes and with birth would have contributed usefully, if unintentionally, to the prevention of childbirth fever. Lange noted that there was a degree of sanitation, including latrines, in the early villages in keeping with traditional ideas that reinforced the ritual disposal of food and body wastes which included the by-products of childbirth.³⁹⁹ Te Rangi Hiroa (Sir Peter Buck), a Maori medical doctor, one of a group who actively promoted health for Maori in the early twentieth century, explains that the *whare kohanga*, being *tapu*,

had to be destroyed to prevent it becoming a source of danger to others. The woodwork, if used as firewood for cooking fires, would result in affliction or death. Later, even any material which had grown on the site would bring trouble to those who used it. Thus as a preventative measure, the house was burnt down as

³⁹⁶ W. Goldie, *Maori Medical Lore*, p. 105.

³⁹⁷ E. Best, *The Maori as He Was*, Government Printer, Wellington, 1952.

³⁹⁸ E. Best, *The Whare Kohanga*.

³⁹⁹ R. Lange, *May the People Live*.

were any mats or material used within it. A priest conducted the ceremony to remove the tapu from the house site. From a modern point of view, the maternity house was equivalent to an infectious disease shelter, and the treatment by fire and ritual destroyed a psychological source of infection in a way similar to the material destruction of microbic infection by fire or fumigation with chemicals.⁴⁰⁰

Goldie tells us that the placenta (*whenua*) was described as a “first abiding place of the child” and describes how it is taken and buried in a place that is avoided by people, and that the *tohunga* would perform a rite over the *whenua* to cause the woman’s next child to be healthy. He also outlines certain beliefs concerning the umbilical cord and relates a *karakia* associated with the cutting of the cord but makes no mention of tying it off.⁴⁰¹ Best also relates in detail the cutting of the umbilical cord and goes on to describe the material used to tie it off.⁴⁰²

Makareti, as a writer of the early twentieth century is a rarity amongst early recorders of Maori life as she was a Maori woman who described Maori birth practices.⁴⁰³ Although her memories are from the early twentieth century, when she describes the birthing practices of Maori she speaks from her own observations during her youth in an isolated traditional village setting.

Generally whakawhanau or giving birth to a child was not a matter to worry over, and a Maori woman of the old days did not suffer or go through the same painful experience as the wahine pakeha (European woman). She lived a natural life and generally went about doing her ordinary duties up to a few days before her confinement, when she left the Kainga to live in a small temporary place that was built for her.⁴⁰⁴

Makareti’s belief that giving birth “was not a matter to worry over” is supported by other writers, including Ani Mikaere, a lawyer who writes about women’s place in early Maori society and asserts that early Maori women had confidence in their ability to reproduce.⁴⁰⁵ Makareti’s description of early Maori birthing as reasonably trouble free is also corroborated by eye witness medical accounts written in 1889.⁴⁰⁶ Makareti describes how, particularly for a highborn woman

⁴⁰⁰ P. Buck, *The Coming of the Maori*, p. 353.

⁴⁰¹ W. Goldie, *Maori Medical Lore*.

⁴⁰² E. Best, *The Whare Kohanga*.

⁴⁰³ Makareti, *The Old Time Maori*.

⁴⁰⁴ Makareti, *The Old-Time Maori*, p 113.

⁴⁰⁵ A. Mikaere, *The Balance Destroyed: Consequences for Maori Women of the colonization of Tikanga Maori*.

⁴⁰⁶ T. Bell, Medical Notes on New Zealand, *NZ Medical Journal*, Vol. III, 1890.

or a first birth, the woman would be attended by women family members who would sit close to her and support her:

The young mother knelt in front of her [the attendant] with her legs apart, while the attendant pressed lightly on the upper part of the poho (abdomen) of the patient, thus helping to force the baby downward. As each pain comes, the attendant puts her arms around the body of the patient, and pulls her forward gently against her knees.⁴⁰⁷

This method of helping women to birth is anecdotally known to have been in common use and its use in the Otaki area of the North Island of Aotearoa New Zealand, often with the women relatives replaced by the woman's husband, is described in the *New Zealand Medical Journal* of 1890. There is a history of men being involved in birth in Maori society, with male relatives, grandfathers, fathers, uncles and husbands reported as acting as midwives, especially within their *whanau*.⁴⁰⁸ Discussing the birth of the whenua, Makareti continues:

When the attendant has finished with the baby she turns her attention again to the mother, who in the meantime has been waiting for the whenua, i.e. the placenta, to come away. During the short time that the attendant was spending with the child, one of the relatives would support the young mother until she was ready. Sometimes the afterbirth comes away quickly, and in some cases it takes a long time. When it comes away the whenua is taken by the mother, aunt, or other close relative to a secret place already chosen and ready to receive it. It is there buried. If the whenua does not come away as it should, the patient is sometimes taken to a running stream – she would walk herself – and here she would lie in shallow water, and the attendant would stand on her poho, first on one foot and then the other till the whenua and all the parapara (blood) has come away. She would then walk back to the whare where her relatives were. After this she would be considered well enough to attend to the infant and to herself.⁴⁰⁹

For ordinary women, once they had one child, it was different. Makareti writes:

In many cases a woman was attended to only with her first child, when she learned what to do. It was not always possible to have someone attend her during confinement. Women were quite capable of attending to themselves [...] No one ever attended her, and no one knew anything about it until she appeared with her infant after a few hours absence in a whare [...] She... had all the necessary things ready, the kakahi shell with which to cut the umbilical cord, and the string for tying it... She then attended to cutting the cord and tying it, and after making the infant comfortable attended to herself, the most important thing being the whenua (placenta) which should come away with the parapara.⁴¹⁰

⁴⁰⁷ Makareti, *The Old-time Maori*, p. 114.

⁴⁰⁸ T. Bell, Medical Notes.

⁴⁰⁹ Makareti, *The Old-time Maori*, p.115.

⁴¹⁰ Makareti, *The Old-time Maori*, pp.118 – 119.

Makareti describes common childbirth practices of the early twentieth century, some of which may, or may not, have been present prior to European settlement. She describes how the attendant would attend to the baby while waiting for the placenta. The tying of the umbilical cord, too, is accepted by Makareti as a Maori ritual but it remains possible that it could also have been an artefact of colonisation. Goldie does not mention tying the cord, and there are other accounts of the cord being cut but not tied from the 1890s.⁴¹¹ However, Best does describe the use of native plant material for tying it. It is quite likely that the practice varied from place to place and from *hapu* to *hapu*.

Best describes materials that were used for tying the *iho*,⁴¹² “a thin stem of a creeping plant called *makahakaha* found growing in sandy places near beach. Scraped, and smoothed and coiled up and left in water to keep it supple.” He discusses how the *makahakaha* might also be soaked in oil—sometimes *titoki* seed oil, and describes the use of a short piece of oiled lacebark that was placed over the *pito*, over which a bandage of bark (lacebark) would be belted to secure it.⁴¹³ Best writes that the *iho* and the *pito* would normally be ritually and ceremonially buried somewhere significant to the child or its family, and the *ewe*, or *whenua*, was buried in a place that nobody could walk across.⁴¹⁴ The placenta was never burned as it was considered that this would harm the child’s *mauri*. Teone Taare Tikao who died in 1927, a respected *Rangitira* of *Te Waipounamu*, explains:

When a child is born to the pakeha, the doctor or nurse usually burns the placenta or afterbirth. The Maori did not do this – it would be against the mana of that child and would destroy its *mauri* (life principle). As the *mauri* of a person ceases at death, to burn a corpse did not destroy its mana, for the *mauri* was already gone. But burning the *whenua* (placenta) of a child alive is to destroy its mana – the *mauri* of the living child would be gone. Therefore the placenta was never burnt, but was carefully buried in the *whenua* (earth) and I think this is how it got its name, and by this burial the child’s *mauri* and mana is preserved.⁴¹⁵

⁴¹¹ T. Bell, Medical Notes.

⁴¹² *Iho* and *pito* are parts of the umbilical cord. The *pito* is the part attached to the baby.

⁴¹³ E. Best, *The Whare Kohanga*.

⁴¹⁴ E. Best, *The Whare Kohanga*, p. 21.

⁴¹⁵ H. Beattie, *Tikao Talks: Treasures from the Ancient World of the Maori*, Penguin Books, A.H and W. Reed, 1939, p.97.

An upright birth posture allows the woman to lift the baby to her breast immediately, an instinctive action seen in natural birthing where the mother, rather than the birth attendant is in control. Breastfeeding was necessary for survival as there was no alternative nourishment for the baby.⁴¹⁶ Breastfeeding and breast milk, (*Wai u*) were philosophically and culturally entrenched for Maori.⁴¹⁷ Holding and breastfeeding the baby immediately after the birth optimises the hormonal activity that aids placental birth.⁴¹⁸

Maori Maternal Mortality

Pool, in his analysis of Maori population trends, asserted that in this period “there is nothing to indicate that infant and maternal mortality were low.”⁴¹⁹ However, evidence to support a high maternal mortality is lacking, and what is available is in agreement with Makareti when she describes early Maori birthing as easier than for European women, and less dangerous. Houghton’s assertion, and Metge’s confirmation that Maori prior to European settlement were well built with an adequate diet, birthed from their late teens until their thirties, with families that were not excessively large, would give us a population where risk factors associated with frequent childbearing, such as anaemia and malpresentations, were reduced. Exploring the manner in which Maori gave birth also gives clues; they birthed alone, or with family with whom they were familiar. They were not subjected to intrusive manoeuvres such as vaginal examinations that have been implicated in increased puerperal infection,⁴²⁰ and importantly, they used an upright position throughout the birth; “waiting for the whenua... one of the relatives would support the new mother until she was ready”.⁴²¹

⁴¹⁶ R. Wright-St Clair, Early accounts of Maori Diet and Health, *New Zealand Medical Journal*, Vol. 70, No.450, Nov. 1969, pp. 327-31.

⁴¹⁷ H. Tupara, personal communication, November 2010.

⁴¹⁸ M. Odent, Birth and Breastfeeding.

⁴¹⁹ I. Pool, *The Maori Population of New Zealand*.

⁴²⁰ A. Mikaere, *The Balance Destroyed*.

⁴²¹ Makareti, *The Old-time Maori*.

The ability and inclination to hold and breastfeed their babies soon after birth facilitated the physiological birth of the placenta. The practice of waiting for the placenta to come rather than using potentially dangerous interventions such as cord traction and manual removal of the placenta reduced the risk of uterine inversion and uterine infection. Current evidence supports the premise that it would have also reduced the risk of PPH. The risk of PPH caused by premature stimulation of the uterus by kneading and massaging prior to placental separation was avoided. When analysed against the theoretical model outlined in Chapter Two it is obvious that Maori birth of the placenta, and birth in general, were physiologically optimal.⁴²² This would suggest that a low maternal mortality rate could be expected in the Maori population prior to European settlement of Aotearoa New Zealand, and in the early years of settlement.

This first section of the chapter has identified and explained early Maori birth practices; the evidence portraying a healthy style of birthing that would suggest that childbirth for Maori in the eighteenth and early nineteenth centuries was physiologically optimal.

The next section explains how European settlement of Aotearoa New Zealand impacted on Maori birthing and also discusses conditions for birthing for settler women. It begins with an overview of the effects of initial encounters between Maori and European, of Maori Health in general, and on the *mana* and role of Maori women. The context for women birthing in nineteenth century Aotearoa New Zealand is illustrated in this chapter by discussion of pioneer birthing from both primary and secondary sources.

First Encounters

The first Europeans who interacted with Maori (prior to 1840) were of two distinct types: seafarers and missionaries. The seafarers (including whalers, sealers and traders) came first.⁴²³ Associated with the seafarers, was growth in trade in foodstuffs, tools, flax, and timber for spars.

⁴²² Further discussion supporting early Maori birth as physiologically optimal can be found in: A. Wassner, Some cultural Aspects Affecting Pain Relief in Obstetrics, in Wassner, A., *A Labour of Love, Childbirth at Dunedin Hospital 1862 – 1972*, Author, Wycliffe Press, Dunedin, 1999.

⁴²³ K. Sinclair, *The Pelican History of New Zealand*.

Sinclair comments that the people Maori met at that time were often deserters from ships, sealers and escaped convicts who “infringed Maori law in innumerable ways – defied the *tapu*, stole the crops, filched weapons or mats for sale as ‘curiosities’ and kidnapped men and women without scruple.”⁴²⁴ It is not surprising that instances of conflict were common; however, Maori also could see benefits in trade and in learning to use the new technology available through interaction with the newcomers, so although Aotearoa New Zealand was at the time regarded as a very dangerous place, there were still Europeans who lived and intermarried with Maori.⁴²⁵

In marked contrast to the rough and often lawless earliest seafaring settlers were the missionaries. Samuel Marsden first preached the gospel in Aotearoa New Zealand at the Bay of Islands on Christmas Day, 1814, and later returned to New South Wales leaving a group of evangelicals from the English Church Missionary Society to convert Maori, a daunting task which was to take almost a decade to gain the first few converts.⁴²⁶ Marianne Williams joined the group with her husband, Henry, in 1823, as one of a small number of European women living as missionaries in an often hostile environment. According to Goldsbury, “the primary public role of many missionary women was that of midwife.”⁴²⁷ Among her numerous other duties (she ran her house and a school for Maori girls), Marianne used her midwifery skills, attending confinements and nursing her colleagues when they suffered haemorrhage or fever following their births and miscarriages. Although she bore eleven children herself, Marianne was not immune from difficulties, as her sister-in-law Jane (Mrs William Williams), wrote in 1829:

I must tell you of Marianne’s confinement [...] with her second daughter, whose birth was attended with no small share of anxiety having nearly cost the mother her life, which was in imminent danger for several hours, in consequence of very violent haemorrhage and fainting, which came on about an hour after the baby was born.”⁴²⁸

⁴²⁴ K. Sinclair, *The Pelican History of New Zealand*, p. 36.

⁴²⁵ A. Woodhouse, Ed., *Tales of Pioneer Women*.

⁴²⁶ C. Fitzgerald, Ed., *Letters from the Bay of Islands*.

⁴²⁷ S. Goldsbury, *Behind the Picket Fence*.

⁴²⁸ J. Williams, quoted in C. Fitzgerald, Ed., *Letters from the Bay of Islands*, pp. 161, 174.

Marianne's husband, Henry Williams, was to play a key role in the signing of Aotearoa New Zealand's founding document, The Treaty of Waitangi in 1840, a treaty that was intended to provide for the two peoples to exist peacefully side by side, and to protect Maori from the burgeoning numbers of European settlers, hungry for land, and an anarchic society.⁴²⁹ The 1820s and 1830s were marked by lawlessness and battles between Maori tribal groups, and between Maori and European. The musket gave a new impetus to intertribal warfare and, in the resultant 'Musket Wars', in which many Maori and some Europeans died, tribal boundaries and territories changed throughout Aotearoa New Zealand.⁴³⁰

Maori habits were changed by the contact with Europeans; by the 1830s most Maori in the Bay of Islands wore European garments and many smoked tobacco. Alcohol abuse was rife among both Maori and Pakeha.⁴³¹ By 1840, while The Treaty of Waitangi was being signed, land was being purchased in many areas around Aotearoa New Zealand; organised groups of colonists were landing in other places, like *Pito-one*⁴³² in Wellington, where, for example, four ship loads of settlers landed on the beach between the 22nd of January and the 28th of February 1840.⁴³³ The burgeoning demand for land for the settlers resulted in the 'Land Wars' that lasted until the 1860s, and resulted in huge land loss for Maori, further disrupting Maori traditional ways of life.⁴³⁴

Maori Health

Prior described some of the effects of colonisation on Maori:

The devastating changes in health that followed the arrival of the European illustrates very clearly what can result from exposure to new diseases, with alterations in way of life, deterioration in housing, change in food habits, and the ready availability of alcohol and muskets. The combined effect of infectious diseases, typhoid,

⁴²⁹ P. Moon, *The Newest Country in the World*, Penguin Group, NZ, 2007.

⁴³⁰ R. Lange, *May the People Live*.

⁴³¹ K. Sinclair, *The Pelican History of New Zealand*.

⁴³² *Pito-one* was later incorrectly named 'Petone'.

⁴³³ L. Ward, *Early Wellington*, Whitcomb and Tombs, Wellington, 1929.

⁴³⁴ R. Lange, *May the People Live*.

measles, dysentery, whooping cough, tuberculosis, gonorrhoea, and syphilis, led to a dramatic fall in the Maori population.⁴³⁵

Originally conservatively estimated at about 100,000, Maori were considered a healthy race at the end of the eighteenth century. At its nadir, the Maori population was estimated at two fifths of that number, 42,113 in 1896.⁴³⁶ European settler numbers, in contrast, increased steadily over the century; by 1860 the increasing European (Pakeha) population were equal to the drastically decreased Maori population. By the end of the nineteenth century Pakeha outnumbered Maori fifteen to one.⁴³⁷

Maori health suffered badly from the warfare that accompanied the introduction of modern weapons. The introduction of infectious diseases, alcohol, tobacco, dietary and clothing changes, urbanisation and the loosening and changing of traditional family and social structures and values, however, caused morbidity and mortality far outweighing that of warfare.⁴³⁸

Lange explains that reports of nineteenth century Maori health are at best “impressionistic” because there was little proven data; the registration of deaths, for instance, was not required until 1913, and was incompletely collected even then. By the late nineteenth century, however, it was clear that dislocation of the environment and economy had severely affected Maori health with many groups moving, often into seasonal camps, to take advantage of the economic opportunities offered by gum-digging, shearing, and forest felling. The conditions were usually unhealthy, particularly when there was involvement with the flax and kauri gum-digging industries, as the camps were located in damp swampy areas which encouraged respiratory infection. Sanitation became problematic as a loss of belief in tribal authority and the *tapu* system eroded their sanitary advantages and gastro-enteritis, among other diseases, became common from polluted, shallow wells and impure water supplies.⁴³⁹

⁴³⁵ I. Prior, *Health*.

⁴³⁶ R. Lange, *May the People Live*.

⁴³⁷ R. Lange, *May the People Live*.

⁴³⁸ R. Lange, *May the People Live*.

⁴³⁹ R. Lange, *May the People Live*.

The traditional belief system had meant that the dead and their possessions were *tapu*; the belongings of the dead were often burnt, as was the *whare kohanga* following birth, which was an excellent method of preventing infection. Traditionally, food and bodily waste, and menstrual waste, had been all carefully disposed of by burning or burying; bodily waste for fear of its potential use in sorcery, and menstrual blood because it contained potentially dangerous “baby spirits”. Established *kainga* in the early part of the century usually had kept particular areas for use as latrines.⁴⁴⁰ Hope Tupara, a Maori midwife who has researched Maori birth practices contends that Maori were a practical race who had such respect for the land that burning and burying body and food waste would have been a way of both respecting and caring for the land and avoiding the use of body waste for *makatu* (sorcery). The burying of the *whenua* (placenta) in a secret place would, therefore, have been a practical, as well as a spiritual, action. Maori often chose places such as *urupa* (burial places) or territorial boundaries that they regarded as eternal and unchangeable, to dispose of the *whenua*.⁴⁴¹

The breakdown of traditional practices and beliefs, and incomplete understanding of the new technology, resulted in the spread of disease, increasing Maori mortality, especially infant mortality. The practice of having large gatherings such as *tangihanga* (funerals) lasting some days, with large groups of people visiting villages to honour the dead, readily encouraged the spread of diseases such as typhoid, while overcrowding and poor ventilation encouraged the spread of respiratory disease including measles, influenza and tuberculosis.⁴⁴²

When hospitals began to be established in the middle of the nineteenth century they did not cater for Maori; hospital boards were reliant on fees. Maori paid no rates and therefore no hospital board levies. Lange asserts that the fear of not being able to pay medical fees probably killed more

⁴⁴⁰ R. Lange, *May the People Live*.

⁴⁴¹ H. Tupara, personal communication, 2010.

⁴⁴² R. Lange, *May the People Live*.

people than any practices of *Tohunga*.⁴⁴³ Hospitals were a new concept even for Europeans, and were seen by many as a place for people to die.

Women's Place in Maori Society

According to Mikaere the most far-reaching consequence of colonisation on Maori was that it destroyed the balance in Maori society. This had particularly dire effects for Maori women. In Mikaere's analysis patriarchal Christian, European settler society "colonised" *tikanga* Maori so that women were defined as "powerless political nobodies", to the extent that the colonising values were accepted and internalised over time by Maori, who then claimed the patriarchal values as their own.⁴⁴⁴ Some Pakeha historians also argue along similar lines. For example, James Belich discusses the position of women in Maori society and gives examples of wife beating, but balances this with examples of the lack of family violence commented on by Marsden and the missionaries. Belich theorises that the treatment of women depended on their status in society, rather than their gender.⁴⁴⁵

Local customs that were studied by early writers were often generalised as 'Maori custom' when they were not necessarily common to all Maori; Best's study of the *Tuhoe* people is one example where generalisation is an issue, so descriptions of Maori birth practices (like Best's) do not represent the birth practices of all Maori.⁴⁴⁶

Mikaere gives an overview of how the position of Maori women in their communities changed during the nineteenth century, from the family model that was based on a Maori world view of balance, which saw "men and women as essential parts of a collective whole [...] the survival of the whole was absolutely dependent on everyone who made it up".⁴⁴⁷ She emphasises the degree

⁴⁴³ Tohunga, often misnamed 'witchdoctors' were experts in particular fields. While some may have dealt with health, or magic, or genealogy, others were expert tattooists; R. Lange, *May the People Live*.

⁴⁴⁴ A. Mikaere, *The Balance Destroyed*, p. 2.

⁴⁴⁵ J. Belich, *Making Peoples*.

⁴⁴⁶ H. Tupara, personal communication, 2010.

⁴⁴⁷ A. Mikaere, Maori Women: Caught in the Contradictions of a Colonised Reality, *Waikato Law Review: Taumauri*, 2, Article 6, Hamilton, 1994, p. 128.

of freedom and flexibility Maori women held, pointing out that in Maori society divorce was accepted, that there was no transfer of property involved in marriage and that the woman always remained part of her own *whanau*, even if she lived with her husband's *whanau*. Both *whanau* were involved in the placing of children in the event of divorce, and that severe punishment by the woman's *whanau* could follow if a man assaulted his wife.⁴⁴⁸

Perhaps because of their relative freedom, Maori women were perceived by the missionaries as undisciplined and immoral, and by the colonial men as "easy partners" or as wives in the absence of available European women.⁴⁴⁹ The missionaries hastened to establish schools to teach Maori women Christian values and housekeeping skills.⁴⁵⁰ Mikaere contends that the collectivism of Maori life could never be compatible with the "settler ethic of individualism",⁴⁵¹ and that the inevitable disruption of traditional Maori life and the moulding of women into 'good colonial wives' made them dependent on their husbands and increased their vulnerability, as more women became less supported and protected by their *whanau* and *hapu*.⁴⁵²

Maori women continued to birth traditionally in the nineteenth century, but in a less healthy and dangerously changing environment, with loss of lands, people, culture, and loss of health and economic stability, amidst the confusion and uncertainty of being caught between traditional Maori and opposing colonial values in a new world. Lange writes, "Survival of the old ways combined with incomplete acceptance of certain aspects of the new ways" created "marginal economic existence" for Maori, especially after the land loss following the 1860s further reduced their standard of living.⁴⁵³

⁴⁴⁸ A. Mikaere, *Maori Women*.

⁴⁴⁹ L. Smith, quoted in A. Mikaere, *Maori Women*, p. 129.

⁴⁵⁰ C. Fitzgerald, Ed., *Letters from the Bay of Islands*.

⁴⁵¹ A. Mikaere, *Maori Women*, p. 130.

⁴⁵² A. Mikaere, *Maori Women*.

⁴⁵³ R. Lange, *May the People Live*, p. 28.

Settling into a New Country

Leaving the familiarity of home and family, usually forever, settler women endured the ordeal of a sea voyage lasting between four to nine months under sail.⁴⁵⁴ Needing to feed and care for their families, often in very restricted, hot or cold and damp spaces, they gave birth on board ship, where all were supine to diseases exacerbated by the overcrowded and unhygienic conditions. Sometimes battened down between decks in the heat in bad weather for days, even ‘good’ voyages had their problems. In a letter to home in England, Susannah Barben wrote

We had a good voyage, as is said by those who understand sea voyages, but I assure you I did not like it well except in fine weather; besides, myself and children could not eat the biscuits [...] we were nearly starved.⁴⁵⁵

Others did not have as good a voyage; Susannah Chamberlain’s son Edwin was one of “15 deaths, mostly children” that occurred on the *London* that sailed to Aotearoa New Zealand in 1942.⁴⁵⁶ Simpson suggests that despite the numerous deaths of immigrant children on board ship that were recorded, the majority of babies survived, and posits that many of the immigrant children who died may not have been healthy enough to withstand the voyage because of pre-existing disease.⁴⁵⁷ This is possible, as many immigrants were leaving unsatisfactory conditions in their homelands. A letter to the editor published in 1875 shows that “how to bring immigrants to the colony free from disease” was of longstanding concern to the “Agent-General and the Government of New Zealand.”⁴⁵⁸

Many privations awaited the majority of settlers. The earliest were accommodated in Maori *whare* (huts), or used canvas tents, at least until some other accommodation was built, but not everyone had some form of shelter available on arrival.⁴⁵⁹ Cooking needed to be done outside for

⁴⁵⁴ H. Simpson, *The Women of New Zealand*, Allen and Unwin, London, 1962.

⁴⁵⁵ S. Barben, in M. Macgregor, *Petticoat Pioneers*, p. 4.

⁴⁵⁶ M. Macgregor, *Petticoat Pioneers*, p. 34.

⁴⁵⁷ H. Simpson, *The Women of New Zealand*.

⁴⁵⁸ ‘Critic’ Letter to the Editor, *Evening Post*, Vol. XII, Issue 59, 7 September, 1875, p. 2.

⁴⁵⁹ F. Porter, C. MacDonald, Eds., *My Hand will Write*.

fear of fire, and this was to continue for most women for decades, as fire was a major risk even when more substantial houses were built.

Settlers moving out into the country-side often travelled for weeks over wearying and difficult terrain to reach their destinations, sometimes by sea, sometimes by horse or bullock wagon, more frequently on foot.⁴⁶⁰ Susannah Chamberlain's trip in 1856 from Wellington to the Wairarapa, her two young daughters in packing cases tied to bullocks, and carrying all their worldly possessions would be reasonably typical.⁴⁶¹ When settler women reached their destination, whether it was the gold fields of Otago, or like Jensine Thomsen, the Seventy Mile Bush of the Wairarapa, hard work was required to clear a site and build a home.⁴⁶² Often the first home was a *raupo whare*; a Maori hut built using local vegetation, with a dirt floor. Macgregor comments that for the average assisted immigrant:

The first homes depended upon the materials available in the localities of settlement, and for a time they continued to live in tents until bark or slab shacks could be erected.⁴⁶³

The women settlers were from across the social spectrum, but even the more economically advantaged among them, who later built better homes, usually lacked home help and had to make the transition from drawing room hostess to becoming cleaner, cook, laundress, and often gardener and farmer. For most colonial women maintaining a household in Victorian New Zealand required physical strength and endurance, excluding, perhaps, the few who could maintain servants at a time when servants were difficult to find, and, because of the shortage of European women, even more difficult to keep.⁴⁶⁴

⁴⁶⁰ H. Simpson, *The Women of New Zealand*.

⁴⁶¹ M. Macgregor, *Petticoat Pioneers*.

⁴⁶² M. Macgregor, *Etiquette and Elbowgrease: Housekeeping in Victorian New Zealand*, Reed, Wellington, 1976.

⁴⁶³ M. Macgregor, *Etiquette and Elbowgrease*, p. 3.

⁴⁶⁴ M. Macgregor, *Petticoat Pioneers*.

Settler and Maori Women's Health and Fertility

Settler women's work was usually physically extremely hard. Families of between seven and fourteen children are commonly mentioned in literature describing their lives.⁴⁶⁵ Despite an increase in infertility, Maori families became larger than in pre-colonial times.⁴⁶⁶

Houghton's research pointed to most 'prehistoric' Maori women actually bearing an average of three to four children each,⁴⁶⁷ but in the nineteenth century Maori women commonly had many more children, and families of fifteen and more were not unusual.⁴⁶⁸ Maori fertility rose until it matched and then overtook Pakeha fertility in the 1880s.⁴⁶⁹ Pool points out that "Pakeha fertility was high from the earliest years of colonisation, because, for women, marriage was at young ages, and almost universal."⁴⁷⁰ He suggests that this was probably also true for Maori, although that does not explain why their families were smaller in the early nineteenth century, and why they became larger during the course of the century, finally overtaking the Pakeha family size.

Conclusions can be drawn as to some of the reasons for this increase in fertility in Maori women. Houghton described the prehistoric diet as gritty and fibrous, and although adequate certainly not highly nutritious. He asserted that because of this diet there would be two effects on Maori fertility. Firstly, menarche would occur in the late teenage years thus reducing the number of babies a woman would bear during her lifetime. Secondly, that the diet would make long-term breastfeeding a natural and inevitable phenomenon, resulting in babies being well spaced and therefore less per woman.⁴⁷¹ The dietary and lifestyle changes that occurred with colonisation are likely to have caused earlier menarche, as Houghton explains:

⁴⁶⁵ F. Porter, C. Macdonald, Eds., *My Hand will Write*.

⁴⁶⁶ R. Lange, *May the People Live*.

⁴⁶⁷ P. Houghton, *The first New Zealanders*.

⁴⁶⁸ R. Lange, *May the People Live*.

⁴⁶⁹ I. Pool, A. Dharmalingham, J. Sceats, *The New Zealand Family from 1840*, Auckland University Press, Auckland, 2007.

⁴⁷⁰ I. Pool, *The New Zealand Family*, p. 18.

⁴⁷¹ P. Houghton, *The First New Zealanders*.

When food is not always abundant, when perhaps there are periods of seasonal shortage, or deficiencies in some dietary components, menarche occurs at about seventeen years of age. It is clear from various historical records that this was also about the time of onset in Europe until this century. With improved nutrition and without the seasonal shortages the age of menarche has dropped steadily in the western world.⁴⁷²

Changes to a limited and fibrous diet,⁴⁷³ particularly the introduction of commodities such as meat, milk, flour, and potatoes, to the Maori diet are also likely to have offered opportunities for the early introduction of supplementary foods to babies, and thus early weaning would have reduced the spacing between children and contributed to the large size of Maori families. Lange asserts,⁴⁷⁴ and this is supported by Pool, that infant mortality was so high in the nineteenth century, that only one in three Maori babies lived to maturity.⁴⁷⁵ He states that although breastfeeding, many women introduced other food very early, and also adopted bottle feeding using unhygienic practices, including using unpasteurised cow's milk, or flour and water in lieu of milk.⁴⁷⁶

Presumably Maori women learned such practices from the settler women, as the literature shows that settler women were also offering supplementary feeds and weaning their babies relatively early often resulting in "yearly babies".⁴⁷⁷ Maori women who participated in the care of children in their whanau and hapu may have welcomed supplementary infant feeding as an advantage. It could be speculated that conforming to Victorian ideas of marital duty may also have contributed to the increasing size of Maori families. Banks points out in relation to settler women that:

Women had little control of their childbearing. Continuing to breastfeed, or wet nursing the infants of others, provided some space between pregnancies as women utilized the fertility suppressing nature of breastfeeding. Complaining of a sore throat could see women avoiding sexual intercourse, and therefore,

⁴⁷² P. Houghton, *The First New Zealanders*, p.148.

⁴⁷³ R.E Wright-St Clair, *Early Accounts of Maori Diet and Health*.

⁴⁷⁴ R. Lange, *The revival of a dying race: Unpublished MA Thesis, University of Auckland, 1972*.

⁴⁷⁵ I. Pool, *The New Zealand Family*.

⁴⁷⁶ R. Lange, *The revival of a dying race*.

⁴⁷⁷ F. Porter, C. Macdonald, Eds., *My Hand will Write*, p. 366; S. Goldsbury, *Behind the Picket Fence*.

delaying conception. The 'kindness' or 'understanding' of the husband enabled some women to have a two year gap between children.⁴⁷⁸

This is illustrated in the discreet remarks of Lucy Johnson, written in a letter to her sister after suffering a sore throat, "I am certainly stronger [...] and am almost sorry for it as I know it is the dawning of misfortune. Still I have had a good spell."⁴⁷⁹

A large family is harder to sustain economically, whether Maori or European, and the physical stress of bearing many children has the potential to contribute to higher maternal mortality in various ways. Diseases such as tuberculosis, respiratory disease associated with smoking (and for Maori women, with smoke-filled whare), recurrent chest infections, and diseases such as rheumatic fever that can cause life threatening heart and kidney problems, were exacerbated by pregnancy and labour. These diseases are associated with overcrowding and poor socioeconomic status. There is increasing risk of foetal malpresentation with the potential for obstructed labour with each successive pregnancy, and importantly for the purposes of this thesis, there is a high risk of anaemia.

Anaemia, in the case of highly multiparous women, is usually due to each baby using maternal iron stores for growth. When a woman has many children, particularly if she also has an inadequate diet, the cumulative effect of the loss of iron to the mother causes anaemia; the woman does not have the iron stores needed so that her blood can properly transport oxygen through her body. The woman's body compensates for this and can often manage reasonably well, but if she is in a physically stressful state her body may fail to cope. The most dangerous physical stress in this circumstance is that of pregnancy and childbirth, and the most dangerous complication for her during childbirth is the risk of bleeding during or after the birth of the placenta, as did Marianne Williams an hour after the birth of her baby daughter.⁴⁸⁰

The larger the family, the higher the potential risk, so that in nineteenth century New Zealand, a high maternal mortality could be expected, even more so when coupled with the poverty, poor

⁴⁷⁸ M. Banks, *Homebirth Bound*, p. 40.

⁴⁷⁹ F. Porter, C. Macdonald, Eds., *My Hand will Write*, p. 339.

⁴⁸⁰ J. Williams, quoted in C. Fitzgerald, Ed., *Letters from the Bay of Islands*.

health and overcrowding particularly associated with the Maori population. Moon claims that 95 percent of Maori lived in rural areas by the 1880s, and comments that “The physical ill-being of the Maori was exacerbated by a huge increase in alcoholism and tobacco usage. Malnutrition was common, and in some cases even starvation took place.”⁴⁸¹ A custom that would have contributed to the poor nutritional status of Maori women is the food hierarchy where women feed children and husbands before they feed themselves.⁴⁸²

From Traditional to Medical Care

While in the early nineteenth century most traditional midwives still had no formal ‘training’ there were midwives, usually from the professional classes, who had paid other midwives to instruct them. By the mid nineteenth century education for women to become nurses or midwives was becoming available in training hospitals, and educated nurses and midwives from Britain were beginning to settle in New Zealand. An example was Mrs Graham, an Irishwoman who trained as a nurse and midwife in Australia, who worked as a midwife in the Hokianga from the 1870s.⁴⁸³ However, many New Zealand women still did not have access to any midwifery care.

An example of a Maori woman requiring help is given as a case-study in the 1887 *New Zealand Medical Journal*. This case study demonstrates that new medical technology from Europe had reached New Zealand. The woman was the recipient of anaesthesia, the uterotonic drug ergot,⁴⁸⁴ and antisepsis. Dr. Thomas Bell, then of Wanganui, related that:

I was sent for to see a Maori woman living 16 miles from town, in labour. Found her to be a multipara; had had 10 children; former labours easy and short. I was told that the present case had commenced 24 hours before; that the pains had continued steadily for 11 hours; and that a hand and an arm had been protruded from the passage. Sixteen hours after labour had commenced she was seen by a missionary who had given

⁴⁸¹ P. Moon, *Maori Social and Economic History to the End of the Nineteenth Century*, Huia Publishing, Auckland, 1993.

⁴⁸² H. Tupara, personal communication, 2010.

⁴⁸³ Greymouth Branch of the National Council of Women, *Women of Westland 1860 – 1960*, Greymouth Evening Star Co Ltd, Greymouth, 1959.

⁴⁸⁴ Ergot was very useful for treating and preventing postpartum haemorrhage but it was unreliable, still variable in its action because the active component had not been identified.

two or three doses of ergot – resulting first in a marked increase in the strength of pains, and then in their subsidence.⁴⁸⁵

This is an example of a woman who had previously birthed normally but whose birthing was now complicated by a malpresentation. Malpresentations, such as a baby presenting with a hand or arm are often associated with women having had large numbers of babies. This is because their overstretched and lax abdominal musculature provides little support to keep the baby in the correct position for birth. The malpresentation resulted in an obstructed labour where the baby was unable to be born. The uterotonic action of the ergot would have made the contractions stronger until the uterus ruptured, when the contractions would have stopped.

The ergot administered by the missionary was derived from a fungal infection of rye, *Claviceps purpurea*. Midwives had known of it and had used infusions of it to expedite slow labours from the sixteenth century. They had lessened their use of it because it could endanger the lives of the mother and the baby by causing ruptured uterus in obstructed labour.⁴⁸⁶ In 1808, the American, Dr. John Stearns, had published an enthusiastic account of how it could be used to hasten labour.⁴⁸⁷ An equally enthusiastic booklet produced in London in 1828 by a surgeon, W. Michell, also advocated ergot of rye for use in labour and also as a way to prevent postpartum haemorrhage.⁴⁸⁸ The result over some years was the death of many women and babies from rupture of the uterus. However, ergot and its derivatives came to be used as a very important drug to expedite the birth of the placenta, and for treating postpartum haemorrhage.

Dr Bell continued his case study:

Some traction had been made on the baby's arm by the patient's brother, who seemed to take charge of the confinement. [...] On arrival I found the woman lying on the floor of a whare, very exhausted; pulse rapid; but very weak; extremities, especially legs, cold; skin, clammy; face, pinched. She complained of great tenderness

⁴⁸⁵ T. Bell, Rupture of Uterus; Recovery, *New Zealand Medical Journal*, Vol. 1, 1887 – 88, p. 188.

⁴⁸⁶ M. O'Dowd, E. Philipp, *The History of Obstetrics and Gynaecology*, Parthenon Publishing Group, New York, 1994.

⁴⁸⁷ M. O'Dowd, E. Philipp, *The History of Obstetrics*.

⁴⁸⁸ W. Michell, *On Difficult Cases of Parturition and the use of Ergot of Rye*, Thomas and George Underwood, London, 1828.

on pressure on abdomen; palpation, painful. The hand and arm protruding from the vagina were swollen and blue.⁴⁸⁹

Thomas Bell continued the story of his attendance on this clinically shocked woman. He gave chloroform and then gently entered the uterus with the intention of grasping the baby's feet and turning the baby so that it could be born as a breech birth, but as he did the manoeuvre the foetal arm "slipped up" and the baby presented 'face to pubes'⁴⁹⁰. He was then able to put forceps onto the baby "and delivered the foetus quickly and easily, the passage being roomy. The placenta was at once extracted with the hand, and a quantity of dark grumous [sic] blood escaped".⁴⁹¹

After he delivered the placenta, Dr Bell checked inside the uterus and was "alarmed to find a gap in the lower part of the uterine wall" through which he could feel the woman's intestines. He put his hand through the gap and from the outside of the uterus he could feel it contracting, but noted that "Antiseptic precautions had been used throughout." The woman, not surprisingly, took a while to recover from the chloroform. Dr Bell warned the relatives that she would not live "but had warm bottles, &c., applied."⁴⁹²

The next day she had a swollen belly and was in much pain for which he gave her opiates, being surprised that she was alive. He visited for several days and she still lived and had moved her bowels and passed urine. He continued the opiates, then left the district, and heard six weeks later that she was alive and working as usual. He attributed the rupture to the "injurious use of ergot and forcible traction," but also recognised that his manipulations "possibly, (though very improbably)" may have caused injury.⁴⁹³

Bell's account is an example of a Maori woman who was very likely to have been using traditional birthing practices, but her high parity with a malpresentation led to an obstructed labour. Inappropriate use of a drug that was introduced to medical practice in the nineteenth century

⁴⁸⁹ T. Bell, Rupture of Uterus; Recovery, p. 188.

⁴⁹⁰ Baby is lying in a head first position but facing forward.

⁴⁹¹ T. Bell, Rupture of Uterus; Recovery, p. 188.

⁴⁹² T. Bell, Rupture of Uterus; Recovery, p. 189.

⁴⁹³ T. Bell, Rupture of Uterus; Recovery, p. 189.

exacerbated the problem, but the ability to access medical attendance, in this case, saved her life, despite the administration of ergot almost ending it. She must have been a very tough woman to survive such an ordeal.

Bell later wrote an account of Maori birthing in the *New Zealand Medical Journal* of 1890 in which he claimed that most Maori women birthed well, and that the woman with the ruptured uterus that had been the subject of his case study was an exception:

Maori women, as a rule, have little trouble at their confinement, the whole labour may be over in a few hours, and the mother returns to her work next day, or sooner. Mr. Djerks, a missionary at Maxwellton, tells me he has seen Maori women working in a field, go suddenly into the scrub, be confined and return to the field again. I have not seen such cases myself, but believe it quite possible. I have also heard of well-authenticated cases where the woman has been confined by the roadside, and after a short rest has picked up her child and gone on. The Maori women say their labours are so easy because they wear no tight clothing during pregnancy, and because they are confined in a kneeling posture. Maternal deaths are rare.

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Bell also stated that he had never encountered Maori midwives adding that the husband or *tohunga* acted as the midwife. In the case of the Maori woman who ruptured her uterus it appeared as though her brother attended her in labour, but discussing this case again Bell remembered him as “the brother or husband.”⁴⁹⁵ He added that malpresentations were rare and that he had only ever attended that one case. His assertion that maternal deaths are rare is at odds with Lange’s claims of increasing maternal mortality. This may be because Bell’s article was published in 1887, therefore he was writing about the period before Maori fertility overtook that of Pakeha in the 1880s, or perhaps conditions were less dire in the district in which he lived.

Mortality and Maori Women

That women were increasingly at risk of dying in childbirth during the nineteenth century is confirmed by the words of Hori Ropiha, of Waipawa who, in 1893 wrote to Elsdon Best, (in Maori), saying:

Women of the Maori folk did not die in childbirth [formerly]; although a native woman might give birth to many children, yet she would not in any case die. Maori women were of a fine type, robust and healthy, and wise in matters pertaining to childbirth; they did not succumb. In these times many native women die [in

⁴⁹⁴ T. Bell, *Medical Notes*, p.131.

⁴⁹⁵ T. Bell, *Medical Notes*, p. 132.

childbirth]; the women who so die in a single year may perchance amount to one hundred, or even as much as two hundred. [...] Now, this affliction that causes women to die emanates from the use of European medicines, also from European foods, also from European clothing; the complaints that afflict Europeans are more numerous than the famed *tairo* of Kupe. Another source of weakness is the fact that the *mana* of the Maori has been abandoned, and his ritual formulae, and his *tapu* and all its rules, his clothing and his foods. The Maori folk have become Europeanized, as also the foods, and clothing, and remedies, and so many complaints now afflict the Maori women. [Best's insertions and emphasis]

Best comments that these words represent “a common conviction among men of his generation”.⁴⁹⁶

Bell mentions that birth practices differ in different places, noting that in Wanganui the woman was not kept private: “neighbours come and talk to her during labour.” Bell describes the cutting of the umbilical cord about four inches (120mm) from the child and specifically notes that it was not tied, noting that the placenta was buried, as was the *pito* (umbilical cord) after it drops from the child's navel. He further notes that it was considered unlucky to burn the placenta.

He admits that PPH did occur, although he expressed doubt about 1883 claims by a Dr. Bennett in the *Australian Medical Journal* that death from PPH was common, stating that he could not verify that statement. He describes practices that Maori used to treat PPH when it did occur, describing herbal fumigants and the method, described in the previous chapter, where the woman lay in a creek. He also describes the woman standing in cold running water up to the armpits while her body was massaged downwards to expel the afterbirth.⁴⁹⁷

As this discussion has shown, Maori in the nineteenth century continued with their own traditional birthing practices but these were changing as tribal authority and the rules of *tapu* and *noa* became weakened by the disruption of colonisation. Maori women who increasingly suffered from the dislocation, poor housing, lack of sanitation and changes to their social and economic wellbeing previously described, were increasingly having very large families, a very different birthing situation from that of earlier years. The deterioration in Maori childbirth practices to a situation of sub-optimality is very obvious when their birthing is analysed using the theoretical

⁴⁹⁶ E. Best, *The Whare Kohanga*.

⁴⁹⁷ T. Bell, Medical Notes.

framework. Negative factors include the increase in family size, poor nutrition and the poor health suffered by many women.

Birth in the 'Bush'

At the dawn of the nineteenth century there were few trained nurses, doctors or midwives in the new colony and birth was generally a family affair. A medical perspective of maternity prior to 1904 came from Ken Pacey, a Wellington obstetrician:

There were a few trained midwives, consisting of a few women who trained in the British Isles and migrated to New Zealand, and an even smaller number who, at their own expense, had travelled to the British Isles to procure the necessary experience and qualification. These women's services were available to very few. Most women in pregnancy called for help on a relative, a kindly neighbour or a self-styled midwife, a woman, who with no real training, engaged in this calling. Some of them were probably knowledgeable and skilful; what they lacked in these respects they often made up for in kindness. Attendance at many births, intelligent observation and instruction from doctors with whom they worked gave them a rugged efficiency.⁴⁹⁸

New Zealand's geography with poor or non-existent roads meant that for many women, both Maori and European access to 'trained' help was not possible, particularly in the early years. An example of this isolation is related by Mark Wallace who describes a group of three Pakeha families living in the South Island with eighty miles and eight un-bridged rivers between them and a doctor. Thirty-six children were born and bred there and all but one, who died as a two year old, his sister, reached adulthood.⁴⁹⁹ A less successful story, and one that demonstrates the isolation of families, is that of a Mrs Paddy Nolan of the West Coast of the South Island:

a young mother living at Karangarua was expecting another baby. When serious complications arose a group of men set to work to carry her, in relays, from there to Hokitika, and eventually reached Hende's Ferry, a distance of over one hundred miles. Her mother and sister were the only women accompanying her, and things looked so desperate that they sent for the Ross doctor to come down on horseback. In spite of all their efforts, she died there that night.⁵⁰⁰

Another example of isolation is the story of Susannah Cullen, a widow of Maungaturoto, who became a midwife to support herself and her twelve children. Susannah, who had no formal

⁴⁹⁸ K. Pacey, quoted in C. Manson, C. Manson, *Doctor Agnes Bennett*, Michael Joseph Ltd, London, 1960, p. 48.

⁴⁹⁹ M. Wallace in R. Jones, E. Hawker et al., Eds., *Women of Westland and Their Families*, Westland Branch of the National Council of Women, 1977.

⁵⁰⁰ G. Northcroft, in R. Jones, E. Hawker et al., Eds., *Women of Westland and Their Families*, p.8.

training, “became the midwife and nurse for the whole district”.⁵⁰¹ The closest doctor was in Auckland two days away “by land and sea”. Susannah also stitched cuts and set broken bones:

Susannah not only delivered the babies but did the washing, cleaning and cooking for the family [...] when called out day or night Susannah would ride, then leave the horse, get into the rowing boat and go to a farm down the river and then perhaps have a long walk to the farmhouse.

That she was well respected was shown when a pregnant woman went to see the Auckland doctor who is purported to have told her “there was no need to have travelled all this distance when you have a capable woman like Mrs Cullen.”⁵⁰² Some areas had access to doctors episodically but women acted as midwives and nurses in their absence:

The doctor from Akaroa travelled around the district every three months. Between his visits Mrs John Archer acted as nurse and midwife. On many a night a horseman would ride up to her home telling of some case of sickness, and she would mount her horse and ride off, perhaps many miles, sometimes in cold or storm, to her case.⁵⁰³

That midwives were often held in high regard by their communities is also made explicit:

Women gave their services as nurses, and midwives rode over rough tracks and crossed dangerous rivers. Of all our pioneering women they were the most loved and respected because of their errands of mercy, for they spared no thought for themselves, and faced many dangers with indomitable spirit.⁵⁰⁴

That midwives, trained and untrained, were held in great esteem by their communities and often had excellent outcomes, was also the case in other colonial situations, for instance in Newfoundland and Labrador, where they are described as having done “amazingly well”.⁵⁰⁵

Settler wives from isolated areas sometimes went to the homes of family⁵⁰⁶ or friends in the developing small towns to have their babies near some help, usually from a woman who had some

⁵⁰¹ National Council of Women, *A New Earth: Pioneer Women of New Zealand*, National Council of Women of New Zealand, Tauranga, 1975, pp. 36, 37.

⁵⁰² National Council of Women, *A New Earth*, p. 37.

⁵⁰³ A. Woodhouse, Ed., *Tales of Pioneer Women*, Whitcombe and Tombs Ltd, 1940, P. 207.

⁵⁰⁴ Enid Hawker, in R. Jones, E. Hawker et al., Eds., *Women of Westland and Their Families*, p.8.

⁵⁰⁵ P. Roberts, cited in E. Brown, *Labours of Love: Midwives of Newfoundland and Labrador*, DRC Publishing, St Johns, New Foundland, 2007, p. v.

⁵⁰⁶ J. Stanley, *Matamata Women 1824 – 1993*, Matamata Historical Society, Matamata, 1993; M. Macgregor, *Petticoat Pioneers*.

experience of birth. An example of this was Elizabeth Colenso, a mission wife who became the first European woman to live in Hawkes Bay. She had suffered a difficult birth with her first child, so in her second pregnancy she made “the long and hazardous” journey of 130 miles, by foot, to *Turanganui* (Gisborne), to be cared for by Mrs William Williams.⁵⁰⁷

Some isolated women, like Sarah Lambert on the Wairarapa coast, and Jessie Stewart of Nuhaka, near Wairoa, received help from local Maori. Some trained maternity nurses and doctors did offer care but most women were cared for by family members,⁵⁰⁸ sometimes husbands,⁵⁰⁹ neighbours,⁵¹⁰ or traditional midwives. The historical record is peppered with the names of individual women who acted in this capacity. An example was Mary Ellen Holmes who had learned midwifery by assisting women on the ship coming to New Zealand as a young single woman. Others included Elizabeth Kilbride,⁵¹¹ Granny (Sarah Ann) Cripps of Masterton, Sarah Jane Herbert, who was known to walk fifteen miles along Maori tracks, through heavy bush, to attend births. Catherine Dahm, Nielsine Paget, and many others came by their knowledge either by working with other midwives or by just attending births and learning from experience.⁵¹² Some midwives worked with the doctors, like Sarah Higgins, the mother of eleven children, who learned by assisting Dr Oldham in Nelson.⁵¹³ They were usually, but not always, married women who had borne children themselves, sometimes widows who needed work to maintain themselves and their families. Women helped each other, and learned midwifery in the process. They would often take payment ‘in kind’ as did Mrs Evans, a Wairarapa “nurse” who was paid with a 42 pound bag of sugar for attending a birth in 1863.⁵¹⁴

⁵⁰⁷ M. Macgregor, *Early Stations of Hawkes Bay*.

⁵⁰⁸ M. Macgregor, *Petticoat Pioneers*.

⁵⁰⁹ B. Harper, *Petticoat Pioneers: South Island Women of the Colonial Era*, Book Three, Reed, Wellington, 1980.

⁵¹⁰ M. Macgregor, *Petticoat Pioneers*; F. Porter, C. Macdonald, Eds., *My Hand will Write*.

⁵¹¹ J. Stanley, Ed., *Matamata Women*.

⁵¹² M. Macgregor, *Petticoat Pioneers*.

⁵¹³ B. Harper, *Petticoat Pioneers*.

⁵¹⁴ C. Bannister, *Early History of the Wairarapa*, 2nd edition, Cadsonbury Publications, Christchurch, 1999.

The well known and treasured 'Granny' (Agnes) Harald of Stewart Island, had some apprentice-type training in her Canadian homeland. She was part Indian, and used traditional herbal remedies such as raspberry leaf and tansy, brewing herbal teas and infusions to help labouring women. She encouraged women to birth upright, kneeling or squatting, leaving the reward of resting in bed until after the birth.⁵¹⁵

Some midwives would 'take in' women into their own homes, this practice becoming more common over the years and expanding, in some cases so that by the twentieth century they had become small 'nursing homes'.⁵¹⁶ Midwives who went to the women's homes often stayed for some weeks looking after the household; but not all stayed as long as expected, as Martha Adams discovered:

the old woman William had engaged came up and on June 25, 1852, our third son was born, with snow on the ground for two days [...] The baby was a few weeks old when the old woman, who though rough was very kind to me, came and said, "Well Missus, you be up and about now, and I must go. I can't get on any longer without a drink and there's nothing here but tea."⁵¹⁷

Because of the invisibility of practices used by women we can only conjecture as to how they birthed the placenta. It would be reasonable to expect that women who had been helped by Maori when they birthed would learn Maori methods, such as remaining upright for the birth, and would, in their turn, use such methods when they helped other women, perhaps family members.⁵¹⁸ It would also be reasonable to assume that working class settlers would be more inclined to remain upright for birth, using the traditions of their home country, and, if birth was unattended the woman's instincts would have played a key role. In these cases, women would be more likely to allow the placenta to birth naturally. While Maori woman helped European, sometimes the opposite occurred.⁵¹⁹ While Maori practices would have had an influence on how some settler women in New Zealand birthed, with the increasing colonisation of Maori, European

⁵¹⁵ B. Harper, *Petticoat Pioneers*.

⁵¹⁶ C. Manson, C. Manson, *Doctor Agnes Bennett*.

⁵¹⁷ M. Adams, quoted in M. Macgregor, *Petticoat Pioneers*, p. 6.

⁵¹⁸ J. Boyd, *Daughters of the Land*.

⁵¹⁹ J. Stanley, *Matamata Women*.

practices were also being adopted by Maori. Maori birth also appears to have been moving indoors as evidenced by Doctor Bell's description, "On arrival I found the woman lying on the floor of a *whare*." Mikaere confirms that traditional practices were adapted to the new environment and that the use of the *whare kohanga* had changed with birth moving into a room in the woman's house in which all furniture other than those required for the "birth and the lying –in period",⁵²⁰ was removed. Although Mikaere explains that many traditional practices had been retained, albeit with some modifications, the change to indoor birthing and the introduction of a lying-in period clearly show the influence of colonisation.

Medical Midwifery

It would be logical that urban women would be more frequently attended by midwives and nurses with some training, supported by doctors, and would therefore have been more likely to have birthed in a bed, being treated by practitioners using the practices described in the medical and midwifery textbooks of the day. There was no understanding of asepsis or antisepsis until late in the century, and doctors, who readily intervened in the normal processes of birth, could have also been attending other patients with septic lesions, thereby becoming unwitting carriers of puerperal sepsis. Puerperal sepsis did kill women in New Zealand towns.⁵²¹ It is unclear whether sepsis as a cause of death was as common in the rural areas.⁵²² Internationally maternal mortality from sepsis is known to have been much higher in urban areas. A doctor was not necessarily the safest choice for women.⁵²³

The role of hygiene was only beginning to be understood in New Zealand medical circles at that time. A presentation on 'Antiseptic Midwifery' by a Dr. Hacon was given to the Canterbury Branch

⁵²⁰ A. Mikaere, *Mai te Kore kit e Ao Marama*, p. 8.

⁵²¹ F. Porter, C. Macdonald, Eds., *My Hand will Write*.

⁵²² S. Goldsbury, *Behind the Picket Fence*; Goldsbury records that the early missionary women experienced puerperal fever and conjectures that forceps may have begun to be used, as the incidence of fever increased after William Williams had arrived in New Zealand having apparently served "a "short apprenticeship".

⁵²³ For discussion debunking the myth that doctors were the safest birth attendants, see: M. Tew, *Safer Childbirth? A critical history of maternity care*; I. Loudon, Some international features of maternal mortality. For discussion of the safety of medical versus midwifery attendance in the nineteenth and early twentieth centuries, see: V. De Brouwere, *The Comparative Study of Maternal Mortality over Time*.

of the New Zealand Medical Association in October 1889, discussing hygiene measures for preventing infection and citing Semmelweis' work in reducing maternal deaths from puerperal sepsis.⁵²⁴ The traditional midwives, of course, also had no knowledge of asepsis, but were perhaps less likely to be in contact with infective matter, and more likely to be immersing their hands in water because of the need to wash the mother, baby, linen and perhaps also the environment, as the midwife often helped with the housework.⁵²⁵

Doctors dressed wounds as part of their daily practice and transmitted the infection to their obstetric patients. Most midwives, on the other hand, undertook no general nursing and did not come into contact with septic conditions.⁵²⁶

Not all the medical men in the colony had been respectable and well-trained,⁵²⁷ but towards the end of the nineteenth century the numbers and quality of doctors attending births were improving so that, by the early twentieth century, doctors were more available, at least in the urban areas. Traditional midwives or local experienced women remained the first choice for most working families, the services of a doctor being requested only if there were problems.⁵²⁸ But as doctors became more accessible, especially in the towns, they were called upon more often by those who could afford them, as having a doctor at a birth had become a mark of status.

Summary

Maori women birthed supported by generational knowledge and practice. Maori birthing, prior to the nineteenth century, with healthy women bearing fewer children, and remaining upright for the birth, appears to have been non-interventionist, and highly optimal when examined through the lens of the theoretical model. The women had less risk of infection because of the lack of internal examinations, or manual removal of the placenta. They were less likely to have been at risk of retained placenta and haemorrhage because of their upright birth posture and reluctance

⁵²⁴ Dr. Hacon, *Antiseptic Midwifery*, *New Zealand Medical Journal*, Vol. III, October, 1889.

⁵²⁵ M. Macgregor, *Petticoat Pioneers*.

⁵²⁶ Geddes, cited in I. Loudon, *Some International Features of Maternal Mortality*.

⁵²⁷ D. Dow, *Safeguarding the Public Health*. I. Loudon, *Some International Features of Maternal Mortality*.

⁵²⁸ G. Gibb in R. Jones, E. Hawker et al., Eds., *Women of Westland and Their Families*, p.73.

to interfere with the natural birth process. Early mother-baby contact and breastfeeding facilitated the birth of the placenta and reduced the risk of PPH. Maori birthing, prior to the changes brought about by European settlement, was healthy and the practices used would have facilitated both the birth of the baby, and the birth of the placenta.

This chapter has described Maori birthing prior to European settlement and demonstrated that it was optimal. This was to change as Maori health and wellbeing suffered from the socio-cultural disruption brought about by colonisation. Birthing for settler women was not as optimal as for Maori, however, traditional European birthing may have been improved by its transplantation to New Zealand as some of the less satisfactory practices are likely to have been discarded or altered in the new environment.

Traditional midwifery flourished but usually with untrained midwives. Many of these midwives had good reputations and were said to have very good outcomes. Descriptions of traditional birthing practices are lost, but there is some evidence that upright birthing was still practised. Traces on the historical record also suggest that traditional birthing in nineteenth century New Zealand was reasonably non-interventionist and instinctive, as opposed to the European medical midwifery that was becoming increasingly available in the late nineteenth century.

All women in New Zealand were subject to change and geographic and socio-cultural dislocation. Settler women, far from home and extended family support, had to create their own social networks. Maori, subject to all the ills induced by colonisation, were caught between survival of the old ways and “incomplete acceptance of certain aspects of the new ways.”⁵²⁹ Accurate statistics are not available, but the evidence supports the theory that the physiologically optimal Maori birthing was slowly changed by colonisation. Even while traditional practice continued, healthy birthing practices were undermined by Maori women’s poor health and increasing family size. Maori birthing was also being ‘colonised’ by medical birthing. With Maori women’s health

⁵²⁹ R. Lange, *May the people live*, p. 28.

and wellbeing deteriorating, by the early twentieth century when registration of death became mandatory, Maori maternal mortality had outstripped that of the settler women.⁵³⁰

Isolation was a key underlying factor affecting childbirth. Maori tended to live in more isolated areas, away from the new towns, enabling them to continue their traditional birthing until well into the twentieth century. Many settler women were also living away from the towns, breaking in land for farms with their husbands, some at the gold-fields, but with roads nonexistent or rudimentary, their ability to access medical help was very limited.

It is likely that this isolation may have had its benefits as well as its undoubted risks. The traditional midwives who served the rural areas were usually respected women, many, like 'Granny Harald' of Stewart Island used customary methods, such as having the mother kneel for birth, and had very satisfactory outcomes.⁵³¹ Doctors were few in number and usually urban-based. Although medical midwifery was advantageous in obstructed labour, when instrumental delivery was required, forceps were sometimes used injudiciously, and medical interventions combined with the customary lying-in enjoyed by the wealthier women, had the potential to place women having normal labours at higher risk of sepsis, haemorrhage, and vascular thromboses. In the nineteenth century medical training in obstetrics was very variable in quality, often just an optional extra.⁵³² It is likely that the women having normal births in the rural areas, who had competent traditional midwives, would have had better outcomes than urban women. Loudon writing on international maternal mortality wrote of the late nineteenth and early twentieth centuries commented:

It is ironic that well-to-do mothers who opted for private care in nursing homes and hospitals, paying a high fee for a normal delivery in the belief that they were buying the best available care, were actually subjecting themselves to a higher risk of dying than if they had stayed at home and employed a midwife.⁵³³

⁵³⁰ R. Lange, *May the people live*.

⁵³¹ M. Banks, *Homebirth Bound*; J. Donley, *Save the Midwife*.

⁵³² J. Donnison, *Midwives and Medical Men*.

⁵³³ I. Loudon, *International Features of Maternal Mortality*, p. 22.

The newly imported technologies of birth were demonstrated by the story of the woman who ruptured her uterus; antisepsis, anaesthesia and the uterotonic drug ergot. Semmelweis (1818 - 1864) published his findings in 1847,⁵³⁴ and by 1861 had proved that asepsis, particularly hand-washing, prevented puerperal sepsis, and Lister had developed methods of antisepsis by 1867.⁵³⁵ Their theories were only slowly accepted by the medical community and were not in universal use by 1900.⁵³⁶ Anaesthesia, in the form of inhalational ether and chloroform was useful in labour, and was of some use during manual removal of the placenta, but could cause uterine atony and predispose to postpartum haemorrhage. The rediscovered uterotonic drug, ergot, was very useful for treating and preventing postpartum haemorrhage but was unreliable, and variable in its action.

Practices used to birth the placenta, by women attended by traditional midwives are hidden because they were not discussed, and are not recorded. We can only speculate that they were a continuation of both Maori and Pakeha customary practice. Practices used by the medical profession, in contrast, are explicitly documented in textbooks and beginning to be documented in professional journals as case studies, and as analyses of practice statistics. Measured against the theoretical framework the medical childbirth practices, in the case of a healthy woman having a healthy birth, are questionable, producing a higher risk of complications such as sepsis, uterine inversion, postpartum haemorrhage and vascular thromboses.

The second part of this thesis, Chapters Three, Four and Five, has addressed the subsidiary research question: *What was the foundational knowledge of placental birth in New Zealand in the eighteenth and nineteenth centuries?*

The third part of the thesis, consisting of Chapters Six, Seven and Eight, will address the second subsidiary research question: *What factors changed the foundational knowledge to create the*

⁵³⁴ M. Thompson, *The Cry and the Covenant*, Landsborough Publications, London, 1959.

⁵³⁵ M. O'Dowd, E. Philipp, *The History of Obstetrics and Gynaecology*.

⁵³⁶ D. Dow, *Safeguarding the Public Health*.

practices that are used in today's world? Thus the next part of this thesis will examine and describe the evolution of the management of the birth of the placenta in the twentieth and twenty first centuries.

Chapter Six outlines and analyses the push toward medical control of midwifery, birth, and the uterus. This medical 'take-over' of childbirth was an international phenomenon. Chapter Seven traces the development and universal adoption of the prophylactic use of active management of the third stage of labour, and Chapter Eight explains how physiological placental birth re-emerged as a birth option in response to women's demand for alternative birthing practices.

Chapter Six: Regulating Midwives and Controlling the Uterus

Introduction

During the first half of the twentieth century new and improved forms of transport and communication made medical and hospital care progressively more accessible for all but the most isolated communities. The acceleration of change internationally with improved transport, new technologies such as electricity, and improved communication was reflected in maternity, which was irrevocably altered by the medicalisation and the increasing regulation of birth.⁵³⁷

This chapter outlines the process of the regulation of midwifery and its subordination by the medical profession, echoed by the increasing medical control of birth and of the uterus. These phenomena were paralleled in other western countries, including Australia, as the dominance of obstetrics expanded.⁵³⁸ The chapter begins by outlining the rise of medicine and demonstrating the medical profession's rising anti-midwife strategies. The regulation and subordination of midwifery and midwifery knowledge by medicine and the accompanying hospitalisation of birth is traced but the bulk of the chapter concerns the medical practices that were being used to manage the third stage of labour. The childbirth practices of the twentieth century are analysed using the theoretical model.

The Rise of Medicine

In the early twentieth century the numbers of qualified doctors had increased and they needed work. Unlike Britain, new English-speaking countries, such as Australia, America, Canada and New Zealand offered medical practitioners a chance to set up their own practice. Care of women in childbirth enabled the doctor to develop relationships with families, and was seen as a satisfactory

⁵³⁷ For more discussion on these issues, see: E. Papps and M. Olssen, *Doctoring Childbirth and Regulating Midwifery in New Zealand*, The Dunmore Press, Palmerston North, 1997; J. Stojanovic, *Midwifery in New Zealand 1904 – 71*.

⁵³⁸ For further information on the Australian experience, see: K. Fahy, *An Australian history of the subordination of midwifery*, *MIDIRS Midwifery Digest*, Vo. 17, No. 3, 2007, pp. 342 – 346.

way to increase clientele and develop a viable practice.⁵³⁹ This brought doctors into direct competition with midwives.⁵⁴⁰ Tew wrote:

Other English-speaking countries of the New World, Australia, Canada, New Zealand and South Africa, shared many of the characteristics of the USA, the social and economic ambitions of their growing populations and the professional ambitions of their doctors. These were as eager and as determined as their fellow migrants to stake their claims to future prosperity. The promising gateway to assuring their social importance was somehow to persuade their young compatriots that their medical assistance at childbirth was indispensable and far superior to what a midwife could offer.⁵⁴¹

An Example of Medical Propaganda

Medicine's rise began to impact on women, increasingly exerting a controlling influence on women and their birthing. A beautifully bound book for women, written by a doctor, '*The Woman Beautiful or Maidenhood, Marriage and Maternity*',⁵⁴² illustrates both contemporary practice and the medical profession's attitude toward midwives. The advice that birth is a natural process rarely requiring help was reiterated in several different ways:

In a natural labour very little assistance is needed, and the doctor is only required in the room occasionally to ascertain that things are going on rightly.⁵⁴³

Paradoxically and simultaneously the message was also being given throughout the book that a doctor's presence is necessary for birth to be safe. Amongst discussion about resuscitating the baby instructions are given that "The navel-string, as long as there is pulsation in it, ought not to be tied." It is suggested that if the cord is tied before the baby has cried "he will have but a slight chance of recovery."⁵⁴⁴ It is made clear that if the doctor is coming "such matters ought always to be left entirely to him".

⁵³⁹ For an example, see: F. Bowerbank *Doctor's Story*. Wingfield Press, Wellington, 1958.

⁵⁴⁰ For a description of medical life in the Wellington of the early 1900s, see: F. Bowerbank, *Doctor's Story*.

⁵⁴¹ M. Tew, *Safer Childbirth?* p. 51.

⁵⁴² M. Allen, A. McGregor, *The Woman Beautiful or Maidenhood, Marriage and Maternity*, WM Gribble, Thames, New Zealand, 1901; M. Allen, A. McGregor, *The Woman Beautiful or Maidenhood, Marriage and Maternity*, National Publishing Co, Philadelphia, 1904;

⁵⁴³ M. Allen, A. McGregor, *The Woman Beautiful*, p. 165.

⁵⁴⁴ M. Allen, A. McGregor, *The Woman Beautiful*, p. 176.

The afterbirth must never be brought away by the nurse. If the doctor have [sic] not arrived, it should be allowed to come away, (which, if left alone, in the generality of cases it usually will) of its own accord. The only treatment that the nurse should adopt is, that she apply, by means of her right hand, firm pressure over the region of the womb; this will have the effect of encouraging the contraction of the womb; of throwing off the afterbirth and of preventing violent flooding.⁵⁴⁵

It is suggested that if the placenta has not been born or there is flooding another physician should be called (the assumption is made that a doctor has been called). Instructions are given.

...but on no account should the nurse be allowed to interfere with it further [...] and not touching the navel-string at all, as we have known dangerous, and in some cases even fatal, consequences to ensue from such meddling. Officious nurses have been known, in their anxiety, to get the labor over by themselves without the doctors assistance, to actually tear away by violence the navel-string from the afterbirth – the afterbirth being the while in the womb – the blood in consequence flowing from the lacerated afterbirth in torrents; so that the moment the doctor arrives- if he fortunately arrive in time – he has been obliged, in order to save his patient’s life, to introduce his hand into the womb, and to bring the afterbirth bodily away. Meddlesome nurses are, then, most dangerous and should be carefully shunned.

The fact that cords can avulse rather easily, and rarely cause haemorrhage if they do, is certainly not reflected here, possibly because of an experience suffered by the practitioner, a lack of knowledge, or as a method of limiting the nurse’s role. An element of the anti-midwife medical campaign that was particularly effective in America may be detected in the emotive words used.⁵⁴⁶ The message that medical supervision and advice is needed is present throughout the book.

The Regulation of Midwifery

New Zealand midwifery became a regulated profession with the passing of the Midwives Act 1904. The Act established midwifery training schools, the registration of midwives, and a state midwifery service.⁵⁴⁷ The training schools for midwives, the St Helens Hospitals, also provided a maternity service for the respectable wives of working men, both within the hospital and at home in the community. The Act gave medicine control of midwifery, a hitherto autonomous profession, by placing District Officers of Health in a supervisory capacity.⁵⁴⁸ The registered midwives that St

⁵⁴⁵ M. Allen, A. McGregor, *The Woman Beautiful*, p. 177.

⁵⁴⁶ For further discussion, see: A. Oakley, *Women Confined*.

⁵⁴⁷ For further discussion on these issues, see: M. Cooper, *Towards the professionalisation of New Zealand midwifery 1840 – 1921*, M. Phil Thesis, Massey University, Palmerston North, 1998.

⁵⁴⁸ For more discussion on this, see: E. Papps, M. Olssen, *Doctoring Childbirth*.

Helens produced were very different from the traditional midwives who were accustomed to working autonomously. The influence of medicine upon them was so noticeable that it was remarked on by Hester McLean, Assistant-Inspector for the Health Department, in 1917 when she wrote in her report:

Trained midwives have not acted as midwives, merely as maternity nurses working under doctors. One result of this is reluctance on the part of many to take the responsibility of acting without a doctor, and feel that by so doing they would alienate the medical profession, which so far strongly discourages women from working independently.⁵⁴⁹

Obstetric practice in the Early 1900s

The word 'midwifery' was replaced with the word 'obstetrics' during the twentieth century, but there were still medical textbooks being produced that were labelled 'midwifery' in the 1960s.⁵⁵⁰ From now, this study will use the term 'obstetric' where appropriate, for ease of clarification.

There were variable obstetric approaches to 'delivering' the placenta at this time. Crede's and the Dublin manoeuvres were popular, despite being associated with uterine inversion, as was manual removal of the placenta despite its link to puerperal sepsis. Although it was known that uterine massage prior to the separation of the placenta could cause hourglass contraction and PPH, there were still some authorities who recommended it.⁵⁵¹ Cord traction was totally out of favour, with most texts warning of the risk of cord avulsion and uterine inversion. Watson exemplifies the new awareness of the risk of sepsis, instructing the midwife that she must never introduce her hand into the vagina, and certainly not into the uterus unless "in cases of haemorrhage of the greatest emergency when it would be criminal to await the doctor's arrival before trying to stop the bleeding."⁵⁵²

Watson suggested expression of the placenta from the vagina using pressure "downwards and backwards" on the contracted uterus to expel it, and fundal massage for at least a quarter of an

⁵⁴⁹ *Appendices to the House of Representatives (AJHR.)*, Vol. 1, H. 31, 1918.

⁵⁵⁰ An example is: F. Roques, J. Beattie, J. Wrigley, Eds., *Midwifery: Ten Teachers*, 10th Ed., Edward Arnold, London, 1963.

⁵⁵¹ An example is: J. Watson, *A Complete Handbook of Midwifery*.

⁵⁵² J. Watson, *A Complete Handbook of Midwifery*, p. 163.

hour following the expulsion of the placenta, stating that there was no reason to give ergot as a routine practice, which would hint that some of his contemporaries were using it postpartum as a routine. He contended that there should always be a reason to use it, and described using liquid ergot by mouth for a uterus that kept relaxing. The baby was to be put to the breast if there was heavy bleeding although the rationale behind this was not discussed.⁵⁵³

Milford wrote in his Australian Handbook:

The expulsion of the placenta varies much in relation to time. If the uterus be vigorous, it will be soon expelled, but if the patient be weak or exhausted, the result of a long lingering or instrumental labour, it may be retained for a considerable period. In some instances it may be necessary to introduce your hand to remove it.⁵⁵⁴

Milford quoted two authorities as recommending a wait of fifteen to twenty minutes prior to intervention,⁵⁵⁵ and then described action perhaps more akin to the Dublin method than to Crede's as it does not involve 'squeezing' the uterus. The midwife is instructed to sit by the bed with her hand on the fundus of the uterus "to secure contraction and prevent distension, but not handling or forcibly compressing it." Only after the uterus contracts is the uterus to be grasped in the "hollow of the hand" and "strong and firm pressure should be made downwards and backwards in the axis of the pelvic brim."

The diagram accompanying the text shows the woman lying horizontal in the left lateral position.⁵⁵⁶ The midwife or nurse's role was made clear; to hold the woman's leg up, and to assist the doctor, who exhibited a degree of sympathy for his assistant after the birth of the baby:

You should now quietly put down the leg you have been supporting and gently remove the infant a few inches from the mother, when it will probably cry. You will have become by this time rather stiff in your legs and arms: you should get off the bed and go in search of the ligatures for the cord. These you will hand to the surgeon.⁵⁵⁷

⁵⁵³ J. Watson, *A Complete Handbook of Midwifery*, pp. 255 – 261.

⁵⁵⁴ F. Milford, *The Australian Midwife's and Nurse's Handbook*.

⁵⁵⁵ Playfair and McClintock,

⁵⁵⁶ F. Milford, *The Australian Midwife's and Nurse's Handbook*, p. 72.

⁵⁵⁷ F. Milford, *The Australian Midwife's and Nurse's Handbook*, p. 80.

Milford discussed the tying of the cord, commenting that if the child was not breathing he would not ligate the cord if it was still beating as “it would probably cause a fatal termination.” The baby, the nurse was instructed, should be taught to suck on the breast on about the third day, or earlier, four hourly, if the milk ‘comes in’. Although he stated that the baby did not require feeding in the first thirty-six hours, the usefulness of the baby suckling to help control haemorrhage was recognised:

It [the baby] requires no food for the first thirty-six hours, but may be put to the breast as soon as washed and dressed shortly after birth, for the purpose of causing a reflex stimulus to the uterus, and to keep it in its contracted state if there be any tendency to relaxation and haemorrhage.⁵⁵⁸

This is the first written comment found during this research where the use of infant suckling is noted as a method of causing uterine contraction.

‘Holding’ – not ‘kneading’

Haultain followed the precedent of other writers by following the uterine fundus down with the left hand during the birth of the baby with the intention of recognising if there was a twin, and to prevent haemorrhage by preventing uterine distension. This was continued following the birth of the child as he instructed the attendant to “hold” the uterus, while he attended to the child. He did not ligate the umbilical cord until pulsation ceased.⁵⁵⁹

Munro Kerr, whose textbooks were very influential, illustrated manual removal of the placenta. If the placenta had not been expelled within half an hour of the birth he considered it to be “abnormal” and would remove the placenta manually, yet he began the chapter by pointing out that true adherent placenta was very rare and the operation of manual removal was only “necessary about once in 200 cases.”⁵⁶⁰ He considered it advisable following manual removal (using aseptic methods) to give a hot water intra-uterine douche to wash away debris and stimulate uterine contraction, especially if anaesthesia had been used, and to give an injection of ergotine, an injectable alkaloid of ergot.

⁵⁵⁸ F. Milford, *The Australian Midwife’s and Nurse’s Handbook*, p. 90.

⁵⁵⁹ F. Haultain, *A Practical Handbook of Midwifery*, The Scientific Press, London, 1902.

⁵⁶⁰ J. Munro Kerr, *Operative Midwifery*, p. 507.

Munro Kerr noted that normally the uterus rests after the birth for ten to fifteen minutes, and criticised the practice of early kneading of the uterus commenting:

To put a time limit on what should be the duration of the third stage is quite impossible, for, like any other stage, it must vary in duration. [...] the other extreme of forcing the placenta out immediately after the child is born is a highly reprehensible practice [...] The intelligent and careful accoucheur knows that he should keep his hand on the uterus during the third stage; but the mistake he makes is, instead of allowing his hand to lie quietly on the uterus and watch that it does not become over-distended with blood, he begins to knead it immediately, with the result that he sets up a tetanic contraction of the uterus, especially the lower part of the body; he forgets the fact that the uterus must have a period of rest before it begins to contract.⁵⁶¹

He also contended that the early kneading and compression of the uterus “destroys the quiet formation of the retro-placental haematoma” which he considered a necessary physiological factor in normal placental detachment and expulsion.

In the Field

Articles that yield information about the birth of the placenta from 1900 to 1910 included the Annual Reports of the Dunedin St Helens written by the Medical Superintendent, Dr Emily Seideberg, and a discussion of third stage management by Dr Purdy,⁵⁶² in the 1906 and 1908 *New Zealand Medical Journals* respectively.

Seideberg discussed the care of 160 ‘indoor’, and 21 ‘outdoor’ women between September, 1905 and September, 1906.⁵⁶³ ‘Indoor’ women gave birth at the hospital, ‘outdoor’ were women birthing out of hospital, usually at home.⁵⁶⁴ Out of the 160 cases there are more abnormal labours than one would expect. This may be from the lack of antenatal care at the time but it could be speculated that women, if there were known abnormalities, came to the hospital to birth. This is supported by some of the women having been sent to St Helens by their doctors because of their poor obstetric histories. Often these histories were to do with maternal health, as much as obstetric issues. Seideberg’s Reports of the Dunedin St Helens Hospital analysing the outcomes of

⁵⁶¹ J. Munro Kerr, *Operative Midwifery*, p. 510.

⁵⁶² J. Purdy, Third Stage of Labour, *New Zealand Medical Journal*, Vol. VII., November, 1908.

⁵⁶³ E. Seideberg, Annual Report of St Helens Hospital, Dunedin, *New Zealand Medical Journal*, Vol V., No. 20, October 1906, pp. 60 – 62.

⁵⁶⁴ This is based on the use of the name ‘Outdoor Casebook’ for the records of women who birthed at home.

a less than healthy population, were published again in 1910,⁵⁶⁵ 1911, and 1913.⁵⁶⁶ These showed low PPH rates, however, we cannot compare them to today's rates as what then was considered to constitute a PPH was not defined.

Purdy wrote that he had believed that the invasive manual removal was a safer choice than Crede's manoeuvre and had used it routinely. However, he had decided to try a method promoted by a Dr. Durlacher of "not touching the abdomen at all until after the placenta had left the uterus." Purdy related that he had since attended sixty-six cases using this method, only needing to manually remove the placenta four times. He had waited an average time of ten minutes for the placenta; the longest wait was forty-seven minutes. He strongly recommended the use of the method.⁵⁶⁷

Textbook Practice

Operative Obstetrics, by Edward Davis, a Professor of Obstetrics in America contended that "traction upon the wall of the uterus near the fundus" was the commonest cause of uterine inversion, blaming cord traction but also implicating the improper application of Crede's manoeuvre as a recent causative factor, commenting that:

If the obstetrician depresses or dimples the fundus of the uterus, and continues to press downward upon the fundus inversion may often result.⁵⁶⁸

Berkeley and Bonney recommended the practice of "manual control of the uterus"⁵⁶⁹ explaining the holding and kneading of the uterus followed by uterine expulsion or expression that was described in the previous decade by Kerr and by Haultain. However, they also recommended the use of hypodermic injection of ergotine and, further, used it routinely and prophylactically, given

⁵⁶⁵ E. Seideberg, Report of St Helens Hospital, Dunedin, March 30th 1909 – to March 30th 1910. *New Zealand Medical Journal*, Vol VIII., August, 1910, pp. 45 – 49.

⁵⁶⁶ E. Seideberg, Report of St Helens Hospital, Dunedin, March 30th 1912 – to March 30th 1913. *New Zealand Medical Journal*, Vol XII., 1913.

⁵⁶⁷ J. Purdy, *Third Stage of Labour*, p. 48.

⁵⁶⁸ E. Davis, *Operative Obstetrics*, p. 359.

⁵⁶⁹ C. Berkeley, V. Bonney, *The Difficulties and Emergencies*.

when the “expression of the placenta or its manual removal is in immediate anticipation.”⁵⁷⁰ In a normal labour if there was a “history of PPH at the previous labour, ergot may be given just as the head is being ‘crowned’.”⁵⁷¹ This is the first mention of the prophylactic use of a uterotonic given in the second stage of labour found in this study.

The third edition of Tweedy and Wrench’s ‘Practical Obstetrics’ was published in London in 1914. Tweedy had been Master of the Rotunda in Dublin for seven years.⁵⁷² He stated that the book was a record of experience of over 30,000 “cases” for which he was personally responsible.⁵⁷³ As in other texts the woman was turned from her side onto her back for the third stage. The reasons given were “that it is the most convenient position for the obstetrician for he can control the uterus better when the woman is lying on her back” and that it “prevents air being aspirated into the uterus,” or “saphrocytes”.⁵⁷⁴ It is further noted that “There is no real proof that either happens, but at any rate they are avoided by the position on the back.”⁵⁷⁵

Tweedy cited experiments that showed that if the umbilical cord was cut immediately the baby was deprived of about three ounces of blood [90ml], therefore he did not cut the cord until pulsation ceased. The Rotunda’s teaching was to keep the hands in light contact with the uterus but not to massage or rub it at all, with just enough contact so that the attendant could feel contractions and retraction occurring and recognise if the uterus was becoming flabby and filling with blood.⁵⁷⁶ This technique remained the norm, and was still in use in the 1940s and 1950s until the more aggressive ‘active management of the 1960s replaced it, although some midwives, afraid

⁵⁷⁰ C. Berkeley, *The Difficulties and Emergencies*, p. 265.

⁵⁷¹ C. Berkeley, *The Difficulties and Emergencies*, p. 265; presumably the “ergot” is the ergotine injection which is an alkaloid of ergot.

⁵⁷² For further information, see: O. Browne, *The Rotunda Hospital 1745- 1945*, E & S Livingstone, Edinburgh, 1947.

⁵⁷³ E. Tweedy, G. Wrench, *Practical Obstetrics*, p. vi.

⁵⁷⁴ ‘Saphrocytes’ were thought to be disease bearing particles in the air before infection was properly understood.

⁵⁷⁵ E. Tweedy, G. Wrench, *Practical Obstetrics*, p. 60.

⁵⁷⁶ He also mentions the woman’s pulse quickening as a symptom of bleeding.

of uterine inversion, continued its use.⁵⁷⁷ The uterus expels the placenta into the vagina and Tweedy noted that “owing to the patient lying down the placenta will stay in the vagina for a long time.” It obviously did not occur to him that the woman could change position. Tweedy did not use ergot routinely. After the mother and baby were attended to, the nurse was to put the baby to the breast for a few minutes, “This trains the baby to the nipple, stimulates the milk flow, and helps the contraction of the uterus.”⁵⁷⁸

Tweedy implicated the anaesthetic chloroform in prolonging the expulsion of the placenta, and aligned with previous writers by warning that rubbing and squeezing the uterus before the placenta has been expelled was “directly harmful;” it could “squeeze out the retro-placental haematoma which is separating the placenta from the uterine wall [and] it is a cause of irregular contraction of the uterus which does not separate and expel the placenta as do the contractions of the uterus when it is left to itself.”⁵⁷⁹

He gave three reasons for retention of the placenta. Chloroform causing uterine inertia, early squeezing of the uterus, and irregular uterine contraction through injudicious uterine kneading, administration of ergot, or a full bladder or other ‘unknown cause’. He mentioned that hourglass contraction was one cause, for which the best treatment was “removal of the controlling hand” and an injection of morphine to relax the uterus.

The 1914 April *New Zealand Medical Journal* reported the presidential address of Sir David Hardie.⁵⁸⁰ The long address discussed the ongoing discoveries in reproductive hormones including the hormones produced by the pituitary gland speculating about their potential.⁵⁸¹ Hardie also questioned why aseptic and antiseptic techniques were not reducing maternal mortality from puerperal sepsis. He discussed the use of rubber gloves, remarking that not all practitioners were

⁵⁷⁷ For examples: ‘Lilian’, Oral History Audiotape, 2009; B. McHugo, Oral History Audiotape, 2009.

⁵⁷⁸ E. Tweedy, G. Wrench, *Practical Obstetrics*, p. 75.

⁵⁷⁹ E. Tweedy, G. Wrench, *Practical Obstetrics*, p. 301.

⁵⁸⁰ D. Hardie, Section of Obstetrics and Gynaecology, Presidential Address, *New Zealand Medical Journal*, Vol XIII, April 1914, pp. 65 – 81.

⁵⁸¹ D. Hardie, Section of Obstetrics and Gynaecology, Presidential Address, p. 71.

comfortable using them. He reminded his audience that using the Dublin method of expressing the placenta had reduced sepsis, but illustrated the gulf between midwifery and medicine when he asserted that sepsis cases in hospital had reduced because:

the hospital patient is cared for by *trained nurses* who appreciate the value of asepticism. The private woman, on the other hand, is often nursed by a *midwife* whose arrogance is only equalled by her ignorance. The only redeeming feature about the midwife is that she cannot hasten the delivery of the child. She can, however, and often does, commit the greater crime of hastening the delivery of the placenta, and this, combined with her usually filthy habits, make her attendance on women a positive danger. So long as the midwife exists we cannot hope to prevent infection in patients delivered in their own homes.⁵⁸²

Hardie also commended the cleanliness of hospital, as opposed to home, and continuing with anti-midwife rhetoric, recommended patience on the part of the medical attendant for the birth of the placenta, contending that:

First of all, the midwife must go and give place to the qualified nurse [...] and the medical attendant must not hurry over the second and third stage of labour. We reply that we cannot afford the time. If by that we mean that we are too busy otherwise, then we have no right to take charge of the case.⁵⁸³

Clinical Records

The Wellington St Helens Hospital 'Outdoor Casebook' for the period between October 1913 and January 1918⁵⁸⁴ yielded clinical records for a series of 487 homebirths attended by midwives and student midwives from the St Helens Hospital. Doctors also attended 292 (fifty-nine percent) of the women. There are no records of the birth of the placenta or of its management unless there has been an unusual intervention. There is no record of how long the first, second or third stages of labour took and there is no record of estimated blood loss. Interesting comments such as "slight PPH" or "sharp PPH", and sometimes "collapse" are used, and the treatment is recorded. Each page holds the record, not only of the birth, but also of the postnatal visits the "nurse" carried out.⁵⁸⁵ A table of the complications of placental birth suffered by these women are included as Appendix V.

⁵⁸² D. Hardie, Section of Obstetrics and Gynaecology, Presidential Address, p.74.

⁵⁸³ D. Hardie, Section of Obstetrics and Gynaecology, Presidential Address, p.75.

⁵⁸⁴ St Helens Hospital 'Outdoors Casebook' records 606 – 1095, 1913 – 1918.

⁵⁸⁵ Both the midwives and their students are referred to throughout as 'Nurse' or 'Sister'.

The women cared for by St Helens were the wives of working men. They paid for their care, both in hospital and at home. There was little in the way of antenatal care at that time. This series of women presented with a variety of problems that included anaemia, pneumonia, measles, gonorrhoeal endometritis, deformed pelvis, stillbirths, placenta praevia, prematurity, pre-eclampsia, breech presentations and twins. Like Seideberg's, this was not a healthy population.

Only twenty-four women out of the 487 (4.9 percent) were recorded as suffering complications with the birth of the placenta. Eleven had complications that would be likely to require manual removal of the placenta or membranes but only six actually record that, and only six cases of PPH are actually documented, giving a manual removal rate of 1.23 percent and a questionable PPH rate of 1.23 percent. It is not known what criteria were used to define a PPH at that time although Tweedy had used the definition that was still in use in the 1960s. A table of the complications of placental birth from the St Helens Outdoors Casebook is attached as Appendix V.

Case records from the St Helens Hospital, Wellington, 1921 Indoor Casebook allowed more writing space than the 'Outdoor'; two pages for each woman, and recorded the length of the "third stage of labour", noting the times when the baby was born and the placenta expelled.⁵⁸⁶ There was still no information contained in the records about the amount of blood loss although the records did request a description and the weight of the placenta. As the decades passed, the records contained much more detail about the management of the third stage of labour.

Hospitalisation, Sepsis and Painless Childbirth

In 1920 only four percent of women were having their babies in St Helens hospitals.⁵⁸⁷ Sixty-five percent of New Zealand mothers had their babies in small unlicensed one-bed 'maternity homes' or in their own home. But by 1927 fifty-eight percent of New Zealand births took place in maternity hospitals.⁵⁸⁸

⁵⁸⁶ An example is Birth record of Mrs Ada Esther Gribble, *Indoor Casebook*, St Helens Hospital, 28th September, 1921. Stojanovic Family Archive, Wellington, 1921.

⁵⁸⁷ P. Mein Smith, *Maternity in Dispute New Zealand 1920 – 1939*, Historical Publications Branch, Department of Internal Affairs, Wellington, 1986, p.1.

⁵⁸⁸ J. Donley, *save the Midwife*, p.39.

The idea of hospital as the preferred option for birth and postnatal care was ‘sold’ to women with the idea that doctors and hospitals could provide a safer, pain-free birth. Medical preference for birth in hospital benefited from the introduction of strict asepsis and twilight sleep in the 1920s and 1930s allowing the medical profession to advertise its ability to provide ‘painless childbirth’. Doctors advised women to birth in hospital for ‘safety’ reasons.⁵⁸⁹

The increased incidence of puerperal sepsis became a publicly controversial political issue in the 1920s. The doctors blamed the increase in puerperal fever on midwives although the increase was linked to medicine’s use of more interventionist techniques. A 1921 Board of Health Special Committee had already noted the link between puerperal sepsis and instrumental deliveries and recommended informing the doctors and the public that “Childbirth is a normal physiological process, and to the healthy woman in healthy surroundings is attended with very small risk.”⁵⁹⁰

In 1922, a report by the New Zealand Branch of the British Medical Association (BMA) on maternal mortality,⁵⁹¹ caused consternation and dissent among the medical community.

There is no doubt as to contributing causes; for instance, lack of antenatal hygiene and treatment, excessive vaginal manipulations, careless asepsis and antisepsis, and unfavourable surroundings⁵⁹²

The Department of Health monitoring of maternal mortality showed that a doctor’s presence was more dangerous to the woman than that of a midwife.⁵⁹³

Henry Jellett, who had come from the Dublin Rotunda⁵⁹⁴ to work in Aotearoa New Zealand with twenty-five years of practice behind him, outlined a number of major topics of concern, including the ‘excessive’ maternal mortality, emphasising the high number of assisted births and that

⁵⁸⁹ For further discussion on these issues, see: M. Olssen, E. Papps, *Doctoring Childbirth*; J. Donley, *Save the Midwife*; M. Doddy, *The Trouble with Women*; C. Manson and C. Manson, *Doctor Agnes Bennett*; D. Gordon, *Backblocks Baby Doctor*, Faber & Faber, London, 1955; D. Gordon, *Doctor Down Under*, Faber & Faber, London, 1957.

⁵⁹⁰ Special Committee on Maternal Mortality in NZ, *AJHR*, 1921, H-31 B, p.4; P. Mein Smith, *Maternity in Dispute*, p.23.

⁵⁹¹ Report of the Sub-Committee of the BMA , pp. 57 – 58.

⁵⁹² Report of the Sub-Committee of the BMA., p. 58.

⁵⁹³ More evidence to support the contention that midwives had better outcomes than doctors are to be found in: P. Mein Smith, *Maternity in Dispute*; V. De Brouwere, *The Comparative Study of Maternal Mortality over Time*; the Australian experience also supports this, see: K. Fahy, *An Australian history of the subordination of midwifery*.

The percentage of cases in which there is interference with the physiological mechanism of third stage is also very high.⁵⁹⁵

Jellett continued his discussion of why the figures for Aotearoa New Zealand were so high in four main areas, which he compared to the figures from the Rotunda Hospital. The Aotearoa New Zealand maternal mortality rate for PPH was 1 in 1061 births. The Rotunda figure for PPH was hugely different to that in Aotearoa New Zealand: 1 in 7397.⁵⁹⁶ Jellett quoted William Smyly, who in 1890 “had pointed out that a practitioner could best estimate the success of the manner in which he conducted normal labours by the frequency or infrequency of postpartum haemorrhage in his practice.” adding:

If we apply this principle to the figures before us, the result is not satisfactory, and strongly points to the excessive frequency of instrumental deliveries and hurried third stages, because where the death rate from a condition such as postpartum haemorrhage is so very high, the frequency of the condition must be correspondingly high.

Labour is a physiological process, under normal conditions, until we interfere with its course. Such interference turns it into a pathological process, where complications of all kinds jostle one another for predominance.⁵⁹⁷

Jellett suggested that doctors needed to make good diagnoses to exclude complications, “be available if any complication developed, if possible at the actual birth, but at any rate during the third stage.”⁵⁹⁸ He finished his paper with the words:

Labour, under normal conditions is a physiological process; we cannot interfere with it without making it a pathological process, and introducing complications whose possibilities for harm are infinite therefore the wise and skilful obstetrician avoids interference.⁵⁹⁹

‘Campaign for Safe Motherhood’

In 1923, in a respectable private maternity home in Auckland, Kelvin Hospital, there were six cases of puerperal sepsis. Five of the women died. The Department, following an enquiry, introduced the

⁵⁹⁴ For further information, see: O. Browne, *The Rotunda Hospital 1745- 1945*, E & S Livingstone, Edinburgh, 1947.

⁵⁹⁵ H. Jellett, *Maternal Mortality*, p. 36.

⁵⁹⁶ H. Jellett, *Maternal Mortality*, p. 37.

⁵⁹⁷ H. Jellett, *Maternal Mortality*, pp. 37, 38.

⁵⁹⁸ H. Jellett, *Maternal Mortality*, p. 42.

⁵⁹⁹ H. Jellett, *Maternal Mortality*, p. 45.

'Campaign for Safe Motherhood' in 1924. This campaign did not mention the instrumental delivery rate, and was directed toward antenatal care, asepsis, hospital policy and midwifery training. In 1924 a letter to the editor of the *New Zealand Medical Journal* contained an entertaining account of a night interrupted by calls from a concerned nurse⁶⁰⁰ about the progress of the woman being attended. The letter illustrated, although somewhat tongue in cheek, the human face of a situation that was probably not uncommon, and the influence of the Department of Health's teachings on patience in midwifery practice, including third stage, on at least one rural doctor. It also highlights the anxiety that delay in the birth of the placenta could elicit from the birth attendant who, it is noted, is referred to as a nurse, who is fifteen miles of bad road away from the doctor.

"Can't get the placenta away; it is now two hours since baby was born." "Try a little compression, Nurse," I yawned, "and remember that 'Nature will help'."

And an hour or so later:

I was startled into consciousness by a terrific ringing in my ear. The hour was 5am and colder and more uninviting than ever. "Can't get it away," sobbed the voice "all my efforts are futile; you will have to come down."

And finally:

"Got it away all right, doctor, everything splendid." I heaved a prayer heavenward for those Palmerston North speakers and their excellent advice: Leave things to nature," as I joyously made a bee-line for the blankets and rest.⁶⁰¹

In late 1926 another article on maternal mortality by Henry Jellett was published,⁶⁰² this time dealing specifically with PPH. Interference prior to the placenta being expelled from the uterus, according to Jellett led to "premature or incomplete detachment", a direct cause of PPH. He stated that vaginal examination to assess the placenta detachment is "not permissible"

⁶⁰⁰ This could have been a registered midwife, or a registered nurse. It is necessary also to note that lay midwifery was continued, almost invisibly, in the background at least until 1921, and anecdotally for some decades after that, particularly in remote rural areas.

⁶⁰¹ H. Dawson, The Trials of Midwifery Practice, Correspondence, *New Zealand Medical Journal*, Vol. XXIII, 1924, pp. 428 – 429.

⁶⁰² H. Jellett, Some Common Causes of Maternal Mortality, *New Zealand Medical Journal*, Vol. XXV, 1926, pp. 312 – 316; For discussion of clinical treatment of PPH, see: Wylie, D., Maternal Mortality, *New Zealand Medical Journal*, Vol. XXI, April, 1922, pp. 45 – 51.

presumably because of the risk of sepsis, and stated that “inasmuch as it is impractical to wait indefinitely, it is necessary to fix a time limit.” He suggested an hour in the absence of clinical reasons why the time should be shortened (such as infection, weakness etc.). Following which he recommended that fundal expression should be tried, and felt that the wait could be even longer before using the risky procedure of manual removal.⁶⁰³ Jellett further suggested resting the hand lightly on the fundus to enable recognition of uterine distension, commenting that a full bladder or uterine distension may cause PPH.⁶⁰⁴ The idea of an hour in which to expel the placenta keeps occurring in the texts purely as an arbitrary time, convenient for the attendant.

Pituitrin as a postpartum prophylactic

In 1929 Jellett, amongst other information, provided provisional maternal mortality figures for 1928. There were seven deaths from PPH. In the same journal a Dr. L. Forman Bull had a paper published on ‘The Use of Pituitary Extract in Obstetrical Practice’. His article was based on a presentation by Dr. Blair Bell of Liverpool. Pituitary extract for clinical use had been introduced by him in 1909 under the name ‘Infundibulin’. The article explained the use of pituitary extract and explained that it could be dangerous if given indiscriminately, especially in labour, and that the doses being given were too large. He explains the parameters of its use in the third stage of labour:

In the third stage of labour the extract must not be administered before the birth of the placenta, as should it be necessary to deliver a morbidly adherent placenta, it may be found impossible to introduce the hand into the uterus. It is valuable if administered after the birth of the placenta when retraction is deficient, and its efficiency is enhanced by the simultaneous injection of an ergot preparation. The extract is often employed as a routine at this stage, as a prophylactic against postpartum haemorrhage.⁶⁰⁵

The idea of uterotonic drugs being used as a prophylactic treatment for PPH was increasing in popularity.

⁶⁰³ H. Jellett, Some Common causes of Maternal Mortality.

⁶⁰⁴ H. Jellett, Some Common causes of Maternal Mortality.

⁶⁰⁵ L. Forman Bull, The Use of Pituitary Extract in Obstetric Practice, *New Zealand Medical Journal*, Vol.XXVIII, 1929, pp. 106 – 107.

The Obstetrical Society

The Health Department generally supported midwifery with its lower rates of intervention, despite the introduction of Paget's measures against puerperal sepsis. The Department criticised doctors for 'meddlesome midwifery'; doctors felt threatened and undervalued.⁶⁰⁶ Dr. Doris Gordon was a key player in the establishment of both the Obstetrical Society and later, the Chair of Obstetrics at Otago University. She believed that to maintain control of maternity the doctors needed to change the public perception of birth. Mein Smith pointed out that

Because health officials insisted that childbirth was a normal healthy process, she [Dr. Gordon] believed that a fledgling Obstetric Society needed to educate the public to accept the alternative view that maternity was 'highly dangerous'.⁶⁰⁷

In 1926 Gordon compared New Zealand obstetrics to that she had seen in Holland, Austria and Britain. She refuted the suggestion that the statistics used in the Maternal Mortality Report of 1922 were comparable, citing examples of how differently they were collected and treated in the various countries.⁶⁰⁸ She called upon doctors practising midwifery to join together to form a society that could keep accurate statistics and made a prophetic statement that signalled her intentions.

So long as we broadcast the idea that it [childbirth] is a simple natural process, so long will the public evade ante-natal attendances and criticize the doctor who asks for assistance in difficult cases. Rather we should disperse the knowledge that, what was once a normal physiological process has in the onward march of human development been converted into a process that is abnormal and pathological, that even the so-called normal case of today is fraught with pain and penalty, that birth and death go hand in hand, and that the least deviation from the normal mechanism calls for the presence of a second doctor so that proper anaesthesia and asepsis can be maintained.⁶⁰⁹

The Obstetrical Society was established in 1927 and became a powerful lobby group. Although hospitalisation and 'painless childbirth' induced iatrogenic problems, the Obstetrical Society

⁶⁰⁶ For more information on these issues, see; D. Gordon, *Doctor Down Under*; P. Mein Smith, *Maternity in Dispute*; E. Papps and M. Olssen, *Doctoring Childbirth*.

⁶⁰⁷ P. Mein Smith, *Maternity in Dispute*, p. 43.

⁶⁰⁸ D. Gordon, *Comparative Obstetrics*, *New Zealand Medical Journal*, Vol. XXV, 1926, pp. 65 – 80.

⁶⁰⁹ D. Gordon, *Comparative Obstetrics*, p. 79.

lobbied so effectively that hospitalisation came to be seen by the public as the safest option for birth, and doctors became the 'gatekeepers' for maternity care.⁶¹⁰

The woman's dirty body

Hospital birth required asepsis to prevent cross infection for mothers and for babies. There was, in the 1930s, some recognition that uterine contractions were affected by the woman's emotions, but the prevention of sepsis in labour was the paramount concern. The accoucheur was warned against digital examination of the "genital canal" except if absolutely necessary. Vaginal douches were also seen as a source of infection and were no longer used as a treatment for heavy bleeding. "The genital tract in labour should be regarded as the operation region, an area not to be contaminated".⁶¹¹ At the beginning of labour the woman's body was prepared by having the hair from the genital region clipped or shaved, a bath, and an enema to empty the bowel. The woman's body was perceived as a dirty source of infection and draped and 'sterilised' as much as possible for the birth. This further reduced the possibility for women to be mobile in labour.⁶¹²

A New Zealand Midwifery Textbook

An article by the Wellington obstetrician T.F. Corkill in 1930 defended the need for general practitioners to have the ability to care for normal as well as abnormal labours. He presented the third stage of labour as a most dangerous time that certainly warranted the presence of a medical practitioner.⁶¹³ An influential obstetrician at Wellington Hospital, lecturer of student nurses and an examiner for the Midwives Registration Board, Corkill used his teaching notes to write a textbook for Nurses and Midwives. The 1932 first edition⁶¹⁴ has a useful section on the drugs used in midwifery, mentioning only two ecbolics – pituitary extract, and preparations of ergot.

⁶¹⁰ For further discussion, see: J. Stojanovic, *Midwifery in New Zealand*; E. Papps, M. Olssen, *Doctoring Childbirth*, p. 120.

⁶¹¹ T. Davies, *The Queen Charlotte's Text-book*, 1939, p. 263.

⁶¹² T. Davies, *The Queen Charlotte's Text-book*, p. 261; For details of maternity practices, see, J. Stojanovic, *Leaving your dignity at the door*, 2002; A. Wassner, *Labour of Love*; *Childbirth at Dunedin Hospital, 1862 – 1972*, author, Wycliffe Press, Dunedin, 1999.

⁶¹³ T. Corkill, *The Trend of Obstetric Practice in New Zealand*, p. 43.

⁶¹⁴ T. Corkill, *Lectures on Midwifery and Infant Care*, Coulls Somerville Wilkie Ltd, Wellington, 1932, p.132.

Corkill exemplified the movement toward the prophylactic use of ecbolics by recommending the use of a small dose (2 -3 IU) of pituitary extract “at the commencement of third stage [...] in any case where feeble action either from uterine inertia or exhaustion is feared.”⁶¹⁵ Ergot could be given in the form liquid ergot, ergotin tablets for oral or subcutaneous use, or as ampoules of “aseptic ergot” or Ernutin.” Corkill mentioned the use of ergot to supplement pituitary extract to prevent PPH, sometimes given routinely after “delivery” and sometimes “being continued in small doses two or three times a day for the first few days of the puerperium.”⁶¹⁶ The need to keep the room warm to prevent chilling the mother during the birth was emphasised. Corkill’s management was the same as others and he stated that many doctors were using ergot or pituitary extract routinely after third stage, which he considered to be a safe practice. Corkill did not ligate the umbilical cord until pulsations ceased, five to ten minutes after the birth.⁶¹⁷ The baby was placed in a warm cot, and was “put to the breast” 3 – 4 hours after the birth normally, but twelve hours after a difficult labour and birth.⁶¹⁸ Corkill reiterated that patience was very important throughout third stage and recommended Crede’s manoeuvre if signs of separation were not present after an hour. Manual removal was then recommended as a last resort. Corkill’s two strong emphases were warmth and patience.

While many doctors intervened in birth there were those who did not. A relaxed and patient attitude to the birth of the placenta was described by G. Smith, a well-known doctor who worked in the Hokianga in the 1940s, in the remote North of New Zealand. He instructed the birth attendant:

Give her a cup of tea and take one yourself [...] Don’t bother about the afterbirth, it will come itself, quite soon or maybe will drop into the pot when she wants to empty her bladder later on, there is no hurry.⁶¹⁹

⁶¹⁵ T. Corkill, *Lectures on Midwifery*, 1932, p.122.

⁶¹⁶ T. Corkill, *Lectures on Midwifery*, 1932, p.122.

⁶¹⁷ T. Corkill, *Lectures on Midwifery*, 1932, pp.136, 137.

⁶¹⁸ This was intended to rest the baby; T. Corkill, *Lectures on Midwifery*, 1932, p. 167.

⁶¹⁹ G. Smith, *Medical Advice from a Backblock Hospital*, Progressive Publishing Societ, Wellington, 1943, p.86.

His advice seems to be at odds with the practice of others, but he was a man who in many respects was a nonconformist. He may have absorbed the 'leave it to nature' teachings of the Health Department.

Summary

In the early years of the twentieth century a 'cause and effect' cycle of three synergistic and catalytic factors, medicalisation, hospitalisation and nursification produced clinical and political changes that created a weave into which changes to the management of the birth of the placenta could be woven. These three factors were to gain strength over the next decades but they were well established by 1930.

The first half of the twentieth century was characterised by the growing influence of the medical profession over birth. The Midwives Act 1904 placed midwifery, and thus maternity, under the control of the medical profession. The intention of that profession to control midwifery and to replace midwives with trained nurses was blatantly overt in medical literature. The medical profession needed to control midwives to control birth, and parallel to that need was their need to control the uterus.

When analysed with the theoretical model it is plain that the third stage practices were not physiologically optimal. The changed birthing environment for women increased the sub-optimal factors for placental birth. Hardy and Jellett both commented on the tendency of practitioners to hurry third stage, another sub-optimal factor. Baby suckling had been recognised as a potential prophylaxis for haemorrhage but drugs such as pituitrin, and ergot and its derivatives were preferred, and were beginning to be used prophylactically. The suboptimal factors including horizontal birth, lack of mother-baby contact, and now the introduction of an unfamiliar environment and a lack of family support, remained unrecognised, becoming accepted as normal as midwives learned obstetric birthing practices.

Cord traction, implicated in an increase in uterine inversion, had given way to manual expression of the placenta which had reduced the incidence of manual removal. Manual removal of the placenta and internal manoeuvres such as vaginal examinations had been recognised as

contributing to the risk of puerperal sepsis. To avoid the internal manoeuvres that would increase the risk of maternal sepsis, expression of the placenta using the Crede's or Dublin methods were adopted. These methods, however, had also become implicated in causing uterine inversion if they were performed before the placenta had separated and if the uterus was not well contracted.⁶²⁰

Massage and kneading of the uterus had been identified as a contributory cause of retained placenta and haemorrhage, and were replaced by the gentle 'holding' of the uterus. The idea was that the hand followed the baby down as it left the mother, maintaining a gentle touch on the mother's abdomen to prevent the uterus distending and to identify the separation of the placenta. Durlacher, and his New Zealand convert, Purdy, however advocated not touching the mother's abdomen or the uterine fundus at all until after the placenta was separated. This would have been a useful step toward optimal birthing if it had been accompanied by undisturbed mother-baby contact.

The majority of writers, including Milford, Munro Kerr, and Tweedy recognised that the uterus rests after the baby's birth, and that time, ten to fifteen minutes, was needed for clotting to become established in the uterine sinuses, prior to any attempt being made to deliver the placenta. This resting phase of the uterus was mentioned in many obstetric texts, and appears to be an important factor in the normal physiological birth of the placenta, particularly after a long, exhausting labour. While later research established that the placenta separates quickly after birth, it may be that expulsive contractions are sometimes delayed, just as they are in some women following full dilation of the cervix,⁶²¹ a phenomenon only relatively recently recognized as a normal physiological occurrence.

Retraction, not just contraction of uterine muscle was also identified as an important component of the physiology of placental parturition, and anaesthesia was recognised as delaying uterine contractions and thus implicated as a predisposing cause for PPH.

⁶²⁰ For examples of uterine inversion, see: G. Shepler, Acute Inversion of the Puerperal Uterus: A Report of Five Cases, *Obstetrics and Gynecology*, Vol. 23, 1964, pp. 598 – 602.

⁶²¹

The uterotonic drugs pituitrin and ergot and its derivatives were being used, routinely in some areas, to maintain uterine contraction after the birth, and to treat PPH. Berkeley, in 1911, had recommended the prophylactic use of uterotonics (ergot) in the second stage of labour, “with the crowning of the head”,⁶²² but most textbooks instructed that uterotonics should not be given prior to the birth of the placenta. The next chapter will outline and analyse the development and establishment of the prophylactic ‘active management’ of the third stage of labour as the sole management of placental birth in New Zealand.

⁶²² C. Berkeley, *The Difficulties and Emergencies*, p. 265.

Chapter Seven: From Masterly Inactivity to Prophylactic Active Management

Introduction

This chapter will trace the development and universal adoption of the prophylactic use of active management of the third stage of labour. By the 1940s the medical profession had become the gatekeepers of the New Zealand Maternity System,⁶²³ and despite some evidence that for normal pregnancy and labour midwifery care was safer, medical practitioners had 'sold' the idea of their profession to New Zealand women as the safest maternity providers, establishing hospital as a place where 'pain-free' birth and safe care were available. The hospitalisation of birth and two important Acts of Parliament changed the position of midwifery in relation to medicine, the Social Security Act 1938 and the Nurses Act 1971.

The discovery of ergometrine in 1932, followed by the manufacture of syntocinon, a synthetic form of oxytocin, gave medicine the tools with which to treat atonic uterus, the commonest cause of postpartum haemorrhage (PPH). Evidence suggests that the inability of practitioners to 'wait for nature' was also a common cause of PPH, so the purposeful shortening of the third stage of labour was seen as an advantage.

Using the theoretical framework to analyse practice, the normal physiology of birth was already compromised by horizontal birthing. The ongoing lack of contact between mother and baby, and in many cases anaesthesia which predisposed to uterine atony, was further compromised when practitioners used drugs to shorten the third stage of labour. The normal dynamics of placental birth were changed when the cord was clamped and cut before the baby had received its natural allotment of blood from the placental system, and the use of uterotonics to stimulate uterine contractions did not allow the uterus the ten to fifteen minutes of rest that usually followed the birth of the baby. Much of the research that underpinned the adoption of 'active management' was neither ethical nor robust by contemporary standards.

⁶²³ J. Stojanovic Maternity During the 2nd World War in Wellington: Expectations and Realities, An Oral History, *Birthspirit Midwifery Journal*, Issue 2, May, 2009, pp. 41 – 46.

The Discovery of Ergometrine

A major international influence on maternity practice was Chassar Moir's discovery in 1932 of the active component of ergot of rye at the University College Hospital, London, which had an enormous impact on the management of the birth of the placenta and the management of postpartum haemorrhage. In the *British Medical Journal*,⁶²⁴ Moir explained that the alkaloid derivatives of ergot, ergotoxine and ergotamine, although uterotonic in action, did not produce the strong uterine contractions that liquid ergot was capable of producing, identifying that "the characteristic and traditional effect of ergot is due to a substance as yet unidentified."⁶²⁵ This substance that produced reliably strong uterine contractions was identified in 1935 and named ergometrine.⁶²⁶ Maternity nurse and midwifery students' records show that liquid extract of ergot was still being used routinely in some hospitals in New Zealand during or following the birth of the placenta in 1935, but by 1939 it was being replaced by the much more effective drug ergometrine, especially in situations of perceived risk of PPH.⁶²⁷

The 1937 Maye's Midwifery textbook still recommended keeping the attendant's hand on the uterine fundus as the child was born, waiting for the pulsation in the cord to cease before tying and cutting the umbilical cord. Mayes expressed contemporary midwifery thinking: "The third stage of labour should be one of masterly inactivity on the part of the midwife."⁶²⁸ The technique of manual removal of the placenta, using aseptic precautions, was taught as a life-saving measure, as was that of bimanual compression of the uterus.

⁶²⁴ C. Moir, The Action of Ergot Preparations on the Puerperal Uterus, *British Medical Journal*, June, 1932, pp. 1119 – 1122.

⁶²⁵ C. Moir, The Action of Ergot Preparations, 1932, p. 1120.

⁶²⁶ Ergometrine was known as ergonovine in the United States of America.

⁶²⁷ Examples include: E. Aitken, Obstetrical Casebook, Whangarei Hospital, Brunton Family Archive, 1935; E. Aitken, Student Maternity Nursing Notes, Maternity Annex, Whangarei, Brunton Family Archive, 1935. C. Radcliffe, Obstetrical Casebook, H.-Mt.15, Rotorua Hospital, Otaki Health Centre Archives, NZ, 1939; Radcliffe, C., Student Midwifery Notes, King George's Hospital, Rotorua, Otaki Health Centre Collection, 1939.

⁶²⁸ M. Mayes, *Handbook for Midwives*, 1937, p. 202.

Maternal Mortality from Postpartum Haemorrhage

The toll of women's lives taken by PPH is demonstrated in the New Zealand Obstetric and Gynaecological Society's 1938 published clinical returns from its members for the years 1936 – 1937. There were 2500 births that included nine maternal deaths.⁶²⁹ Of the 2500 births there were eighteen manual removals of placentae, and twenty-three PPHs, giving an extraordinarily low PPH rate of under 1%. However, as for the St Helens hospital records previously discussed, how PPHs were measured and how they were defined is unknown. As a low PPH rate was associated in medical minds as a measure of clinical expertise there was some incentive (as there was also for midwives) to minimise the rate reported. If the rate, as measured by today's standards, actually was one percent it is much lower than current PPH rates.

The Queen Charlotte Hospital's textbook of 1939⁶³⁰ recognised that uterine contractions "may be inhibited by the emotions,"⁶³¹ nevertheless, the prevention of sepsis in labour was the paramount concern. The accoucheur was warned against digital examination of the "genital canal" except if absolutely necessary: "The genital tract in labour should be regarded as the operation region, an area not to be contaminated".⁶³²

Although it was recommended that the woman was to be upright as much as possible in the first stage of labour and placed in the left lateral position for the birth, in fact, many, if not most, women were sedated during labour.⁶³³ The drugs that were listed for use in labour and birth in the text included syrup of chloral (for first stage sedation if the woman was tired), paraldehyde, barbiturates and 'twilight sleep' using morphine and scopolamine, gas and oxygen (requiring a

⁶²⁹ The New Zealand Obstetric and Gynaecological Society, Clinical Returns for the Years 1936-1937, The New Zealand Obstetric and Gynaecological Society Section, *The New Zealand Medical Journal*, Vol. XXXVII, 1938, pp. 19 – 23.

⁶³⁰ T. Davies, *The Queen Charlotte's Text-book of Obstetrics*.

⁶³¹ T. Davies, *The Queen Charlotte's Text-book*, p. 233.

⁶³² T. Davies, *The Queen Charlotte's Text-book*, p. 263.

⁶³³ An example is in: E. Aitken, *Obstetrical Casebook*, Case X.

skilled anaesthetist), gas and air via the Minnitt's apparatus, and chloroform or ether for anaesthesia.⁶³⁴

The birth of the baby was highly managed by the accoucheur, and it was remarked that "It is not now practice at Queen Charlotte's Hospital to wait for the cord to stop pulsating before separating the infant".⁶³⁵ The delay, it was explained, could result in the baby becoming chilled, and cutting the cord encouraged the baby to establish "its own respiratory efforts".⁶³⁶ Contact between the woman and her baby was still being delayed and breastfeeding was delayed and diminished with the feeding time reduced markedly in comparison to a physiological birth where mother and baby are acting instinctively. The first breastfeed usually took place six to eight hours after the birth, for one minute on each breast. The time was slowly increased "up to ten minutes at regular three hourly intervals during the day, i.e., six feeds with no night feeds".

Davies' management of the birth of the placenta is the same as Mayes', but he details the expression of the placenta; "the uterus is squeezed much as one would squeeze an orange to express the pips".⁶³⁷ He then describes the process of expulsion of the placenta using the hard retracted upper segment of the uterus as a piston to expel the placenta from the lower uterine segment. The attendant was not to leave the woman until an hour had elapsed, the mother's pulse was less than 100 beats per minute, the uterus small and contracting regularly and the mother's blood loss "slight and only sufficient to stain the pad".⁶³⁸

Oxytocic Drugs

An oxytocic was defined in Davies as "a drug that accelerates parturition by virtue of its power to incite or intensify uterine contractions."⁶³⁹ The increasing importance of the uterotonic, now

⁶³⁴ Davies expected the midwife to carry Syrup of Chloral and extract of ergot in her bag.

⁶³⁵ T. Davies, *The Queen Charlotte's Text-book*, p. 565.

⁶³⁶ T. Davies, *The Queen Charlotte's Text-book*, p. 565.

⁶³⁷ T. Davies, *The Queen Charlotte's Text-book*, p. 566.

⁶³⁸ T. Davies, *The Queen Charlotte's Text-book*, p. 619.

⁶³⁹ T. Davies, *The Queen Charlotte's Text-book*, p. 619.

called oxytocic, drugs is demonstrated by a whole chapter of *The Queen Charlotte's Textbook* being specifically devoted to them. Ergot and its derivatives and extract of the posterior lobe of the pituitary gland are discussed in depth.

Ergot was described as being invaluable for treating postpartum haemorrhage (PPH). It is stated that its effect was due to the alkaloids contained in it, and that it was given in the form of liquid extract of ergot. The drug named *ergometrine* was described as having been recently isolated from ergot by H. Dudley and Chassar Moir which was described as “remarkable for its rapidity of action” rivalling that of pituitary extract. The chief use of pituitary extract was in the third stage of labour as a treatment for PPH, after the delivery of the placenta. The use of it prior to the placenta leaving the uterus was described as potentially dangerous. A rare danger, potentially fatal, of pituitary extract that could complicate the management of the birth of the placenta was described as “post-pituitary shock”.⁶⁴⁰ This involved severe maternal collapse within minutes of an injection of the drug.⁶⁴¹

Midwifery practice

Examples of clinical practice in 1935⁶⁴² and 1939⁶⁴³ were provided by Obstetric Case Books, H.-Mt.15, used by student maternity nurses and midwives to record the cases they attended. These were provided to students by the Health Department to gather evidence that they had attended the required number of lectures, births, and acquired expertise in the requisite techniques.

In 1935 the case records show that extract of ergot was given routinely after the birth of the baby even when there was no evidence of heavy bleeding. ‘Ergotonine’ tabs⁶⁴⁴ dissolved in water, and pituitrin were also used. The placenta was “expressed”, in keeping with the obstetric and midwifery texts of the time. Ergot was also used postnatally to ensure good involution of the

⁶⁴⁰ Later proved to be anaphylactic shock

⁶⁴¹ The treatment was “to give camphor, caffeine, adrenalin and strychnine, and rectal saline.” T. Davies, *The Queen Charlotte's Textbook*, p. 622.

⁶⁴² E. Aitken, *Obstetrical Casebook*.

⁶⁴³ C. Radcliffe, *Obstetrical Casebook*,

⁶⁴⁴ A trade name for ergotoxine, (L. Oakes, A. Bennett, *Materia Medica for Nurses*, Livingstone, Edinburgh, 1938).

uterus. The treatment for PPH is as instructed from the textbooks but ergometrine is not listed in the drugs used, nor is its use recorded anywhere in the 1935 student records. “Creed’s” [sic] or Dublin method was recommended to expel the placenta. Ergot and Pituitrin were the drugs used to treat PPH “immediately after removal of placenta”.⁶⁴⁵

The 1939 case reports show that liquid extract of ergot was being given routinely, with “satisfactory”, “moderate” or “fair” blood loss, at least postnatally, and three times a day on the first day postpartum. It is apparent that by 1939 liquid extract of ergot was still being given routinely, but the new drug, ergometrine was now being given by injection when there was excessive bleeding or if there was a high risk of PPH.

The Social Security Act 1938

The Social Security Act 1938 brought in by Joseph Savage’s Labour government provided for free maternity care for New Zealand women. This included both free obstetric and midwifery care (including attendance at homebirth) and free hospitalisation including two weeks postnatal inpatient care. Women were entitled to care from both a doctor and a midwife, but unless the woman chose to go to the midwife directly, the doctor had jurisdiction over the midwife.

Rising Hospitalisation

During the Second World War, there was an acute shortage of nurses and midwives, and a shortage of hospital beds due to the demand for hospitalisation engendered by the Obstetric Society’s promotion of ‘safer’ and ‘pain-free’ birthing in hospital.⁶⁴⁶ The shortage of maternity beds at that time was exacerbated by four factors; the introduction of free hospitalisation, the baby boom following the Second World War, a nursing shortage, and the five day working week introduced by the Labour Government.⁶⁴⁷ By the 1950s, birth for the majority of both Maori and

⁶⁴⁵ E. Aitken, *Obstetrical Casebook*.

⁶⁴⁶ For more discussion of these issues, see: J. Donley, *Save the Midwife*; The New Zealand Obstetrical and Gynaecological Society, The Obstetrical and Gynaecological Section, *The New Zealand Medical Journal*, Vol. XXXIX, 1940, p.4; The New Zealand Obstetrical and Gynaecological Society, The Obstetrical and Gynaecological Section, *Clinical Returns for the years 1936-37*, *New Zealand Medical Journal*, Vol. XXXVII, 1938.

⁶⁴⁷ D. Gordon, *Doctor Down Under*.

Pakeha mothers was taking place in hospital rooms arranged like operating theatres, under conditions suitable for surgery. Midwives, previously autonomous practitioners, were being forced into working in hospital, as the demand for homebirth diminished. They had to abide by hospital rules, policies and routines usually formulated by doctors. When nurses, socialised into this hierarchical system, registered as midwives and later trained student midwives, they brought their nursing values and practices into midwifery.⁶⁴⁸

1940s management of the birth of the placenta

A fourth edition of Munro Kerr's *Combined Textbook of Obstetrics and Gynaecology*, found in the old Otaki Maternity Hospital, was used as a source for the obstetrical management of the birth of the placenta in the 1940s.⁶⁴⁹ The management is the same as that recommended by previous authors except that there was no mention of waiting for the cord to stop pulsating, and the cord was cut regardless of the baby's respiratory efforts. In the case of a retained placenta it was recommended that the bladder be checked to ensure that it was not overfull or distended.⁶⁵⁰ Ergot or pituitary extract was routinely given. Retained membranes were no longer always removed using manual removal, but oral liquid extract of ergot or ergometrine by mouth or IM twice daily was used in the hope that the membranes will become detached and expelled.⁶⁵¹ The woman was kept in bed until "about the tenth day".⁶⁵² A practice handbook from University College Hospital, London, also reiterated that:

⁶⁴⁸ For further discussion of these issues, see: S. Pairman, From autonomy and back again: educating midwives across a century Part 1, *New Zealand College of Midwives Journal*, Vol. 33, October, 2005; S. Pairman, From autonomy and back again: educating midwives across a century Part 2, *New Zealand College of Midwives Journal*, Vol. 34, April, 2006, pp. 11 – 15.

D. Davis, Spoilt for Choice: consuming midwifery care, *British Journal of Midwifery*, Vol. 11, No. 9, September, 2003, p. 574.

⁶⁴⁹ J. Munro Kerr, R. Johnstone, et al., *Combined Textbook of Obstetrics*.

⁶⁵⁰ J. Munro Kerr, *Combined Textbook of Obstetrics*, p. 554.

⁶⁵¹ Oral ergometrine was still in use in Wellington in the 1960s for this purpose, or for 'sub-involution of the uterus' (personal experience).

⁶⁵² J. Munro Kerr, *Combined Textbook of Obstetrics*, p. 636.

Continual handling and kneading of the uterus during normal relaxation will only cause partial separation of the placenta and predispose to a long third stage and postpartum haemorrhage.⁶⁵³

In his 1948 third edition Corkill continued to stress the importance of keeping the woman warm by having a warm room and strategically placed blankets. He expected the process to take “about fifteen minutes” and commented that only rarely will the mother expel the placenta herself.⁶⁵⁴ The Dublin ‘piston’ manoeuvre was used to expel the placenta, but once the placenta was visible at the vulvar opening a modification of a form of cord traction called ‘Brandt’s Manoeuvre’⁶⁵⁵ was recommended:

It limits the downward descent of the uterus and lessens the risk of inversion of the uterus. Once the placenta is clearly in the lower segment and perhaps bulging into the vagina, further pressure on the fundus is withheld; instead, the fingers of the left hand are applied to the abdomen at the junction of the upper and lower segments and above the placenta. Pressure is then directed backwards and upwards. The effect is to press the upper uterine segment *upwards and away from the placenta* while at the same time the placenta is gently guided down.⁶⁵⁶ [Emphasis in original]

“Control” of the uterus was to be maintained for at least half an hour, or more, with massage and expression of clots as required if there is uterine relaxation. The attendant was adjured that “manipulation of the uterus must not, however, be too persistent, lest the natural clotting process in the vessels be interfered with.”⁶⁵⁷ The use of pituitary extract or ergometrine (which had almost totally replaced ergot for use in third stage) was mentioned as being used by some practitioners routinely following the expulsion of the placenta, others used it only for uterine atony or PPH.

Prophylactic use of Uterotonics and Practice

Pituitary Extract, also known as oxytocin or pitocin was being given in second stage, once the baby’s head was visible, for ineffective pains. It was also being used in a 2 iu dose “just as the child

⁶⁵³ F. Browne, *Obstetric Technique: Methods in Use in the Obstetric Unit, University College Hospital, London*, Wilding and Son, Shrewsbury, 1945.

⁶⁵⁴ T. Corkill, *Lectures on Midwifery and Infant Care: A New Zealand Course*, Whitcombe and Tombs Ltd, Wellington, 1948, p. 107.

⁶⁵⁵ This is the first mention found in this research to do with supporting or ‘guarding’ the uterus against inversion.

⁶⁵⁶ T. Corkill, *Lectures on Midwifery and Infant Care*, 1948, p. 108.

⁶⁵⁷ T. Corkill, *Lectures on Midwifery and Infant Care*, 1948, p. 110.

was about to be born to offset the effect of the anaesthetic and to assist the third stage contractions.”⁶⁵⁸ From this comment it is deduced that there was a perceived need to use an ecbolic to combat uterine atony caused by anaesthesia. Once the baby was born, in the third stage of labour it was considered that if a dose of pitocin had not already been given it was “quite legitimate, and probably a wise precaution to give 2 or 3 units at the commencement of third stage, especially if feeble action from the uterine inertia or uterine exhaustion is feared”.⁶⁵⁹ The risk of a placenta being trapped or retained by the induced uterine contraction is mentioned, but dismissed as a “groundless fear”.⁶⁶⁰

Ergot was recognised as a powerful and long acting uterotonic, but with a slower onset than pitocin and producing continuous contraction of the uterus that made it unusable for induction or augmentation of labour. Corkill asserted that “Ergot must only be used after the expulsion of the placenta.”⁶⁶¹ Ergot was used to “supplement pituitary extract in the prevention and treatment of postpartum haemorrhage.”⁶⁶² Frequently it was used following the expulsion of the placenta routinely, and also two or three times daily for the first few days postnatally. The ergot derivatives are discussed and Corkill named ergotoxine as an early alkaloid that replaced the 1914 liquid extract of ergot, which had been “condemned as unreliable”.⁶⁶³

The practice had been to wait until the umbilical cord stopped beating before tying it, which usually took five to ten minutes. The baby then received a “definite quantity of blood which would otherwise be lost to it”. Corkill left open the choice of when to tie it, mentioning that there was an opinion that the additional blood was unnecessary and liable to “overload the circulation” and

⁶⁵⁸ T. Corkill, *Lectures on Midwifery and Infant Care*, 1948, p. 135.

⁶⁵⁹ T. Corkill, *Lectures on Midwifery and Infant Care*, 1948, p. 135.

⁶⁶⁰ T. Corkill, *Lectures on Midwifery and Infant Care*, 1948, p. 135.

⁶⁶¹ T. Corkill, *Lectures on Midwifery and Infant Care*, 1948, p. 136.

⁶⁶² T. Corkill, *Lectures on Midwifery and Infant Care*, 1948, p. 136.

⁶⁶³ T. Corkill, *Lectures on Midwifery and Infant Care*, 1948, p. 135.

that consequently some practitioners were “ligaturing the cord almost immediately after birth or as soon as respiration was established.”⁶⁶⁴

Brown, Gilbert and Dobbs’ 1950 edition of the *Midwifery* textbook followed the 1940s methods. The baby was placed in the cot immediately and not given to the mother until sometime after the birth. During normal management of the delivery of the placenta the well-contracted uterus was used as a piston to expel the placenta into the bed. This was clearly differentiated by Brown from Crede’s manoeuvre which was used to express the placenta from the uterus in the case of PPH.⁶⁶⁵ Brown described Crede’s manoeuvre as squeezing the walls of the upper segment together to expel the placenta from the upper segment of the uterus into the lower segment. Brown suggested that under natural conditions,

the patient should only be able to expel the placenta from the vagina by voluntary efforts at bearing down and this would take some three to four hours to accomplish.⁶⁶⁶

If a midwife could not remove the placenta from the uterus, in the case of PPH, it was suggested that an injection of ergometrine might be useful to reduce the bleeding.

Control of the uterus; research and pharmacology

Research was taking place internationally throughout the twentieth century to discover uterotonics and techniques that were effective and safe for controlling the uterus. Enabling the safe initiation and augmentation of labour, and the ability to induce contractions in atonic uterus, or better yet, to prevent atony, were seen as ways to save lives. Different products were examined and trialled, using different doses, different timing of doses and different methods of administration. New research journals were helping disseminate the research.⁶⁶⁷ The idea of preventing PPH by the prophylactic use of uterotonic drugs was popular. Preventative medicine

⁶⁶⁴ T. Corkill, *Lectures on Midwifery and Infant Care*, 1948, p. 149.

⁶⁶⁵ R. Brown, B. Gilbert, R. Dobbs, *Midwifery: Principles and Practice for Pupil Midwives, Teacher Midwives and Obstetric Dressers*, 3rd Ed. Edward Arnold, London, 1950, p. 606.

⁶⁶⁶ R. Brown et al., *Midwifery*, p. 607. The length of time that is claimed for a woman to expel her placenta is appears to be exaggerated. Even in a woman lying supine the process rarely takes more than one hour, usually less.

⁶⁶⁷ An example is N. Eastman, E. Novak, Eds., *Obstetrical and Gynecological Survey*, Vol. 6, Baltimore, 1951, that published detailed abstracts of research articles from international journals including the article by Doreen Daly.

was an important ideology of the time: asepsis and antisepsis prevented infection, vaccinations were being developed, pharmacological research had discovered drugs that could treat previously fatal diseases, such as insulin for diabetes, and Vitamin B12 for pernicious anaemia. The discovery and development of effective uterotonics that could reduce the wastage of human life was hugely exciting and very desirable.

In 1949, in a clinical trial of the use of oxytocin and ergometrine for shortening the length of the third stage of labour each drug was given intravenously to 100 women, either with the birth of the baby's anterior shoulder or immediately after the baby was born. The birth attendant was unaware which drug was being used. Women thought to be at risk of PPH were excluded from the trial but "Paraldehyde amnesia was routinely used, and episiotomy was almost a routine procedure."⁶⁶⁸ The speed of action and the blood loss were compared for each drug: there was an increase in the development of contraction ring and manual removal in those women who received the oxytocin as compared to the ergonovine (ergometrine), but the oxytocin worked more quickly. The IV ergometrine "occasionally produced noticeable cyanosis of the chest, neck, head and arms, but apparently without serious general effect."⁶⁶⁹ The blood loss from the women was reduced, and despite the side effects, the authors' recommendations were that the drugs "should be available for intravenous use directly after the birth of the baby, if deemed necessary."⁶⁷⁰ Since oxytocin produced its effect in "half the number of seconds required for ergonovine" it was recommended as the drug of choice in "actual or potential post partum hemorrhage".⁶⁷¹

In 1951 a British research report was published that examined the use of intramuscular ergometrine given at the crowning of the baby's head, in a series of 490 women with singleton

⁶⁶⁸ W. Grimes, R. Bartholomew, et.al., A Comparison of Intravenous oxytocin and Ergonovine in the Control of Hemorrhage Attending Delivery, *Obstetrical and Gynecological Survey*, Vol. 4, Wilkins, Baltimore, 1949, p. 349.

⁶⁶⁹ W. Grimes, R. Bartholomew, et.al., A Comparison of Intravenous oxytocin and Ergonovine in the Control of Hemorrhage Attending Delivery, *Obstetrical and Gynecological Survey*, Vol. 4, Wilkins, Baltimore, 1949, p. 350.

⁶⁷⁰ W. Grimes, A Comparison of Intravenous oxytocin and Ergonovine, p. 350.

⁶⁷¹ W. Grimes, A Comparison of Intravenous oxytocin and Ergonovine, p. 350.

pregnancies who were compared with a control group of 510 women.⁶⁷² Women perceived to be at high risk of PPH were excluded. All blood loss was carefully measured. It was found that the use of ergometrine significantly shortened the third stage of labour, lessened the blood loss and significantly reduced the number of PPHs in women having their first babies, but was not significant in women having subsequent babies. Nevertheless, it was suggested that doctors (not midwives) should use ecbolics routinely, using the intravenous route of administration as it was quicker and more effective than intramuscular. Daly debated the interference in normal labour but supported the use of intramuscular ergometrine by midwives:

The evidence seems to indicate that, if it were common practice, the incidence of postpartum haemorrhage might well be lessened and thus cause a reduction in maternal mortality. At the same time, most of us are fearful of interfering with what is usually a normal physiological process, particularly when there is even a remote chance of our treatment causing complications. The present policy of allowing the midwife to give ergometrine for third stage bleeding is probably safer than advocating it as a routine prophylaxis, but it should be impressed upon her that it is better to give it early, rather than waiting until there has been heavy loss and other methods of treatment have failed.⁶⁷³

Daly's work was critiqued by the editors of the *Obstetrical and Gynecological Survey* who questioned whether the low incidence of placental retention was because IM ergometrine was used rather than her recommended IV route. (Their stated preference was to use pitocin IM immediately after the birth of the baby.) It was also noted that the author's mean figure for PPH in the control group was a hugely high 13.2 percent which was much higher than the editors' own figures of ten percent. The editors felt that the argument for routine second stage ergometrine was weakened by the high PPH rate in the control group.⁶⁷⁴ The fact that the findings were clinically insignificant for women who were not having first babies, and yet it was recommended that ergometrine, with its side effects of nausea, vomiting, abdominal pain and hypertension, be used routinely for all women also appears questionable. Daly's description of a highly medicalised third stage of labour as 'normal' demonstrates how far medical epistemology had moved from an understanding of natural instinctive birthing.

⁶⁷² D. Daley, *The Use of Intramuscular Ergometrine at the End of the Second Stage of Normal Labour*, *Journal of Obstetrics and Gynaecology of the British Empire*, Vol. 58, 1951, p. 388.

⁶⁷³ D. Daley, *The Use of Intramuscular Ergometrine*, p. 388.

⁶⁷⁴ N. Eastman, E. Novak, Eds. *Obstetrical and Gynecological Survey*, p. 795.

That midwives were able to use intramuscular ergometrine to “effectively control third stage and postpartum haemorrhage” was confirmed in 1956 with the addition of Hyaluronidase to ergometrine to promote the rapid absorption when given intramuscularly.⁶⁷⁵ Dewhurst and Dutton’s research stressed the recurrence of PPH in some women, recognising that women who had a PPH were five times more likely to have a PPH with subsequent births than a woman who had not experienced a PPH. Their research suggested that IV ergometrine at the end of second stage could reduce the incidence of PPH by 50 percent.⁶⁷⁶

Synthetic Oxytocin

In 1953 a hormone was synthesised that was “chemically and biologically identical” to naturally occurring pure oxytocin.⁶⁷⁷ By 1955 the Sandoz laboratories had devised a method for the synthesis of oxytocin and named it syntocinon. The synthetic form prevented contamination with vasopressin and reduced the vasoconstrictor action of the natural product making it a safer product.⁶⁷⁸

An example of American management of third stage is portrayed in 1958 in a discussion comparing oxytocin (the purified hormone isolated from the pituitary glands of cattle), pitocin and syntocinon in inducing labour and managing the birth of the placenta.⁶⁷⁹ It was admitted that there was variation in the methods chosen by clinicians in managing the birth of the placenta, but in general:

spontaneous or a modified Crede manoeuvre is relegated to those instances in which the placenta is retained for thirty minutes or longer. [...] The time often varies with the operator’s technic [sic], in that episiotomy repair may often be done before placental delivery. Significant, however, that prolonged third stage did not

⁶⁷⁵ H. Francis, Progress report 9 – Obstetrics, *British Journal of Clinical Practice*, Vol. 10, London, 1956, p. 485; The mixture of ergometrine and hyaluronidase was later shown to be less effective than simple ergometrine.

⁶⁷⁶ C. Dewhurst, W. Dutton, Recurrent abnormalities of the third stage of labour, *Lancet*, Vol. 2, 1957, pp. 764-767.

⁶⁷⁷ R. Stewart, R. Slezak, Synthetic and Natural Oxytocins, Comparison of their effects in initiating labor, *Obstetrics and Gynecology Journal of the American College of Obstetricians and Gynecologists*, Vol. II, 1958, p. 295.

⁶⁷⁸ R. Stewart, Synthetic and Natural Oxytocins.

⁶⁷⁹ T. Dillon, R. Bonsnes, and R. Douglas, Relative Efficacy of Oxytocin, Pitocin, and Syntocinon: A clinical investigation, *Obstetrics and Gynecology Journal of the American College of Obstetricians and Gynecologists*, Vol. 12, July – December, 1958. pp. 581 – 588.

occur in this series. Oxytocics are sometimes given prior to placental delivery, but are mainly administered after the third stage.⁶⁸⁰

Stewart and Slezak's research compared natural and synthetic oxytocin, concluding that their action, effectiveness, benefits and risks were the same except that the "reaction from animal protein" (anaphylactic shock) that could occur with the animal based oxytocin was avoided with the use of syntocinon.⁶⁸¹ The impact of anxiety on the effectiveness of oxytocin was noted:

It is noteworthy that the excited, fearful patient [...] frequently develops prolonged labour with secondary uterine inertia often associated with cervical dystocia. Could this syndrome be associated with excessive availability of adrenalin, with its subsequent relaxing effect upon the uterus?⁶⁸²

Stewart, from Seattle, published more research on Syntocinon in 1959, comparing syntocinon with the use of ergot alkaloids for managing the birth of the placenta, and evaluating oxytocin's effect on milk letdown.⁶⁸³ The ability of syntocinon to improve let-down in mothers with poor lactation was evaluated. Again, the link between anxiety and stress possibly due to adrenalin reducing the efficiency of natural oxytocin is noted.

Increasing intervention

A 1959 article critiques contemporary Australian practice and portrays the increasingly interventionist nature of obstetrical practice:

Oxytocic drugs, particularly ergometrine, are frequently given before the delivery of the placenta; Crede's expression of the placenta is seldom performed; manual removal is carried out earlier and more readily, and even prophylactically, and blood transfusion is used more freely⁶⁸⁴.

The author discusses the increasing use of manual removal and ecbolics in the frequent cases where the woman is completely anaesthetised, for complicated births such as forceps deliveries, and breech extractions. The perceived risk of retained placenta, atonic uterus and PPH, in these

⁶⁸⁰ T. Dillon, R. Bonsnes, and R. Douglas, Relative Efficacy of Oxytocin, p. 584.

⁶⁸¹ R. Stewart, R. Slezak, Synthetic and Natural Oxytocins, pp. 295 – 299.

⁶⁸² R. Stewart, R. Slezak, Synthetic and Natural Oxytocins, p. 299.

⁶⁸³ R. Stewart, R. Nelson, Synthetic Oxytocin: I. Comparison of effect with alkaloids of ergot in the third and fourth stages of labor, II. Evaluation of its effects in milk letdown, *Obstetrics and Gynaecology Journal of the American College of Obstetricians and Gynecologists*, Vol. 13, January-June, 1959, pp. 204 – 212.

⁶⁸⁴ G. Adam, New Thoughts on Obstetrical Haemorrhage, *The Medical Journal of Australia*, Vol. II, July to December, 1959, pp. 272, 273.

cases and potentially in cases where women habitually have retained placenta are seen as meriting such prophylaxis. However he questions the use of routine administration of IV ecbolics prior to the completion of third stage, believing that selective rather than routine use was the effective way to manage the birth of the placenta. He considered prophylactic use of an IV ecbolic mandatory “in the presence of pregnancy anaemia, excessive parity, poor general physique, multiple pregnancy and previous hydramnios.”⁶⁸⁵

Research into the physiology of placental parturition was also being conducted in Australia; in 1959 Cook critiqued the idea that the formation of a retro-placental blood-clot was a necessary pre-requisite to the separation and expulsion of the placenta from the uterus. She pointed out that, in her study of what she refers to as 700 ‘normal’ third stages, there was no blood loss in some cases, concluding that separation of the placenta could not, therefore, be reliant on the blood clotting between the placenta and the uterine wall. Although this was not physiological labour; all 700 women were given IM injections of ergometrine 0.5mg with hyalase⁶⁸⁶ in second stage labour, most midwives would agree that placental birth with very little blood loss is not rare.⁶⁸⁷ Obstetric research, with particular emphasis on what was now known as “preventative obstetrics”, continued into the next decade, most of the research continued to be involved with the evaluation and comparison of differing practices for the administration of syntocinon and ergometrine.

Preventative Obstetrics

Syntocinon and ergometrine were now recognised as the drugs of choice for third stage prophylaxis and the treatment of PPH. The older forms of ergot and pituitary extract had been discarded.⁶⁸⁸ A 1961 discussion on preventative obstetrics demonstrated that Ergometrine given with the birth of the baby’s anterior shoulder was generally considered to minimise the risk of

⁶⁸⁵ G. Adam, *New Thoughts on Obstetrical Haemorrhage*, p. 273.

⁶⁸⁶ An alternative name for Hyaluronidase which was used with ergometrine to facilitate its absorption into the tissues.

⁶⁸⁷ Personal experience and communication from other midwives.

⁶⁸⁸ Peel, J., *Materia Medica and Pharmacology*, N. M. Peryer, Wellington, 1960.

PPH. It also emphasised the need for checking carefully for a second twin before administering the drug, as there had been instances of second twins “being caught in a tightly contracting uterus.”⁶⁸⁹ There were also reports of uterine rupture associated with the use of ergometrine given with the crowning of the head where shoulder dystocia occurred. Giving the injection only with the birth of the anterior shoulder was recommended.⁶⁹⁰

The British Ministry of Health Report

The British Ministry of Health Report on Confidential Enquiries into Maternal Deaths 1955 – 1957 considered that over 50 percent of the maternal deaths from PPH were avoidable, attributing them to ‘mismanagement’ of the birth of the placenta.⁶⁹¹ In response, an article by Embrey compared “traditional” management of third stage with “modern” management, pointing out how quickly “successful delivery” could be followed by disastrous consequences.⁶⁹² He outlined the same traditional, “essentially conservative” management that preceded the advent of prophylactic ecbollic use already documented in this chapter. He also commented that the slight gush of blood generally regarded as indicative of placental separation was not a reliable sign as it did not necessarily indicate that the placenta had fully separated. Misinterpretation of the signs of separation with “consequent premature meddling” was identified as a common problem.⁶⁹³

“Modern Management” included fewer Crede’s expressions, more frequent manual removal of placenta, common use of injected oxytocics, and even “surreptitious” cord traction.⁶⁹⁴ The injection of an oxytocic prior to the birth of the placenta was relatively new but had become generally accepted. If a midwife was faced with a PPH with an undelivered placenta she was no

⁶⁸⁹ For discussion of preventative obstetrics, see: E. Philipp, Preventive Obstetrics, *The British Journal of Clinical Practice*, Vol. 15, No. 8, August, 1961, p. 681.

⁶⁹⁰ C. Dewhurst, Oxytocic drugs in the second stage of labour, Correspondence, *British Medical Journal*, August, 1966, p. 520.

⁶⁹¹ The British Ministry of Health Report on Confidential Enquiries into Maternal Deaths 1955 – 1957.

⁶⁹² Embrey, M., Modern Management of the Third Stage of Labour, *The British Journal of Clinical Practice*, Vol. 16, No. 8, August 1962, pp. 534 – 539.

⁶⁹³ Embrey, M., Modern Management of the Third Stage of Labour, p. 534.

⁶⁹⁴ Embrey, M., Modern Management of the Third Stage of Labour, p. 534.

longer expected to use Crede's manoeuvre or manual removal but rather to give an IM ergometrine 0.5mg injection and seek obstetric help. Although not totally accepted by all practitioners, prophylactic use of ergolic injections in second stage labour, usually with the crowning of the baby's head or the birth of the anterior shoulder, was common in hospitals despite the occasional "imprisonment" of the placenta necessitating manual removal.

"Active management"

Embrey labelled the use of ergolic injections in second stage labour as the "active form of management."⁶⁹⁵ He explained how crucial the timing of the injection was to the success of the management, depending on whether the injection is given IM or IV:

After the intravenous injection of ergometrine the uterus will be felt to harden in $\frac{3}{4}$ - 1 minute, and if an attempt is now made to express the placenta it will usually be successful. But if the manipulation is delayed the placenta is likely to be imprisoned by the constriction ring that forms at the junction of upper and lower segments.

Some advise the injection at the crowning of the head, others when the anterior shoulder is born, while several writers stress the importance of delivering baby's trunk slowly so that the placenta is separated and discharged as the buttocks are expelled. If ergometrine is used intravenously it would seem wisest to give it with the birth of the anterior shoulder, while an intramuscular injection is best made at head crowning.⁶⁹⁶

He then recommended the use of a new product, syntometrine, a combination of 5 IU of syntocinon with ergometrine 0.5mg, thus combining the effect of the rapid action of oxytocin with the slower acting but continuous contraction of ergometrine. He noted that syntocinon was more "physiological" than ergometrine but had not been popular in Britain, possibly due to the profound shock that could be induced by earlier non-synthetic products.

Expression versus cord traction

Embrey "permits" Crede's manoeuvre but limits its use to one attempt without anaesthesia, and one with anaesthesia. Because of the maternal shock that could ensue following repeated attempts some obstetricians were advocating a ban on its use. Traction on the umbilical cord was becoming popular again but with two important changes. The traction was only to be applied while there was a uterine contraction, and while the other hand was applied to steady the uterus.

⁶⁹⁵ Embrey, M., *Modern Management of the Third Stage of Labour*, p. 536.

⁶⁹⁶ Embrey, M., *Modern Management of the Third Stage of Labour*, p. 536.

The method referred to as Brandt-Andrews Manoeuvre was described as the palmar surfaces of the fingers being applied to the uterus through the abdominal wall, applying upward pressure above the symphysis pubes “over the junction of the lower and upper segments of the uterus”.⁶⁹⁷ Donaldson also had proposed a similar process, and described instances of uterine inversion which he believed would be avoided using his technique. Five minutes was considered to be a ‘normal’ length for third stage labour.⁶⁹⁸

Medical Choice

Demonstrating that not all practitioners favoured the new ‘active management’, and that conservative methods were still in use, Hector and Bourne’s 1963 third edition “modern” nursing text took a conservative approach despite its title.⁶⁹⁹ *Midwifery: Ten Teachers*, a 1963 reprint of the 1961 tenth edition of the medical text concurred with this approach.⁷⁰⁰ The umbilical cord was left to stop pulsing prior to it being tied and cut, and the ‘traditional’ careful and patient care of third stage with ergometrine or syntometrine to be administered only if there was heavy bleeding was taught. *Midwifery*, however, also approved of the use of “ergot” in the form of intramuscular ergometrine being used, particularly when an anaesthetic had been administered. There were also differences between practitioners about the relative merits of ergometrine versus syntocinon, and later syntometrine. Graeme Sharp, a Wellington obstetrician, remembered a heated argument with Corkill about which ecbolic was preferable.⁷⁰¹

A new text for nurses was introduced to New Zealand in 1962 written by Professor G. H. Green of Auckland. In contrast to Corkill’s generous allotment of time for the third stage of labour, and his urging for patience, Green suggested that the “average normal duration” of third stage should be

⁶⁹⁷ Embrey, M., *Modern Management of the Third Stage of Labour*, p. 536.

⁶⁹⁸ I. Donaldson, *The Management of the Third Stage of Labour*, *The British Journal of Clinical Practice*, Vol. 17, No. 9, September, 1963, pp. 507 – 509.

⁶⁹⁹ W. Hector, G. Bourne, *Modern Gynaecology with Obstetrics for Nurses*, William Heinemann Medical Books Ltd, London, 1963.

⁷⁰⁰ F. Roques, et al. Eds., *Midwifery*.

⁷⁰¹ G. Sharp, Oral History Audiotape, October, 2007.

five to ten minutes.⁷⁰² Green disdained the “hands off the fundus” approach, preferring hands on, but “watching, not rubbing.”⁷⁰³ He pointed out that the art of managing third stage is dependent on the art of detecting when the placenta has separated and is therefore deliverable. He outlined the use of Brandt’s manoeuvre as the most reliable sign of placental separation.

If the placenta is still in the fundus, pressure with the edge of the hand over the lower segment tends to push the fundus upwards and the cord recedes appreciably (at least 5cms) into the vagina. If the placenta is separated and lying in the cervix or vagina the upwards movement does not pull the cord up the vagina.⁷⁰⁴

Green reflects changing practices by describing four methods of ‘delivering’ the placenta; firstly “voluntary expression by the patient,” but added that it was perfectly in order to use cord traction as the patient bears down if the placenta has separated.⁷⁰⁵ Expression of the separated placenta using the uterus as a piston was the second method to be used but only if the bladder was empty, and the placenta separated. The third method suggested was the Brandt-Andrews method, with the flat of the left hand behind the symphysis pubis holding the fundus firmly upwards while cord traction was used to deliver the placenta. Green identified this method as safe and effective, even if the placenta was “caught in the cervix”, stating that if the left hand is firmly holding the uterine body upwards the umbilical cord would break “long before an inversion of the uterus can be produced.”⁷⁰⁶ Green emphasised this point:

The dangers of cord traction have actually been taken to mean the risks of producing an inversion of the uterus but have possibly been exaggerated in the past. Uterine inversion is actually most often spontaneous and primarily due to both fundal implantation of the placenta and an atonic uterus. It cannot be produced by cord traction unless the uterus is completely lacking in tone and the placenta is still attached directly to the fundus.⁷⁰⁷

Green believed that the giving of IV ergometrine with the birth of the head or anterior shoulder of the baby was a good prophylactic measure despite some slightly increased risk of retained

⁷⁰² G. Green, *Introduction to Obstetrics*, 1962,

⁷⁰³ G. Green, *Introduction to Obstetric*, 1962, p. 69.

⁷⁰⁴ G. Green, *Introduction to Obstetric*, 1962, p. 69.

⁷⁰⁵ The woman would not have been upright.

⁷⁰⁶ G. Green, *Introduction to Obstetric*, 1962, p. 71.

⁷⁰⁷ G. Green, *Introduction to Obstetrics*, 1962, p. 71.

placenta, transient hypertension and dangers from an undiagnosed twin. IM use of ergometrine he reserved for following third stage, when he believed it should be given routinely, and could safely be repeated within an hour if necessary. His ideas were policy at Wellington Public Hospital and Wellington St Helens Hospital in the late 1960s until at least 1978.⁷⁰⁸ A 1965 Wellington student case-study records:

An injection of 0.5mg ergometrine was given intravenously – downward and backward traction was applied to the babies head [sic] until the anterior shoulder appeared under the symphysis pubis – then the head was pushed upwards whilst watching the perineum closely as the posterior shoulder appears, the rest of the baby was delivered by lateral flexion [...] The separation of the placenta is indicated by the rising up of a well contracted fundus, the lengthening of the cord outside the vagina, and a slight sudden haemorrhage.⁷⁰⁹

Unfortunately, how the placenta was expelled was not described. Green's 1962 and 1966 editions are unchanged in his discussions around the management of 'third stage'. By 1970 he not only uses IV ergometrine in second stage, but recommends that it is repeated following the third stage, and can be repeated yet again if there is further bleeding. Despite the known side-effects of pain, vomiting and hypertension, if the uterus is really atonic and the blood pressure is low because of bleeding these often do not appear to be an issue when ergometrine is repeated intramuscularly.⁷¹⁰

Unless there is hypertension or pre-eclampsia, a 0.5mg dose can safely be repeated twice within an hour of the first dose.⁷¹¹

He recommended controlled cord traction to expel the placenta, and allowed expression using the contracted uterus as a piston, but stated that forceful Crede's expression was never used.

The umbilical cord was clamped and cut immediately the baby was born, "delay may slightly increase the baby's blood volume and subsequent iron reserves, but only if the baby is held below the level of the placenta."⁷¹²

⁷⁰⁸ J. Stojanovic, Oral History Audiotape, 2008.

⁷⁰⁹ J. Percival, Obstetrical Case-book, H.-Mt.15, Wellington Public Hospital, Stojanovic Family Archives, Otaki, 1962 - 1965.

⁷¹⁰ Personal experience in the 1970s.

⁷¹¹ G. Green, *Introduction to Obstetrics*, 4th Ed., Peryer, Christchurch, 1970, p. 92.

By the 1970s ‘active management of third stage’ reigned supreme In New Zealand hospitals. Professor Bonham, of the Auckland Medical School, an associate of Green, is said to have been very influential in New Zealand obstetricians’ wholesale adoption of active management of third stage in the 1960s.⁷¹³ He was a powerful force, influential in the closure of small maternity hospitals and the adoption of routine episiotomy for first-time mothers. He was also the author of a controversial 1982 paper “Whither Obstetrics” that helped to galvanise women and midwives into action to save midwifery from extinction.⁷¹⁴ He firmly believed in, and taught, active management of the third stage to a generation of medical students as a means of preventing maternal mortality from PPH:

With oxytocin control, the third stage will be short and relatively bloodless. Failure to use an oxytocic agent as a routine must be regarded as negligent.⁷¹⁵

Bonham had been involved in the British Enquiries into Maternal Deaths in the late 1950s, and had been involved in researching the use of ecbolic injections and controlled cord traction.⁷¹⁶

The prophylactic administration of ecbolics to assist the birth of the placenta, combined with the use of modified Brandt-Andrews method of cord traction came to be regarded as normal management of the birth of the placenta. Variations in which drugs were used, and when, were dependent on the doctors’ preferences. Commonly syntocinon was given prior to the baby’s birth, with the crowning of the head or with the birth of the anterior shoulder.

Because the women were totally absorbed in birthing most did not notice the injection which could be given intravenously directly into the vein,⁷¹⁷ or intramuscularly into the woman’s thigh or

⁷¹² G. Green, *Introduction to Obstetrics*, 1962; G. Green, 1966, p. 112.

⁷¹³ Confirmed by G. Stimpson, Oral History Audiotape, Auckland, October, 2008; K. Clark, Oral History Audiotape, Palmerston North, November 2007; D. Ngan Kee, Oral History Audiotape, Palmerston North, November, 2007.

⁷¹⁴ For further discussion of these issues, see: M. Dobbie, *The Trouble with Women: The story of Parents Centre New Zealand*, Cape Catley, Christchurch, 1990; J. Donley, *Save the Midwives*.

⁷¹⁵ D. Bonham, cited in E. Papps, M. Olssen, *Doctoring Childbirth*, p. 181.

⁷¹⁶ D. Bonham, Intramuscular Oxytocics and Cord Traction in Third Stage of Labour, *British Medical Journal*, December, 1963, p.1620.

⁷¹⁷ Personal experience, St Helens Hospital, 1975 – 1980.

buttock.⁷¹⁸ Women were not given the choice although the procedure was explained in antenatal classes to those who attended. If syntocinon was given before baby was born, then the woman's blood pressure would be checked and following the birth of the baby, if the blood pressure was normal, she would be given an intramuscular injection of ergometrine. If syntometrine or ergometrine had been given instead of syntocinon then no further injection was required.⁷¹⁹

Interestingly the theoretical model's criterion regarding the use of gravity to facilitate placental birth was acknowledged in Myles' 1975 midwifery text, with the comment that:

The expulsion of the placenta was probably intended by Nature [sic] to be accomplished by the force of gravity, with the mother in a squatting attitude, as adopted for defaecation: but when the third stage is adopted in the dorsal position, the midwife's help is usually necessary.⁷²⁰

Further, the model's criterion regarding early mother-baby contact was also considered. The text, used in the St Helens hospital's midwifery schools, acknowledged that:

some authorities think the mother should see her infant immediately it is born, and before the umbilical cord is severed, believing that the emotional stimulus will cause the uterus to contract strongly.⁷²¹

It was still recommended, however, that it was appropriate for the mother to have her baby to cuddle when "the baby is dressed and the mother's toilet completed."

In the 1980s syntometrine appears to have been used routinely by the resident obstetric teams in hospitals.⁷²² Syntocinon became the preferred ecbolic for 'private' attending obstetricians, general practitioners, and, after 1990, independent midwives, as the distressing side effects of nausea,

⁷¹⁸ H. Woodfield, Oral History Audiotape, Palmerston North, October, 2007.

⁷¹⁹ The use of this method (using syntometrine and controlled cord traction) is explained in: M., Myles, *Textbook for Midwives*; Interestingly the author also describes other methods including using the uterus as a piston in case the midwife is working in a developing country where ecbolic drugs are not available.

⁷²⁰ M., Myles, *Textbook for Midwives*, p. 297.

⁷²¹ M., Myles, *Textbook for Midwives*, p. 289.

⁷²² An example was Wellington Women's Hospital where syntometrine was used for 'team patients' unless the blood-pressure was elevated.

vomiting, uterine cramps, and elevated blood pressure were avoided.⁷²³ Ergometrine came to be used after the birth of the placenta only if required to reduce bleeding. By the twenty-first century Syntocinon infusions came to be preferred where women were judged at risk of PPH, especially in cases where an intravenous infusion was already in situ. Ergometrine and syntometrine are still regarded as useful drugs, particularly in primary maternity settings, for fast control of atonic uterus where intravenous access has not been established.

Controlled cord traction was to begin immediately after the injection was given; the idea was that the placenta would be born immediately following the slow birth of the baby's body, legs and feet. Student midwives were adjured to pull hard: student midwives, and midwives in the 1970s were told firmly that "If the cord does not come off, you are not pulling hard enough!"⁷²⁴

Babies were still not being given to their mothers to breastfeed until some hours after the birth in the 1960s and 1970s.⁷²⁵ By the late 1970s the babies were being given to the mothers, but breastfeeding took place only after the birth of the placenta, any suturing, and the bathing and dressing of the baby, were complete (as prescribed by Myles). Changes took place at different times in different hospitals.

The research into the efficacy of prophylactic uterotonics used populations of women where they were supine, sedated or anaesthetised, and there was delayed and diminished mother-baby contact and breastfeeding. Stewart and Slezak had noted that the efficiency of women's hormones was reduced when women were anxious or afraid.⁷²⁶ The disempowerment of hospitalised women,⁷²⁷ the strangeness of their environment and their birth attendants, pain,

⁷²³ I. Calvert, Oral History Audiotape, Waikanae, July, 2008; Calvert expressed the opinion that she did not see as many distressing after effects with the use of syntometrine, as with ergometrine despite both drugs containing the same amount of ergometrine.

⁷²⁴ Instructions from Wellington St Helens Hospital Medical Superintendent, Graeme Duncan, 1976, personal experience.

⁷²⁵ For further information, see: J. Stojanovic, *Leaving Your Dignity*. 2002; A. Wassner, *A Labour of Love*; M. Dobbie: *The Trouble with Women*.

⁷²⁶ R. Stewart, R. Slezak, *Synthetic and Natural Oxytocins*, p. 299.

⁷²⁷ For more on this topic, see: J. Stojanovic, *Leaving your dignity*, 2002.

fear, and constraints on their mobility, would have made the women's hormonal dynamics very sub-optimal. There were admissions that the horizontal maternal position for birth made the birth of the placenta more problematic,⁷²⁸ but they did not translate into any ideas about changing the woman's position to improve her ability to birth her placenta.

The umbilical cord was clamped and cut at various times, by various practitioners, some of whom demonstrated opposing views as to the baby's need to receive the blood from the umbilical cord, although it had been strongly asserted that not cutting the cord immediately was beneficial to the baby.

By the 1960s expression of the placenta was giving way to active management of third stage of labour using uterotonic drugs by injection and the new 'controlled' cord traction, although placental expulsion using the Dublin manoeuvre was still seen occasionally particularly when the cord had avulsed, as an alternative to manual removal and was still being taught in the textbooks.⁷²⁹

Obstetric active management has continued relatively unchanged from the 1960s until today, although in some hospitals signs of separation of the placenta were awaited before cord traction was commenced.⁷³⁰ Definitions differ between organisations, as pointed out by Fahy, who gave the definition used by the Cochrane Meta-analysis as including the administration of a prophylactic injection of oxytocin with or immediately after delivery of the baby, early clamping and cutting of the cord, and controlled cord traction to deliver the placenta. The International Confederation of Midwives (ICM) and the Federation of International Gynaecologists and Obstetricians (FIGO) 2006 joint definition has altered its definition slightly to allow for slightly

⁷²⁸ E. Tweedy, G. Wrench, *Practical Obstetrics*; R. Brown, *Midwifery*.

⁷²⁹ Graeme Sharp, oral history audiotape, 2008. G. Green, *Introduction to Obstetrics*, 1962; G. Green, *Introduction to Obstetrics*, 1966.

⁷³⁰ National Women's Hospital, *Guidelines for Obstetric Care: Childbirth Education*, Author, 1998, p. 90.

delayed cord clamping and cutting, and encourages appropriate uterine massage following the delivery of the placenta.⁷³¹

Summary

This chapter has traced the change from practitioners relying on their hands and patience, to universal reliance on prophylaxis using uterotonic drugs to manage the birth of the placenta. The discovery of reliable uterotonics in the form of syntocinon and ergometrine gave medicine tools with which to treat PPH, drugs that were also used to shorten the third stage of labour with the stated intention of preventing PPH. Shortening the third stage of labour using active management was intended to reduce PPH, partly because it prevented “premature meddling”⁷³² in a stage of labour that had required patience, observational skills and “masterly inactivity to be successful.”⁷³³ Because of the physiologically suboptimal manner in which the third stage of labour was conducted it is likely that the incidence of PPH was increased from what would have occurred in a natural ‘instinctive’ birthing situation. Despite a few practitioners asserting that prophylaxis should be reserved for those at higher risk,⁷³⁴ the medical profession generally embraced the prophylactic use of active management of the third stage of labour with enthusiasm. Despite Embrey pointing out that many PPH’s occurred because of “premature meddling” in the natural process, following the British enquiry into maternal mortality, active management was strongly promoted in New Zealand by influential teachers in the obstetric profession as the only way to reduce PPH.

When measured against the theoretical framework, active management has little to recommend it, in that the criteria for active management do not fit well with the expectations of the model. Aspects of the theoretical model do, however, have relevance. For instance, the state of the mother’s mind, if distressed or anxious, especially if other factors that optimise placental birth are

⁷³¹ K. Fahy, *Third Stage of Labour Care for Women at Low Risk of Postpartum Haemorrhage*.

⁷³² For further discussion on these issues, see: Embrey, M., *Modern Management of the Third Stage of Labour*, p. 534; H. Jellett, *Maternal Mortality*, *New Zealand Medical Journal*, Vol. XXI, April 1922.

⁷³³ M. Mayes, *Handbook for Midwives*, 1937, p. 202.

⁷³⁴ W. Hector, G. Bourne, *Modern Gynaecology with Obstetrics for Nurses*.

also compromised, could predispose her to PPH, regardless of the method used to manage placental birth.

By the 1970s, active management of the third stage of labour was virtually universal. Traditional midwifery, and natural birth without intervention, to all intents and purposes, was extinct in New Zealand, as was the natural, physiological birth of the placenta. Even in situations where the baby was born prior to reaching hospital the umbilical cord was tied and cut, shoelaces being used as the recommended emergency ligature. Although some practitioners used the older methods of managing placental birth, natural birth of the placenta, without any intervention at all, no longer occurred. The next chapter will outline how physiological birth of the placenta re-emerged as an option for women.

Chapter Eight: The Loss, and Consequent Re-emergence of Physiological Placental Birth

Introduction

Midwifery knowledge had been subjugated, disregarded, and discarded in the gendered hierarchy of knowledge by medicine, a profession which had the advantages of being male oriented, better educated, and better funded, within a patriarchal society.⁷³⁵ Medical attitudes toward midwives were overtly antagonistic throughout the first few decades of the twentieth century and the literature makes it very clear that from an early stage they wished to replace midwives with trained nurses. Hester McLean of the Health Department mentions an example of medical disinformation:

At one of these lectures, given in the Red Cross rooms in Wellington, Dr. King [Truby King] made some statements regarding the practice of a midwife, which I felt he should be called upon to substantiate, and to give me the opportunity of looking into the matter. I think in his eagerness to impress he must rather have exaggerated the case he was illustrating, as repeated requests from me drew forth no reply or statement of facts.⁷³⁶

With doctors 'gate-keeping' and advising women that hospital care was the safest option, over a few decades homebirth in New Zealand became almost extinct. By the 1960s almost all Maori and European New Zealand women gave birth in hospital. Despite outbreaks of Staphylococcal aureus infection⁷³⁷ in babies in hospital during the 1950s and the earlier discrediting of twilight sleep as a safe method for birthing, hospitals still managed to maintain their reputation as being the safest place for women to give birth. By 1970 active management of the birth of the placenta was universally used in New Zealand hospitals, and physiological birth of the placenta was unknown to most maternity practitioners. There were still midwives, like Mrs Sullivan of Tawa, practising homebirth in the Wellington area into the 1950s,⁷³⁸ and some homebirth survived 'under the radar'. There were anecdotal accounts of women, 'accidentally' birthing at home, and there were still at

⁷³⁵ For further discussion of the subordination of women's health knowledge to that of medicine, see: B. Ehrenreich, D. English, *Witches, Midwives and Nurses: A history of women healers*, The Feminist Press, New York, 1973; For further information on authoritative knowledge, see: R. Davis-Floyd, C. Sargent, Eds., *Childbirth and Authoritative Knowledge*.

⁷³⁶ H. McLean, *Nursing in New Zealand: History and Reminiscences*, Tolan Printing, Wellington, 1932, p. 246.

⁷³⁷ Known as 'hospital bug' or H-Bug'.

⁷³⁸ For further information, see: J. Stojanovic, *Leaving your Dignity at the Door*, 2002.

least two midwives, one in Canterbury, and another in Auckland, providing homebirth in the early to mid-1970s.⁷³⁹

A wide range of primary and secondary sources was used to write this chapter. These include Maori writers, such as Mikaere and Mead, and personal stories of Maori experiences such as those gathered by Harte, and Boyd. Mein Smith, Papps, Pairman, Donley, Banks, were among the secondary sources, but for the midwives, including Donley, Pairman, and Banks, the midwives interviewed by Ogonowska-Coates such as Carolyn Young, and myself, the times written about in this chapter were lived experiences. This is true also for the oral history participants, whose voices also inform this chapter.

This chapter begins with discussion about the effects on Maori of losing homebirth, and consequently traditional placental birth. The effects of birthing being located within the technological world of hospital on women and midwives are then examined, and the rise of resistance to medically managed birth is outlined. The journey toward becoming comfortable with physiological placental birth required for midwives educated into a medicalised and nursified midwifery role is explored. The ethical and legal environment that enables women to control their birthing is explained, and how homebirth and physiological birthing within the hospital setting became possible is examined.

Maori Birthing

By 1970, homebirth, for most women and midwives, was a distant memory and midwives were entrenched in a medical and paternalistic maternity system. Mead, a Maori writer, explains the effect of this on Maori, and on Maori birthing traditions and knowledge:

Before the coming of the settlers from Great Britain and Europe children were born in accordance with Tikanga Maori. There was a knowledge base to the tikanga and there were accepted practices that were held to be correct. After Christianity was adopted by the local Maori population and after the people were colonized and shown the civilized and advanced ways of handling many things, including childbirth, the old

⁷³⁹C. Young, in Ogonowska-Coates, *Born: Midwives and Women Celebrate 100 years*, New Zealand College of Midwives, Christchurch, 2004, pp. 10,11; Ursula Helem, Midwife, personal communication, 2011; For further information: "Ursula Helem, Midwife" radio Interview with Brian Edwards, Spectrum No. 943, Radio Replay, NZ Public Radio Ltd, Wellington, Undated, c. 1990.

customs and practices were set aside. Babies were born in hospitals, and we were told what to do not only in preparation for childbirth but for the birth itself and after-care of the newborn child. By the end of the 1900s and with few exceptions we had effectively lost our tikanga in respect of childbirth.⁷⁴⁰

Maori mothers were disempowered, and with the moving of birth into hospital Maori women joined European New Zealand women in losing the ability to be with and support each other in childbirth.⁷⁴¹

Maori birthing had been invisible to the Health Department; as previously mentioned there were no statistics until the registration of deaths began in 1913, and the Health Department was much more interested in the health of the European population.⁷⁴² The vast majority of Maori birthing still took place at home in the 1930s. When awareness of Maori health problems developed in the 1920s and 30s, the hospitalisation of birth, already promoted as safer, was seen as the panacea and began to be actively promoted as the answer to their problems. Maori expertise came into question with the now visibly high Maori maternal mortality rates. Consequently, by the 1930s Maori childbirth practice wisdom, like traditional European, was becoming devalued and was being colonised by medical birthing. Maori childbirth lore was beginning to be lost. Tai Green, born 1905, a Maori woman from the Rotorua area, remembered her maternity experiences:

Doctors and nurses came to your house and you had the baby at home. It was just natural. Every village had some person that you turned to for nursing. Maori did not go to hospital to have their babies, they didn't need to.⁷⁴³

Tai described having 10 babies. She described a traditional Maori childbearing position "where the women would squat in front of their husbands and lean on their knees. In the absence of husbands, relatives, friends, or alternatively, boxes were used to lean on."⁷⁴⁴ In 1938 only seventeen percent of Maori women were having their babies in hospital, compared to eighty-seven percent for European women.⁷⁴⁵ By the 1960s 90 percent of Maori women were birthing in

⁷⁴⁰ H. Mead, 2003, *Tikanga Maori: Living by Maori Values*, Huia, Wellington, p. 287.

⁷⁴¹ A. Mikaere, 2003, *The Balance Destroyed*.

⁷⁴² For further discussion of these issues, see: D. Dow, *Safeguarding the Public Health*; R. Lange, *May the People Live*.

⁷⁴³ T. Green quoted in J. Boyd, *Daughters of the Land*, p. 79.

⁷⁴⁴ J. Boyd, *Daughters of the Land*, p. 80.

⁷⁴⁵ P. Mein Smith, *Maternity in Dispute*.

hospital; an incredibly rapid change. Hospitalisation was promoted as the panacea for all maternity ills. Harte⁷⁴⁶ interviewed twenty-four Maori women in the Bay of Islands area, one of the first places settled by the Europeans. The Maori women by the 1930s had moved birth indoors, usually by the fire. Although some of the practices had changed, having no invasive internal examinations, having family support, being able to move freely and remain upright for the birth, and the traditional care of the whenua persisted. Harte empathetically illustrates the change:

Throughout the 1930s there was constant pressure put on them [the women] to go to hospital – through churches, schools, district nurses and doctors. All of the women were told something might go wrong and they were afraid. All felt they had to go but other factors were the catalysts. Two had too many people at home, two had competent home care so they felt they could go, two had no family midwives, and six went because they wanted the painkilling drugs and modern technology. In the hospital they had no choices. Everything was done to them. [...] The glaring freezing theatres did not have the intimacy of the pre-electric homes. The women were not the centre of attention with a constant helper who massaged and rubbed when wanted. Their bodies were exposed, shaved, enema-ed. All orifices were violated. And the doctor - an unknown white male stranger – put his finger between her legs. None of the women were allowed to kneel for the birth. They lay on the bed – leg up if they were lying on their side, or legs apart if they were on their backs – and the doctor and nurses would stand there and look. And they were not allowed to keep a sheet over their bodies as they did at home.⁷⁴⁷

Worse, the placenta was taken away and burned.

Everdina Fuli recounted her grandmother's birthing story, illustrating the pressure for Maori women to birth in hospital:

In 1944 my mother, Italy Coleman, was born behind the toilet door at Waipiro Bay Hospital near Te Puia Springs on the East Coast. My grandmother could not wait and so out popped her third child. My grandmother had had her first child alone on the beach and her second son was born in the corn patch. During my grandmother's labour pains with her third child [...] my great-grandmother gathered all the money she had and placed my grandmother on a taxi destined for Waipiro Hospital. My grandmother knew exactly what to do during childbirth because of the knowledge passed on to her by the kuia of Tokomaru Bay. However, Health officials at that time advocated for Maori women to have their babies in hospital. Hence my great-grandmother's anxiety and determination to have her mokopuna delivered safely and in a hospital.⁷⁴⁸

⁷⁴⁶ H. Harte, *Maori Childbirth in the 1930s*, in L. Bryder and D. Dow, *New Countries and Old Medicine*.

⁷⁴⁷ H. Harte, *Maori Childbirth in the 1930s*, p. 364.

⁷⁴⁸ E., *Whaia e Koe te iti Kahurangi: Striving for Excellence and taking up the Challenges*, in Eds. K. Irwin, I. Ramsden, *Toi Wahine: The Worlds of Maori Women*, Penguin Books, NZ, 1995, p. 47.

The hospitalisation of birth, as described by Harte, meant the loss of women's autonomy and their ability to use their own birthing knowledge and traditions. Changes that impacted on the physiological dynamics of birth included the loss of the upright, squatting or kneeling birth positions, the introduction of invasive and culturally unacceptable interventions such as shaves and enemas, and vaginal and rectal examinations. Mikaere comments that the loss of *karakia* (incantations or prayers) was of particular concern to Maori women and the inability to follow traditional practices concerning the placenta and its disposal caused the "utmost distress".⁷⁴⁹

For Maori the transition from customary birthing to hospitalised birthing not only caused a loss of birthing wisdom and ritual, but created culturally unsafe situations for the women and their whanau. Teone Taare Tikao,⁷⁵⁰ described the important issue of the treatment of the placenta:

When a child is born to the pakeha, the doctor or nurse usually burns the placenta or afterbirth. The Maori did not do this – it would be against the mana of that child and would destroy its mauri (life principle). As the mauri of a person ceases at death, to burn a corpse did not destroy its mana, for he mauri was already gone. But burning the whenua (placenta) of a child alive is to destroy its mana – the mauri of the living child would be gone. Therefore the placenta was never burnt, but was carefully buried in the whenua (earth) and I think this is how it got its name, and by this burial the child's mauri and mana is preserved.⁷⁵¹

The birth and treatment of the placenta was of great concern to Maori, but these concerns were not recognised by the overwhelmingly pakeha institutions and their workforce until the late 1980s when the whenua began to be offered to the women and their whanau by most institutions.⁷⁵² Mikaere commented on the change in the status of women within Maori society as the *whare tangata*:

It is clear that the recognised value of the whare tangata within the overall weave of Maori life was detrimentally affected. When it came to the actual process of childbirth, however, the trampling on the tapu

⁷⁴⁹ A. Mikaere, 2003, *The Balance Destroyed*, p. 92.

⁷⁵⁰ Teone Taare Tikao was a respected *Rangitira* of *Te Waipounamu* who died in 1927.

⁷⁵¹ Tikao, T., C. Rimene, C. Hassan, J. Broughton, *Ukaipo, The place of nurturing Maori women and childbirth, Te Roopu Rangahau Maori o Ngai Tahu*, University of Otago, Dunedin, 1998, p.68.

⁷⁵² This varied in different areas; in 1986 the author was still burning placentas in Otaki, but by 1989 they were being offered back to women and their whanau.

of the *whare tangata* was no mere flow-on effect from the attack on other aspects of Maori life. It was both direct and overwhelming.⁷⁵³

One cannot but agree with this statement, and recognise that the impact of changes to their ways of birthing was both sudden and severe for Maori.

Changes in New Zealand society in its dealings with Maori were not apparent until the mid 1970s when the Treaty of Waitangi Act established the Waitangi Tribunal and The Royal Commission on Social Policy reinforced the Treaty as a living and meaningful document. In 1988 the Commission recommended the three principles inherent in the Treaty: partnership, participation and protection. Health services were early adopters of these partnership principles, changing the way they interacted with Maori.⁷⁵⁴ European women had also lost their traditional birthing wisdom and knowledge, but over a longer timeframe, and without a dramatic change to the perception of where women stood in society.

‘Midwives’ to ‘Nurses’, ‘Autonomy’ to ‘Invisibility’ ‘Women’ to ‘Patients’,

Medical care was aimed at improving statistics and women’s experience of birth was not an outcome that was perceived as important.⁷⁵⁵ By the 1950s the woman’s childbearing role was regarded as a medical process rather than a normal womanly function. Once direct entry midwifery had been phased out, and only nurses could become midwives, the nursing discipline of caring for ill people with medical supervision became reinforced within the discipline of midwifery.⁷⁵⁶ Midwives were addressed by hospital staff and patients as ‘Sister’, ‘Matron’, ‘Staff Nurse’ and ‘Nurse’.⁷⁵⁷ The invisibility of midwives in the workforce was evidenced by the absence of the word ‘midwife’ from

⁷⁵³ For discussion of these issues, see: A. Mikaere, 2003, *The Balance Destroyed*, p. 92; A. Mikaere, *Mai I te Kore ki te Ao Marama : Maori Women as Whare Tangata*, Conference Proceedings, “Seasons of Renewal: A Celebration of Birth in Aotearoa/New Zealand” New Zealand College of Midwives Conference, Cambridge, September 2000.

⁷⁵⁴ For discussion of these issues , see M. Durie, *Treaty Principles, Whaiora: Maori health development*, Oxford University Press, Auckland, 1998, pp. 84-88.

⁷⁵⁵ For further discussion on this, see: A. Oakley, *Towards a Socialization of Birth*.

⁷⁵⁶ For further discussion of this topic, see: J. Donley, *Save the Midwife*.

⁷⁵⁷ S. Pairman, *From autonomy and back again: educating midwives across a century Part 1*, *New Zealand College of Midwives Journal*, 33, October, 2005 p. 8.

⁷⁵⁷ J. Stojanovic, *Leaving your dignity at the door*, 2002.

the names of their professional body, The Nurses Association; their regulatory body, The Nursing Council; and the regulatory statute, The Nurses Act 1971, that finally legally removed midwives' autonomy.

Instead of attending the woman throughout her pregnancy, birth and postpartum period midwives worked in the antenatal clinic, nursery, or ward, or the delivery suite. They lost the skills, knowledge and confidence to oversee the whole progression of childbirth while they developed expertise in the particular area in which they worked. The confidence to work outside the hospital was lost, and midwives were indoctrinated into the segmented, techno-rational, 'medical model' perception of birth.⁷⁵⁸ The skills necessary to use the technical medical products, such as cardiotocographs and intravenous pumps, the ability of midwives to care for women with epidural anaesthetics, and intravenous drugs, and to assist with caesarean sections, became more important to hospitals than midwives' ability to be 'with women' as the word 'midwife' denotes. The transformation of the maternity system occurred gradually over decades, and was accepted by most midwives as scientific progress, inevitable, and therefore incurring little resistance.⁷⁵⁹

Women tolerated the unpalatable hospital procedures, such as enemas and the shaving of hair from the genital area, and the separation from family support, because they were told, and believed, that these were for the benefit of themselves and their babies.⁷⁶⁰ European women giving birth in Wellington in the 1950s and 60s described their maternity experiences as being characterised by the 'uncaring attitudes' of practitioners, 'loss of autonomy' and 'being alone'.⁷⁶¹ Carolyn Young, midwife, gives an example:

It was Waitakere Hospital which was a very low key sort of hospital. Anything of any complication was shipped out but the Matron was an absolute Hitler. Everyone trembled in fear. She was called "the Brigadier". There wasn't enough work so you continually had to look busy and polish things. The women I felt

⁷⁵⁸ For further discussion on this topic, see: J. Donley, *Save the Midwife*; A. Oakley, *Women Confined*; B. Katz Rothman, *Giving Birth*.

⁷⁵⁹ J. Douche, Personal Communication, 2007; For further discussion, see: A. Wassner, *A Labour of Love*.

⁷⁶⁰ For examples, see: J. Stojanovic, *Leaving your dignity*, 2002.

⁷⁶¹ For examples, see: J. Stojanovic, *Leaving your dignity at the door*, 2002.

were treated like naughty children. They were not acknowledged as adults. It was just a really miserable business. The husbands were out of the birthing room and the shaves and the enemas. It was just awful.⁷⁶²

The written consent form that the woman signed on admission to hospital gave the practitioners full control over the woman.⁷⁶³ Protesting women were given narcotic injections and they were scolded if they did not comply with instructions. They were labelled 'difficult' if they did not want aspects of routine care, and while there were caring and attentive doctors and midwives, there were also practitioners from the uncaring, and even punitive end of the spectrum.⁷⁶⁴ Gate-keeping by medical men prevented homebirth when it was requested, saying that it was no longer available, no midwives or doctors practised it, and that the woman would be more comfortable in hospital.⁷⁶⁵

Medicalised Birth and the 'Swing back to Nature'

Midwives were now being taught by doctors, and many midwives also held nursing registration and brought a nursing perspective into the hospital and the classroom.⁷⁶⁶ Over time, most midwives accepted the hospital policies and routines without question. Women came to be perceived as 'patients' who were to receive care as dictated by the medical team. Despite increasing resistance by consumer groups such as Parents Centre from the 1950s, and the women's movements that began to rise in the 1960s and 70s, any ability to change the paternalistic techno-rational medical model of maternity with its increasing birth interventions was minimal.⁷⁶⁷

⁷⁶² C. Young, in Ogonowska-Coates, *Born*, pp. 10, 11.

⁷⁶³ Until the 1990s⁷⁶³ there was no legislative pressure on practitioners to ensure that women were able to make informed choices about their care. The Code of Health and Disability Consumers' Rights Regulations 1996 followed the passing of The Health and Disability Commissioner Act 1994. Although there were avenues to sue for assault earlier 'patients' were often unaware and vulnerable. They generally accepted that the practitioners were the experts and that any treatment was in their best interests.

⁷⁶⁴ For further example, see J. Stojanovic: *Leaving Your Dignity*, 2002; S. Kedgley, *Mum's the Word*.

⁷⁶⁵ J. Stojanovic, Personal experience of requesting a home birth, 1965.

⁷⁶⁶ J. Stojanovic, *Midwifery in New Zealand 1900 – 1971*.

⁷⁶⁷ For further discussion, see: J. Donley, *Herstory*. M. Dobbie, *The Trouble with Women*; M. Banks, *Out on a Limb*; M. Banks, *Homebirth Bound*; K. Guilliland, S. Pairman, *Women's Business*.

By the late 1970s, however, there was a surge of literature questioning the medicalised nature of childbirth. In New Zealand Helen Brew of Parent's Centre made a documentary on childbirth, *Birth with R.D. Laing*, in 1976 at the Wellington St Helens. At the time anxiety was expressed by both the doctors and the midwives about the motives for the film. They were aware that Brew was against medicalised birth and were concerned about how they would be depicted.⁷⁶⁸ Laing was a Scottish psychiatrist who believed that the emotional needs of infants were not being met by the medicalised birthing system.⁷⁶⁹ Contemporary literature questioning the status quo and suggesting other ways of birthing included Arm's *Immaculate Deception*, Leboyer's *Birth without Violence* in 1975, Illich's *Medical Nemesis* in 1976, and Gaskin's *Spiritual Midwifery* in 1979. The literature supporting alternatives to the techno-rational medicalised paradigm of birth was reflective of dissatisfaction with the maternity system and of alternative ideas surfacing in the community.

'Responsible Subversion'

Midwives in hospitals were also questioning some of the medical mores, such as not allowing the baby's father to be present at the birth, routine practices such as genital shaving, and in St Helens Hospital, Wellington, and in Wellington Public Hospital, the routine administration of sedatives to women, routine episiotomies for all women having first babies, and all women having to birth in the lithotomy position - on their backs with their legs in stirrups. Most of these practices were dictated by the medical preferences of the senior doctors. According to Stimpson,⁷⁷⁰ the 'left lateral' position was the norm at National Women's Hospital in Auckland, and episiotomy was never 'routine' there. In Wellington, and in some other hospitals, 'responsible subversion'⁷⁷¹ began to occur with midwives not managing to call particular doctors in time for birth so that the

⁷⁶⁸ Personal Experience, St Helens Hospital, Wellington, 1976.

⁷⁶⁹ For further discussion, see: M. Dobbie, *The Trouble with Women*.

⁷⁷⁰ G. Stimpson, Oral History Audiotape.

⁷⁷¹ For further discussion of responsible subversion, see: S. Hutchinson, S., Responsible Subversion: A Study of Rule-Bending Among Nurses, *Research and Theory for Nurses*, Vol. 4, No. 1, 1990, pp. 3-17.

woman would not have to have an episiotomy, persuading the women to 'refuse' sedation, pretending not to recognise the onset of the 'pushing stage' so that the woman would not be taken to 'theatre' and could remain in the labour room to have her baby with her partner present.

Responsible subversion in action is illustrated by the story of how the genital shave became a 'keyhole' shave at Wellington St Helens. By 1980 no shave was being done. Because the shaved area had been slowly reduced to a minimum over time, the doctors did not notice, and were never told, that shaving had ceased.⁷⁷²

Some midwives also dimmed lights in delivery rooms and introduced Leboyer methods to the women and to the doctors. The one thing that was not subject to change was the birth of the placenta. The medical treatment of the third stage of labour remained inviolate, almost invisible, within the hospitals; a technique considered 'normal', absolutely necessary and not open to question until after the 1980s.

Heather Woodfield gave examples of the responsible subversion that she and other midwives practised in the 1980s in Palmerston North. After the law changed and Heather worked as an independent midwife she often faced hostility from the hospital employed (core) midwives when she varied from the hospital routines. She would call a like-minded midwife for backup at the birth rather than a core midwife because their attitudes could change the birthing dynamics for the women and her family.⁷⁷³ Horizontal violence was an issue for midwives in that era, and the management of the birth of the placenta frequently the focus of such issues.⁷⁷⁴

Most of the doctors, apart from pointing out that they couldn't work in the dark, coped quite well with innovations as long as they believed the women had requested the change, which sometimes was the case. Some doctors could not cope, and when hospital policy changed to allow partners at

⁷⁷² Personal experience, St Helens Hospital, Wellington, 1976 – 1980.

⁷⁷³ H. Woodfield, Oral History Audiotape, October, 2007.

⁷⁷⁴ For more discussion on this topic, access: H. Woodfield, Oral History Audiotape; J. Stojanovic, Oral History Audiotape.

the birth some retired from practice.⁷⁷⁵ That midwives needed to become subversive is a measure of their general inability to effect change, and of the institutional constraints that were put on midwifery practice.

Although in the 1960s women had been encouraged to walk during the first stage of labour, by the 1970s women were lying down with cardiotocographs attached to them to monitor the baby's heartbeat in the mistaken belief that this would prevent cerebral palsy in babies.⁷⁷⁶ Daylight obstetrics had arrived with women being induced to suit their doctors' needs or the woman's request. Despite some cosmetic changes, much of this style of care continued over the next decades. Women had begun looking for alternatives from the 1950s.⁷⁷⁷ The idea that women should move freely during both first and second stage was totally contrary to the obstetric worldview of the time. Women began to demand more choice of position and wanted to have their baby with them and breastfeeding freely. To achieve this more women began requesting homebirths. It was a way of regaining control over their birthing.⁷⁷⁸

Homebirth's Rebirth

Early mother-baby contact and breastfeeding, and choosing positions for birth are instinctive behaviours that occur more readily in women who birth at home. These, and other factors such as privacy, lighting, and music, are controlled by the woman and contribute to the optimisation of physiological birth.⁷⁷⁹ However in the 1970s and 1980s, most midwives were also nurses. They had been educated in the medical techno-rational hospital environment. It took some years for many midwives to discover and internalise the benefits of physiological birth; some never did. Midwives had to 'unlearn' the medical mantra "birth is only normal in retrospect" that they had been taught. They had to learn to trust in the ability of women to give birth and learn how to relax and be confident around the woman and her family. When women were strong, confident and

⁷⁷⁵ Personal experience as a Charge Midwife, Delivery Suite, St Helens Hospital, Wellington, 1976 – 1980.

⁷⁷⁶ Examples are discussed in A. Wassner, *Labour of Love*; M. Banks, *Homebirth Bound*.

⁷⁷⁷ For further discussion of this, see: M. Dobbie, *The Trouble with Women*.

⁷⁷⁸ For further discussion, see: M. Dobbie, *The Trouble with Women*; J. Donley, *Herstory*;

⁷⁷⁹ For further discussion, see: M. Banks, *Homebirth Bound*; M. Banks, *Out on a Limb*.

determined to birth naturally they empowered their midwives, and their midwives learned to trust birth. In the meantime they had to learn how to allow the woman to birth her baby, and then her placenta, without midwifery 'control'. Until the Nurses Amendment Act 1990 doctors provided the antenatal care for women who wanted homebirths. Arranging a midwife to do a homebirth, and finding a doctor who would support homebirth was difficult.⁷⁸⁰ However, the demand for homebirth was always greater than acknowledged, according to a submission to the 1960 Commission of Inquiry into Maternity Services by Margaret Hales, a New Plymouth midwife.⁷⁸¹

During the 1970s some midwives, in response to demand, were providing homebirth services. It was a very brave move, in a punitive environment for both the midwives concerned and the doctors who backed them, at a time where under the law a pregnant woman had to be under the supervision of a doctor. If a woman was able to organise a midwife, many doctors put obstacles in the way of her achieving her goal. Because the doctor had eight or nine months in which to persuade the woman that homebirth was unsafe or to find a 'risk' factor that would indicate that hospitalisation was necessary,⁷⁸² there were many conflicts of opinion between midwives and doctors, with the woman between them. The midwives, women, and doctors who believed that physiological birth had benefits for mothers, babies, and society had to overcome disapproval and obstacles stemming from a medicalised society still entrenched in a techno-rational paradigm, but they also had to face their own fears and anxieties as they ventured into the unknown.⁷⁸³

While midwives could claim payment from the Health Department as per the provisions of the Social Security Act 1938, the payment was set at 1938 levels and there was no interest in increasing payment to midwives for a service disapproved of by the medically managed Department. Nevertheless, certainly from the 1970s homebirth was increasingly being offered in

⁷⁸⁰ J. Johnson, Oral History Audiotape

⁷⁸¹ J. Donley, *Save the Midwife*.

⁷⁸² What was actually a 'serious risk' was often in question. For example, fit healthy women over thirty were often told they were 'elderly' and should birth in hospital.

⁷⁸³ For further discussion of these issues, see: J. Donley, *Herstory of N.Z. Homebirth Association*, NZ Homebirth Association, Wellington, 1992. M. Banks, *Out on a limb*; M. Banks, *Homebirth Bound*; H. Ogonowska-Coates, *Born*.

some cities in New Zealand, notably Auckland and Wellington, Christchurch, and Palmerston North.

When the Auckland Homebirth Association was founded in 1978, part of its role was to provide practical support for domiciliary midwives and lobby for improved payment for midwives and political support for homebirth.⁷⁸⁴ Maternity care is paid for through the Ministry of Health (previously the Health Department). It was, and still is, illegal for midwives or General Practitioners (GPs) to ask their clients for additional payment.⁷⁸⁵ To help their midwives to survive many clients paid extra 'in kind': husbands mended cars or performed home repairs, families gave food to midwives and provided their equipment so that the homebirth midwives could live on their meagre earnings.⁷⁸⁶

Nursing and Medical Resistance

Resistance from the powerful medical fraternity, and from nurses, was inevitable. These two groups strongly believed that homebirth was dangerous despite much evidence to the contrary. Homebirth was attacked with negative publicity; stand-over tactics were used against doctors who supported midwives, and some women were threatened that if they had a homebirth they would not be welcome to return to their General Practitioner.

On the political front, in October 1979 The Health Department's Maternity Services Committee published a paper entitled 'Obstetrics and the winds of change' expressing the medical and nursing professions' discomfort with the demands that were coming from consumers and the changes that were occurring, especially the move toward homebirths. The New Zealand Nurses Association (NZNA), which included a 'Midwives Section', supported hospital birth with changes to make it more palatable for women and for midwives. The New Zealand Medical Association

⁷⁸⁴ For further discussion of these issues, see: J. Donley, *Herstory*; M. Banks, *Out on a limb*.

⁷⁸⁵ The only women who could be charged were those not eligible for government funding, some non-residents.

⁷⁸⁶ For examples see C. Young, in H. Ogonowska-Coates, *Born*, pp. 10 – 16; J. Johnson, Oral History Audiotape.

(NZMA) and the NZNA had views and policies that were in direct opposition to consumer and midwives' demand for increased control of birthing.⁷⁸⁷

In 1981 the New Zealand Homebirth Association was established. The wrangling between medicine, nursing and the domiciliary midwives continued. In 1983 the Nurses Amendment Bill attempted to give more power to nurses and doctors, remove the ability of 'direct entry' midwives⁷⁸⁸ to work as a midwife who were not registered general nurses, and give the Medical Officer of Health power to suspend a midwife on suspicion of unhygienic practice. These measures were softened in the actual Act but midwives became aware of their inability to influence change from within the NZNA. In 1986 the idea of setting up a separate professional body for midwives was mooted. This idea came to fruition in 1989 with the establishment of the New Zealand College of Midwives (NZCOM).⁷⁸⁹

Women Need Midwives Need Women

Recognising that midwifery gained support and strength from consumers, and that women wanting an alternative to hospital birth required strong and independent midwives, NZCOM was established with consumer participation at both membership and executive level. The watchwords were 'women need midwives need women'. They immediately set to work establishing a *Code of Ethics and Standards for Practice* as a way of demonstrating professionalism. A favourable political climate, a sympathetic woman Minister of Health, Helen Clark, and the activism of midwives that included Joan Donley, Karen Guilliland, Bronwyn Pelvin, Sally Pairman, and many others, and lobbying by both midwives and women's groups resulted in the passing of the Nurses Amendment Act 1990.

The Act not only returned professional autonomy to midwives but armed them with tools to practice, and allowed them to be paid on a par with GPs who practiced maternity. These 'tools' included the ability to access hospitals to attend women, the ability to order diagnostic tests

⁷⁸⁷ For further analysis of this political history see: J. Donley, *Herstory*; J. Donley, *Save the Midwife*; M. Banks, *Out on a limb*; M. Dobbie, *The Trouble with Women*; K. Guilliland and S. Pairman; NZCOM, Centenary Timeline, *Midwifery News*, Vol. 35, 2004, pp. 9 – 16.

⁷⁸⁸ Midwives who do not also hold a nursing qualification.

⁷⁸⁹ K. Guilliland, S. Pairman, *Women's Business*.

including blood tests and ultrasound, the ability to directly refer women for specialist consultation, and the ability to prescribe drugs that were required to effectively care for maternity clients. The prescribing rights granted included antibiotics with which to treat urinary tract and breast infections, intravenous fluids, and uterotonic drugs with which to actively manage placental birth or to treat PPH. These measures required amendments to many different Acts and Regulations.

Midwives had regained their autonomy to an extent but were still regulated by the Nursing Council. It was not until the passing of the Health Practitioners Competence Assurance Act 2003 that midwifery was to become totally autonomous as a health profession with the establishment, in 2004, of the Midwifery Council of New Zealand. The ongoing political challenges from medicine that were to be overcome by midwifery in the decade following 1990 are interesting, but are not relevant to this thesis.⁷⁹⁰ The ability of health care consumers to legally choose their care is, however, important to this thesis therefore the next section will outline how the rights enjoyed by New Zealand women, to refuse medical treatments and to exercise informed choice in their care, eventuated in the 1990s.

The Ability to Choose

This section of the chapter examines the ramifications of women being able to choose to birth differently. Apart from the enabling philosophical and ethical professional stance of New Zealand midwifery, women and midwives in Aotearoa New Zealand have basic rights that underpin their ability to provide, and use, alternative birthing options. These have arisen from the legal framework in which health care operates in Aotearoa New Zealand. There is a raft of legalities that support women to choose how and where they birth. Firstly, homebirth has never been illegal although there is an imperative to provide medical or midwifery care, if required, in the Crimes Act 1961 which states that every person is:

⁷⁹⁰ For further discussion on the political history of midwifery see, New Zealand College of Midwives, Centenary Timeline; M. Dobbie, *The Trouble with Women*; M. Banks, *Out on a Limb*; J. Donley, *Save the Midwife*; J. Donley, *Herstory*.

Under a legal duty to supply that person with the necessaries of life, and is criminally responsible for omitting without lawful excuse to perform such duty if the death of that person is caused, or his life is endangered or his health permanently injured by such omission.⁷⁹¹

Secondly, the New Zealand Bill of Rights Act gives all people the right to refuse any medical treatment.⁷⁹² Thirdly, the Health and Disability Commissioner Act 1994, enacted following what was called “an unfortunate incident” involving research on health consumers at National Womens Hospital, gives women the right to make informed choices. The Cartwright Enquiry⁷⁹³ which ensued from the incident lessened the public’s view of doctors as absolute experts to be trusted, and had some impact when midwives sought to regain their autonomy. The Enquiry established the need for health and disability consumers to be informed about their options for care in a manner that would empower them. To achieve this aim the Code of Health and Disability Consumers’ Rights was made by regulation in 1996. The clauses that are of importance to the current study include ‘Right Six: The right to be fully informed’, and ‘Right Seven: The right to make an informed choice and give informed consent’.⁷⁹⁴

The legally established right for women to choose their care means that, for instance, a hospital protocol that states that all women will have an actively managed third stage of labour, can be over-ridden if, having been given a reasonable amount of information explaining the benefits and the drawbacks, the woman refuses to follow the protocol and requests a physiological placental birth. Documentation showing that reasonably balanced information was provided protects the attending midwife or doctor from complaint.⁷⁹⁵

⁷⁹¹ Crimes Act 1961, Section 151, accessed 26th May, 2011, at <http://www.legislation.govt.nz/act/searchquick.aspx>

⁷⁹² The New Zealand Bill of Rights Act, Section 11, accessed 26th May, 2011, at <http://www.legislation.govt.nz/act/searchquick.aspx>

⁷⁹³ See, NZCOM, Centenary Timeline; The publicity surrounding the Cartwright Enquiry had shaken the public’s belief that doctors were infallible that contributed to the political climate that facilitated the passing of the Nurses Amendment Act 1990.

⁷⁹⁴ The New Zealand Code of Health and Disability Consumers’ Rights can be accessed at <http://www.hdc.org.nz/the-act--code/the-code-of-rights> accessed 31st May, 2011.

⁷⁹⁵ For discussion of some of the issues around informed consent for midwives, read: J. Pearce, Informed Consent – Issues for Midwives, *New Zealand College of Midwives Journal*, Vol. 19, 1998, pp. 22 – 24; V. Levy, Facilitating and Making Informed Choices During Pregnancy: A Study of Midwives and Pregnant Women, Unpublished Doctoral Thesis, Department of Nursing, UK, 1997.

There were examples of responsible subversion, with several midwives not following hospital protocols, occurring prior to the legislative changes that supported consumer choice. These midwives did not practise active management in the absence of the doctor. They had been taught the older, patient, method of waiting for the placenta and saw no reason to employ active management. There was, particularly for one midwife, a fear of cord traction as she had been exposed to a woman suffering an inverted uterus during her training as a midwife.⁷⁹⁶ The other midwife simply preferred the way she had been taught, finding it gentler for the woman.⁷⁹⁷ Both disregarded protocols that were usually medically dictated, and were seldom reviewed.⁷⁹⁸ Their choices of action were dictated, not by consumer choice or medical instruction, but by their personal preferences and ideas of 'safety'.

Alternative Birthing

By the late 1980s more midwives were offering homebirth. The establishment of the College of Midwives in 1989 brought with it an acceptance, although slow in some quarters, of the legitimacy of alternative birthing. The 1990 Act meant that midwives were able to offer alternatives to women even within the hospital setting as they were not bound by the legislation to follow hospital clinical protocols. The demand for alternative birthing was there. Writers such as Odent, Balaskas, Kitzinger, Gaskin, Katz Rothman, Donley, and activists such as Beverly Beech⁷⁹⁹ of the British Association for Improvement to Maternity (AIMS) and Marsden Wagner⁸⁰⁰ of the World Health Organisation (WHO) who was keynote speaker at the NZCOM's first conference in 1990, were having an impact on both consumers and midwives.

⁷⁹⁶ B. McHugo, Oral History Audiotape, July, 2008.

⁷⁹⁷ Lillian, Oral History Audiotape, July, 2008.

⁷⁹⁸ Hospital protocols and policies, and clinical guidelines are now reviewed frequently in most hospitals, and must be evidence based. At issue now is the choice of evidence as for many doctors only randomized controlled trials are considered noteworthy, despite the availability of other high quality evidence.

⁷⁹⁹ B. Beech, Audiotape of radio interview with B. Edwards, Author's personal collection, undated, c. 1990.

⁸⁰⁰ M. Wagner, *Pursuing the birth machine: the search for appropriate birth technology*, Ace Graphics, Australia, 1994.

Birthing the Placenta and Upright Birth

Gaskin used a mixture of techniques for the birth of the placenta:

Just after the baby is expelled from the mother's body, one of your assistants should feel the top of the uterus to make sure that it is keeping its tone. The husband or an assistant can be stimulating the mother's breasts and nipples, as this helps to stimulate uterine contractions. (Stimulation of the breasts causes a powerful endocrine hormone called oxytocin to be released. Oxytocin in turn stimulates uterine contractions). [...] **Don't try to get the placenta out by pulling on the cord.** It often helps in the delivery of the placenta if the mother is supported in a squatting position while she pushes it out.⁸⁰¹ [Emphasis in original]

While Gaskin did recommend lying the mother back down after the birth of the placenta, and did not give the baby to the mother immediately, it must be remembered that her book was written at a time when many women in the industrialised world, including New Zealand, were lying supine throughout the birth, and husbands or support people were not allowed to be in attendance. There were reports, at that time, of women in the United States of America who were not only lying on their back, usually with their legs up in 'stirrups' in the lithotomy position, as they were in some hospitals in New Zealand, but who also had their hands strapped to the bed so that they were totally helpless.⁸⁰²

Balaskas first published her book in 1983. It had a tremendous impact on birthing in New Zealand, even more than Gaskin's as *Spiritual Midwifery* was too radical for many women and midwives to cope with. Balaskas' book made sense. Being able to move to facilitate birth in both first and second stage was, at that time, unheard of in New Zealand hospitals, although walking in the early stages of labour, and hands and knees on the bed in first stage labour had not been uncommon. In the section on the third stage of labour Balaskas wrote:

After the birth your baby will be in your arms. The rush of emotion you will feel will cause the secretion of hormones in your body which, after a while, will cause your uterus to contract and the placenta to separate from the wall of the uterus. Nature has designed the process to take place quite automatically. As your baby comes into contact with the breast or sucks on the nipple this causes the uterus to contract strongly. Meanwhile your baby begins to breathe independently through the lungs and after 10 to 15 minutes (if not sooner) breathing will be fully established and the umbilical cord will have stopped pulsating. [...] The third stage should not be rushed. Artificial stimulants (ergometrine or syntometrine) are not generally necessary

⁸⁰¹ I. Gaskin, *Spiritual Midwifery*, p. 363.

⁸⁰² This is also mentioned in M. Dobbie, *The Trouble with Women*.

after active birth if the mother has given birth in an upright position. These were invented for situations where the mother has been lying down and has had an epidural, or other anaesthetic, which reduces the ability of the uterus to contract spontaneously; in the unusual case of excessive bleeding; or when mother and baby are separated at birth and the normal hormonal balance is disturbed.

After the birth the suckling of the baby will stimulate the uterus to contract and expel the placenta. This usually occurs within the first hour after the birth but can sometimes take longer.⁸⁰³

Learning and Acceptance of a New Paradigm

In hospital the norm for the birth of the placenta was still active management but by the late 1980s a number of women were requesting delayed cord clamping. It seemed obvious to many women that the blood in the cord belonged to the baby. In a natural situation the baby would receive it, so why would we prevent the baby receiving its natural entitlement.

Delayed cord clamping, getting the baby to breastfeed and withholding the uterotonic injection, unless haemorrhage occurred, were standard practices at homebirth. Clamping and cutting the cord, usually after it stopped pulsating, watching for signs of placental separation before asking the woman to squat or use maternal effort or gentle cord traction to expel the placenta were common homebirth techniques for placental birth.⁸⁰⁴ Many midwives were uncomfortable not using active management, or at least elements of active management, at homebirths, which explains Ruth's whispered story in the preface to this thesis.⁸⁰⁵ Slowly over the 1980s and especially in the 1990s increasing numbers of midwives unlearned their old habits and learned, from women and other midwives, and from research articles such as those of Botha,⁸⁰⁶ and Odent, and later Buckley's work, that less is more (on the part of the midwife) when it comes to true physiological birth of the placenta.

Women who strongly believed in their ability to birth naturally had a huge impact on midwives who were still coming to terms with 'letting go' of hospital mores. Women taught midwives about natural birth. The premise that 'strong women make strong midwives' was proven in practice, but

⁸⁰³ J. Balaskas, *Active Birth*, 1986, pp. 97 - 99.

⁸⁰⁴ For examples, see: Auckland Homebirth Association, Welcome Home Birth Video.

⁸⁰⁵ R. Martis, personal communication 2009.

⁸⁰⁶ M. Botha, The management of the umbilical cord in labour.

the stress of attending births where the women were in control and would not accommodate midwives' notions of correct procedure, particularly when the medically established time-frames for labour were exceeded, took its toll on midwives.⁸⁰⁷ The fear of horizontal violence, and complaints being laid by hospital staff when a woman was transferred, especially after a long labour, was, and sometimes still is, a very real stressor for homebirth midwives.

Physiological Placental Birth and Research

Although the frequency of 'physiological management' is increasing, true holistic physiological placental birth is still not always the method in use in New Zealand. Many midwives watch anxiously for signs of separation, twitching the umbilical cord to see if the placenta has separated. Anxiety grows as time ticks on and the placenta has not come. When the 'magic', but as shown in the previous chapter, quite arbitrary, time of one hour after the birth of the baby arrives, anxiety escalates. The result can be transfer to hospital or intervention using an ecboic and controlled cord traction, or even a PPH. It is important that practitioners learn the value of being relaxed and confident during placental birth. When the placenta does not come quickly midwifery actions, including walking the woman to the toilet, are executed in a relaxed, unhurried manner.

Summary

The medicalisation and hospitalisation of birth particularly for Maori, has been further examined in this chapter. It outlined how the medicalisation and nursification of midwifery knowledge and practice resulted in the loss of traditional midwifery knowledge for both Maori and Pakeha. Midwives became increasingly invisible as they were integrated into the techno-rational world of hospital dominated and controlled by medicine and nursing.

Efforts to change practice for the benefit of women were made by midwives using responsible subversion, demonstrating the institutional constraints of the health system prior to 1990. Women had become patients to be controlled, treated and nursed. Pregnancy and birth had come to be perceived as disease states. Consumer demand for change enabled a small group of midwives to return to domiciliary practice and begin to rediscover normal birthing. Over the next decades

⁸⁰⁷ For examples, see: H. Ogonowska-Coates, *Born*.

increasing numbers of women and midwives utilised physiological birthing as a preferred option, an option that they came to consider healthier and safer than the medical alternative.

Midwives practising alternative birthing had needed to unlearn their medicalised training and regain their trust in women's ability to birth. The reintroduction of midwifery autonomy, and the passing of legislation concerning consumer choice and consent in health care facilitated the introduction of alternative midwifery practices into hospitals, exposing more midwives and doctors to physiological placental birth.

It took time for the interviewed midwives to learn the necessary skills. Exposure to physiological birth, particularly with an experienced colleague who is comfortable with it is the ideal way to learn, however, this is not always possible. The theoretical model will be a useful tool for teaching practitioners the skills of facilitating physiological placental birth. It could be used in a workshop setting or at a more personal level.

The criteria are simple and evidence informed but discussion with the woman and her family to ensure that interruptions and distractions are minimised during the labour and birth, and that other criteria are met is helpful to maximise the benefits.

The next chapter will discuss the perceptions and experiences of practitioners as expressed in the oral history interviews, and their experiences with managing placental birth. Chapter Nine gives an overview of the midwifery and medical experiences and opinions that were expressed by the participants. Practitioners' ideas and thoughts about the management of placental birth and their experiences with it are the main focus of the chapter which focuses on data from the oral histories, four from medical practitioners, and twenty from midwives, including the researcher.

Chapter Ten presents the conclusions arrived at from the current research. It reflects on, and discusses the findings and their implications for midwifery practice. The Bibliography and the Appendices complete the Thesis.

Chapter Nine: Practitioners' Perspectives on Placental Birth

Introduction

This chapter focuses on the midwifery and medical experiences and opinions that were expressed by the participants in the present study. These are measured against the theoretical model.

The first section relates to the demographics of the participants, the following sections examine the answers to the interview questions, followed by interview data that was extraneous to the interview guideline but relevant to the current study. Practitioners' ideas and thoughts about the management of placental birth and their experiences with it are the main focus of the chapter. Themes that were identified from the commonalities and differences in the oral data are identified and analysed, constituting the last section of the chapter.

I have described the medical practitioners quite fully, partly to show their level of experience and also as an aid to understanding of some of the influences upon their practices. The midwives are not all described equally. Some were well known as active and expert in various midwifery fields, but all are experienced midwives who have proven their worth over decades. I have described their differing levels of experience and education to show their range of knowledge and practice.

The demographics profiles of the participants have been placed in this chapter to make access to them easier. Because of the thesis structure it was considered more appropriate than requiring the reader to refer to them in the methodological chapter, Chapter Two.

Practitioners' voices

Four medical practitioners and twenty midwives (including the researcher) participated in the research; all of the doctors and fifteen of the midwives were New Zealand born, four were from Britain and one from Germany. All but one midwife, Brenda McHugo, had registered as nurses prior to qualifying as midwives. Eight of the midwives and three of the four doctors were known to have had maternity experience in other countries including Britain, Australia, Germany, Holland, Denmark, Vanuatu, South East Asia, Fiji and Samoa.

The midwifery qualifications were mostly from New Zealand, but five had qualifications from Britain, and two had qualified in Australia. Midwifery registration dates ranged from the mid 1940s until 1992. There were no midwives in the study who had qualified as midwives in the 1950s although nursing qualifications had been attained in that decade.

All of the doctors had qualified as doctors in New Zealand although both Graeme Sharp and Ken Clarke had gained surgical or obstetric specialist qualifications in Britain, at a time when study for an obstetric fellowship was not available in New Zealand. Three are obstetricians, Kenneth (Ken) Clark, Digby Ngan Kee, and retired obstetrician, Graeme Sharp. One is a retired general practitioner (GP), James (Jim) Hefford.

Jim Hefford had attended at least one homebirth. Digby Ngan Kee's experience had all been hospital based. Ken Clark had never attended a homebirth. Four of the midwives had never attended homebirths, their experience being totally limited to hospital midwifery. Two of the participants, Dr. Maggie Banks and Jenny Johnstone limited their practices by becoming strictly homebirth midwives, but all of the midwives had hospital experience.

The midwives were invited to participate because of their range of experience, but some were also invited because of their particular areas of knowledge. For example, Norma Campbell is the Midwifery Advisor to the New Zealand College of Midwives (NZCOM) and has knowledge of New Zealand practice issues.⁸⁰⁸

Dr. Chris Hendry is the CEO of the Midwifery Maternity Provider Organisation that created the database for New Zealand Midwives.⁸⁰⁹ That database enabled the New Zealand midwifery data collection that was used in the NZCOM research to show good outcomes for normal healthy New Zealand women birthing their placentas physiologically.⁸¹⁰ Chris is also an international midwifery consultant.

⁸⁰⁸ N. Campbell, Oral History Audiotape, Christchurch, February, 2008.

⁸⁰⁹ C. Hendry, Oral History Audiotape, Christchurch, February, 2008.

⁸¹⁰ New Zealand College of Midwives; *Third stage management practices of midwife lead maternity carers.*

Mina Timutimu is the treasured *kaumatua* of the NZCOM who advises and guides its members in Maori matters, and is known for her *aroha*, tolerance, gentleness and generosity of spirit. She, and her family welcomed the researcher onto her *Marae* at Waitara, and into her family home, sharing their *tikanga* and experiences freely.⁸¹¹

Maggie Banks and Jenny Johnston, both strong homebirth proponents, were invited because of their well known perspectives on birth as safe and normal, and for their courageous advocacy of women's rights to choose to homebirth, and of midwives' rights to practice autonomously. Jenny Johnston was an early pioneer of homebirth and has practised as a homebirth midwife in urban and isolated rural areas.⁸¹² Maggie Banks, homebirth midwife, is the author of *Homebirth Bound: Mending the Broken Weave*, and *Breech Birth Women-wise*. She is a respected midwifery educator and is internationally recognised for her expertise in breech birth.⁸¹³

Glenda Stimpson is very well known in New Zealand Midwifery circles as a strong advocate for midwifery with many years experience in tertiary care at National Women's Hospital. She was invited to participate in her capacity as an expert in hospital birth. She practised alongside influential obstetric academics that included Professors Bonham, Green, and Seddon.⁸¹⁴ Both Dawn Holland and Glenda Stimpson were closely associated with Joan Donley, midwifery activist, and the author of *Save the Midwife*. Dawn Holland was also involved with the establishment of the New Zealand College of Midwives,⁸¹⁵ and has been a LMC since 1992 and a midwifery lecturer at the Auckland University of Technology. She maintains a small caseload but tends to limit her clients to those who intend birthing at home or in a primary maternity unit.

⁸¹¹ M. Timutimu, Oral History Audiotape, Waitara, September, 2008.

⁸¹² J. Johnston, Oral History Audiotape, Tirau, November, 2008.

⁸¹³ M. Banks, Oral History Audiotape.

⁸¹⁴ G. Stimpson, Oral History Audiotape, Auckland, November, 2008.

⁸¹⁵ D. Holland, Oral History Audiotape, Auckland, November, 2008.

Elizabeth Jull was my midwifery partner in establishing a midwife led birthing centre in Otaki where, along with providing hospital and homebirth care to our clients, our skills with physiological birth were able to be developed in an environment free of the ‘medical gaze.’⁸¹⁶ She has worked as a Lead Maternity Carer (LMC) in Otaki and Horowhenua since the early 1990s, been an active member of the NZ College of midwives, particularly in the realm of regulation as a midwifery standards reviewer and member of the Midwifery Council’s Professional Conduct Committee. Elizabeth experienced physiological placental birth with her fourth child and is a proponent of physiological birth and homebirth.

Heather Woodfield worked for years in Palmerston North Hospital as an employed midwife, but has worked as a LMC midwife since the early 1990s. Heather has long been a supporter of delayed cord clamping, commenting that it is “common sense”.⁸¹⁷

The researcher, also a research participant, and currently the Charge Midwife of a small rural maternity facility, has had experience of primary, secondary and tertiary hospital environments, and home birth. I was totally immersed in obstetrics from my 1960s nursing student days. With experience as an obstetric nurse and as a neonatal nurse prior to becoming a midwife in 1976, I worked as a Delivery Suite Charge Midwife and then as a Supervisor in charge of a tertiary hospital at night. It wasn’t until I began to care for women in the rural, primary maternity setting that I understood that what I had seen in hospital was not typical of normal birthing. Puer-suaded to care for women at home, I became convinced of the benefits of homebirth and of the importance of midwives and women having confidence in birthing process.

All of the midwives are recognised as highly experienced and knowledgeable practitioners. Many of the participants were foundation members of the New Zealand College of Midwives.

⁸¹⁶ E. Jull, Oral History Audiotape, Otaki, October, 2007; E. Jull and J. Stojanovic, Otaki Birthing Centre; For a discussion on medical power and midwifery, see: K. Fahy, Power and the social construction of birth territory, in K. Fahy, M. Foureur, C. Hastie, Eds., *Birth Territory and Midwifery Guardianship*: Butterworth Heinemann Elsevier, Sydney, 2008, pp. 6-9.

⁸¹⁷ H. Woodfield, Oral History Audiotape, Palmerston North, October, 2007.

At least six have postgraduate qualifications and have also been involved in midwifery education. Five have now retired from active midwifery practice, one, an interested and caring midwife and educator, Jan Warren, has died. Jan Warren worked as a midwifery educator in Palmerston North and later as a LMC in Horowhenua and the Manawatu. She worked in Samoa when she stopped working as a LMC and later worked as a hospital midwife in Masterton.⁸¹⁸

Margaret Wilton and Cherrill Suckling,⁸¹⁹ work as 'core midwives' in Palmerston North Hospital, a secondary maternity unit that also caters for primary birth. Both are very experienced in secondary and primary maternity care, Margaret is comfortable using physiological management for placental birth, Cherril is less comfortable but would use it if requested. Both are expert and confident in active management which they noted as being less hurried than in the past.

Three of the twenty midwives, Lilian, Lucy, and Marama (pseudonyms), elected to maintain their anonymity. They have placed conditions on access to their audiotapes which are currently accessible only with their permission, but will be freely available to future generations of researchers.⁸²⁰ Lilian is a highly experienced English midwife who has worked in a variety of hospital settings in New Zealand, and in Fiji, but the last twenty years of her career were spent working in a rural primary maternity unit. Lilian's experiences of homebirth in poor conditions in England in the late 1940s and early 1950s left her with a preference for hospital birth.⁸²¹

Lucy, an LMC midwife in a mixed urban and rural area is passionate about her practice and the wellbeing of the women she cares for. She is a strong advocate for physiological placental birth believing it to be better for mother and baby but has felt under pressure from the hospital

⁸¹⁸ J. Warren, Oral History Audiotape,

⁸¹⁹ M. Wilton, Oral History Audiotape, Levin, November, 2007; C. Suckling, Oral History Audiotape, Palmerston North, October, 2007.

⁸²⁰ Lilian, Oral History Audiotape; Lucy, Oral History Audiotape, Palmerston North, 2007; Marama, Oral History Audiotape Palmerston North, July, 2008.

⁸²¹ Lilian, Oral History Audiotape.

establishment to use active management. She has used physiological placental birthing since the early 1990s.⁸²²

Marama is an experienced midwife who has worked in hospital and homebirth, and in Europe and the Pacific. Her first homebirth was in 1982 and she remembered being pointed out in the hospital cafeteria as “*that* midwife”.⁸²³ Her preference is for homebirth but she currently works in hospital. She is very aware of women’s right to control their birthing, and, like most of these midwives is an active member of the New Zealand College of Midwives.

Irene Calvert and Mary Garlick,⁸²⁴ are two English midwives who have spent their working lives in Aotearoa New Zealand, working as both hospital midwives and as LMCs. Irene gained her midwifery qualification in Wellington, Mary gained hers in Aldershot and Exeter in the United Kingdom. Both worked as hospital midwives before becoming LMC midwives. Irene has worked mainly with hospital birth but believes strongly in physiological birth. Mary works in the Stratford area, some distance from the hospital and practices physiological placental birth if the labour is normal.

Brenda McHugo is a New Zealander who gained her midwifery qualification in England. She worked in homebirth and hospital birth in both Britain and Aotearoa New Zealand. She was a competent and confident practitioner who worked in Wellington and in Kenepuru hospitals prior to working as a LMC in the Porirua area.

Jim Hefford discussed his experiences as a GP who practised obstetrics in the New Plymouth area, then relocated to Palmerston North, where he later became a Member of the Palmerston North Area Health Board.⁸²⁵

⁸²² Lucy, Oral History Audiotape.

⁸²³ Marama, Oral History Audiotape.

⁸²⁴ I. Calvert, Oral History Audiotape, Waikanae, July, 2008; Garlick, M., Oral History Audiotape, Stratford, November, 2008. B. McHugo, Oral History Audiotape.

⁸²⁵ J. Hefford, Oral History Audiotape, Wellington, February, 2009.

Ken Clark and Digby Ngan Kee are senior obstetricians at Palmerston North Hospital, currently employed by MidCentral District Health Board. Ken Clark is currently Chief Medical Officer for MidCentral Health. He is a past president of the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) and is the recipient of an Honorary Fellowship from the Royal College of Obstetricians and Gynaecologists for services to women's health. Ken Clark has also represented RANZCOG at the Federation of International Gynaecologists and Obstetricians.⁸²⁶

Currently, Digby Ngan Kee is the Vice President of the Royal Australian and New Zealand College of Obstetricians and Gynaecologists, and Regional Clinical Director of Women's Health for Wanganui and MidCentral District Health Boards.⁸²⁷ Both Ken Clark and Digby Ngan Kee have also had extensive experience as private obstetricians and gynaecologists.

Graeme Sharp is a retired obstetrician and gynaecologist who worked in both public and private capacities in the Wellington St Helens Hospital, Wellington Hospital, and Kenepuru Hospital (Porirua). He qualified as a doctor in 1953, as a surgeon in 1960 after training as a doctor in Otago and as a surgeon and obstetrician and gynaecologist in the United Kingdom.⁸²⁸ He became a Fellow of the College of Obstetricians and Gynaecologists in 1977.⁸²⁹ Currently aged in his eighties, Graeme Sharp gave a perspective on his obstetric experiences from his days as a house surgeon in Wellington Hospital in the 1950s until his retirement in 1985.⁸³⁰

Original Teachings around Placental Birth

This section will discuss the answers to the non-demographic questions in the interview guide, beginning with the question: *How were you taught to manage the birth of the placenta when you began your career?* Not all participants could remember what they had been taught in

⁸²⁶ K. Clark, Oral History Audiotape, Palmerston North, November 2007.

⁸²⁷ D. Ngan Kee, Oral History Audiotape, Palmerston North, November, 2007.

⁸²⁸ Postgraduate obstetrical and gynaecological education was not available in New Zealand at that time.

⁸²⁹ [www.http://ccdhb.org.nz/hhist/staff/SharpGR.html](http://ccdhb.org.nz/hhist/staff/SharpGR.html) Sourced 9/3/11 from the Capital and Coast District Health Board Website.

⁸³⁰ G. Sharp, Oral History Audiotape, Te Horo, October, 2007.

their student days, or when they first started practice. In the 1940s, Lilian remembered being taught the 'non-active' management that involved sitting beside the woman with her hand gently on the fundus, waiting for it to separate, and 'guarding' the uterus to detect uterine distension caused by bleeding.⁸³¹ Pitocin was given after the birth of the placenta. She was comfortable with that style of practice believing it was gentler on the mother and safer than 'active management', and as noted earlier, continued to use it throughout her career. Mary Garlick commented that, in 1960s Britain, she used a similar technique but with ergometrine or syntometrine given with the birth of the baby, and when controlled cord traction was taught in the 1960s it was considered "revolutionary".⁸³²

I remember being taught to watch for the signs of placental separation during my 1960s nursing training, but this had been superseded by 'classical' active management by the 1970s. Brenda McHugo had been taught the older methods, including Crede's manoeuvre in Britain and did not see controlled cord traction until she came back to New Zealand in the early 1970s.⁸³³ Graeme Sharp could not remember his early practices but was seen, a number of times, by at least two participants,⁸³⁴ to use fundal pistoning to remove a placenta with an avulsed cord, indicating a degree of familiarity with methods older than active management. Jim Hefford had also learned, and practised the older techniques.

Jan Warren, Irene Calvert and Lucy, were the only midwife participants that had been taught both active management and physiological placental birth.⁸³⁵ The other seventeen midwives were taught only active management. At least half the participants had been taught the signs of placental separation but, although they knew them, for the majority signs of separation were not part of managing 'third stage'. The 'classical' 1970s active management did not utilise the

⁸³¹ Lilian, Oral History Audiotape.

⁸³² M. Garlick, Oral History Audiotape, Stratford, November, 2008.

⁸³³ B. McHugo, Oral History Audiotape, Otaki, July, 2008.

⁸³⁴ J. Stojanovic, Oral History Audiotape, November 2007.

⁸³⁵ J. Warren, Oral History Audiotape, Otaki, January, 2008; Lucy, Oral History Audiotape; I. Calvert, Oral History Audiotape; Their Wellington Polytechnic lecturer believed that practitioners should be familiar with both styles of management.

signs of separation. It included an intramuscular (IM) or intravenous (IV) ecbolic injection. The drug of choice had been ergometrine but by the late 1970s usually syntometrine or syntocinon was given. The injection was given with the crowning of the baby's head or with the birth of the anterior shoulder. The timing of cord traction was contingent on whether the ecbolic was being injected intravenously or intramuscularly because it was commenced prior to the ecbolic beginning to work. Cord traction was constant throughout, and was existent before the first ecbolic induced contraction. Both Ken Clark and Digby Ngan Kee had been strictly taught this method of active management.⁸³⁶

The idea was that the cord traction did not allow the placenta to be caught in the lower segment in a partially separated state, which was perceived to be a major cause of haemorrhage. In St Helens IV syntocinon was given directly into the woman's vein by the student midwife or the registered midwife; in most other places an IM injection was used. After the baby was born, while the accoucheur was attending to the baby, the midwife would take the woman's blood pressure. If the blood pressure was normal an injection of ergometrine would be given to the woman. From late in the 1970s it became common to give the the ergometrine only if there was considered to be a high risk of postpartum haemorrhage (PPH).

The next section of this chapter explores how practitioners changed their practice for the birth of the placenta over time, and what influenced them.

Influences and Preferences

This section provides an overview of the responses to three questions: *How has the management of the birth of the placenta changed over the time that you have practised? What is your preferred method of managing the birth of the placenta? Can you describe any incidents or experiences or any other factors that you feel have influenced you in your beliefs about the management of the birth of the placenta?* Because there was duplication and overlapping of the answers it was evident that combining them for the purpose of efficient writing was necessary.

⁸³⁶ Digby Ngan Kee, Oral History Audiotape; K. Clark, Audiotape.

Graeme Sharp, who trained at Otago Medical School, felt that, for him, the care of third stage was “no big deal”. He remembered having an argument with T.F. Corkill in Wellington in the 1950s or early 1960s about the choice of ecbolic, and believed the use of ecbolics was introduced to “reduce uncertainty”. He commented that it was difficult to change the views of older obstetricians, and that he had never been afraid of the third stage. He believed that if a practitioner was fearful “they should not be practising” as they tended to interfere unnecessarily. This confidence in the face of emergency situations was noted by the midwives who worked with him. The researcher remembers a limerick composed on a quiet night duty at Wellington St Helens that began: “Mr Sharp is distinguished and tall, his calm is admired by all...”⁸³⁷ Graeme Sharp commented that while training in Britain as an obstetrician he saw very few normal births as they were “done by the midwives”, the doctors being called in only when there were complications.

The currently practising obstetricians, Digby Ngan Kee, and Ken Clark, have not changed their practice, both strongly believing that actively managed third stage of labour is the safest method of placental birth. Ken Clark stated his preference for active management but, nevertheless, would accommodate the wishes of clients “up to a line in the sand”. He was taught active management as an unchangeable ritual by Professor Seddon in Wellington, and only learned about other ways of managing the third stage of labour later, when he worked in Bristol. He related that the senior midwives in Bristol believed there were better or similar results using ‘physiological management’ and this had been instrumental in the establishment of the Bristol Trial⁸³⁸ which was being planned while he worked there. Ken Clark commented that because research was often problematic he tended to be guided by the Cochrane Reviews and meta-analyses. He admitted that being constantly exposed to birth complications must affect obstetricians’ attitudes, and remembered the death of the mother of twins from PPH as a very influential event.

⁸³⁷ J. Stojanovic, Personal Experience, St Helens Hospital Wellington, 1979.

⁸³⁸ W. Prendiville, E. Blair, Randomised controlled trial of oxytocin alone versus oxytocin and ergometrine in active management of third stage of labour

Digby Ngan Kee strongly preferred active management citing the Hinchingsbrook Trial⁸³⁹ as proving that there was less blood loss when active management was used. He had seen ‘physiological management’ used and commented that the main issue, for him, was that either method “needs to be properly managed”. He was of the opinion that mixing the two management methods increases the PPH rate.⁸⁴⁰ Ken Clark also expressed that he felt that most of the severe PPHs that he had seen had been where the methods had been mixed.

Digby Ngan Kee commented that he had been strongly influenced by research, particularly randomised controlled trials (RCTs) and meta-analyses, and especially by his teachers, but added that the most important influence on his practice had been from seeing “horrendous PPHs and maternal death from PPH.”⁸⁴¹ He believed that women needed “equally presented informed choice”⁸⁴² and he expressed doubt as to whether women were receiving it.

He described being taught at Auckland Medical School during the “heyday” of National Women’s Hospital in Auckland by Professors of the quality of Liley, Liggins, and Bonham. Bonham had been very instrumental in changing practice in New Zealand, having had a strong interest in maternal mortality. He had been involved in the British Confidential Enquiry into Maternal Mortality in the 1950s, and fervently believed that active management would lower maternal mortality. Bonham was highly influential in facilitating the introduction of active management in NZ not only through his teaching of a “whole generation” of medical students,⁸⁴³ but also through the workshops he ran for maternity practitioners.⁸⁴⁴

Both Ken Clark and Digby Ngan Kee preferred to clamp and cut the umbilical cord immediately and apply immediate cord traction. Ken Clark stated that he was so used to doing it at

⁸³⁹ J. Rogers, J. Wood, R. McCandish, et. al., Active versus expectant management of third stage of labour:

⁸⁴⁰ D. Ngan Kee, Oral History Audiotape.

⁸⁴¹ D. Ngan Kee, Oral History Audiotape.

⁸⁴² D. Ngan Kee, Oral History Audiotape.

⁸⁴³ D. Ngan Kee, Oral History Audiotape.

⁸⁴⁴ D. Ngan Kee, Oral History Audiotape; J. Hefford, Oral History Audiotape.

Caesarean Sections where it needed to be done quickly that it had become automatic, although he would delay clamping and cutting for a short while if requested by the mother. Digby Ngan Kee was aware of the literature stating that babies are less likely to become anaemic if the clamping of the cord is delayed. He believed it was more relevant to developing countries than Aotearoa New Zealand and had not changed his practice.

A GP maternity practitioner that had attended Bonham's workshops and strongly respected Bonham's work in maternal mortality was Jim Hefford. He was used to the older practice methods, and stated that he had been taught by a senior midwife in Tokonui as a young GP. While in practice in Taranaki he "got the word from National Women's that cord traction was now okay".⁸⁴⁵ Unfortunately he did not know that it was 'controlled' cord traction, and that he had to guard⁸⁴⁶ the uterus. This resulted in him needing to transfer a moribund woman in deep shock to New Plymouth Hospital with an inverted uterus. The woman survived, and he learned how to perform active management using controlled cord traction. He described the event as his "worst third stage experience". Jim Hefford was the only medical participant who had attended homebirths, which he did not enjoy. He described feeling as though "he was in the back seat of the car but was the only one with a licence."⁸⁴⁷

Jim Hefford altered his third stage practice in the 1980s when working in Palmerston North. He had attended a workshop with the well known obstetrician, Professor Liley, and his wife, Margaret Liley, and became aware that mother-baby contact and breastfeeding helped to contract the uterus. He commented that he always gave the baby to the mother thereafter.⁸⁴⁸

⁸⁴⁵ J. Hefford, Oral History Audiotape.

⁸⁴⁶ Guarding the uterus is perceived as two different methods by practitioners; the older midwives 'guarded the uterus' by keeping their hand on the fundus to assess for bleeding and to monitor the separation of the placenta, whereas "guarding the uterus" for midwives taught active management is by placing a hand suprapubically to support the uterus whilst maintaining traction on the umbilical cord with the other hand.

⁸⁴⁷ J. Hefford, Oral History Audiotape.

⁸⁴⁸ It was about this time that the early contact between mother and baby began to be fairly universal, but the mother-baby contact was short and interrupted. The baby was taken away for weighing, checking and dressing before being returned to its mother for breastfeeding after the birth of the placenta. The mothers were often lying supine, or later semi-supine, positions which were not conducive to early breastfeeding. But nevertheless, it was an improvement on earlier practices where the baby was not given to the mother.

He also attempted to encourage women to be upright for birth by introducing a frame which could be fitted onto a hospital bed to facilitate upright birth.⁸⁴⁹ The Palmerston North obstetrician, Dr. Ahnamuigan, was very against it, believing that the number of third and fourth degree perineal tears would increase. Jim originally mentioned the upright birth in the context of changing his third stage practice. Although he always used an ecboic, he was very aware of writings about maternal physiology and the changes he was introducing were in line with what midwives were trying to introduce in the 1980s, influenced by Kitzinger and Balaskas' writings.

Graeme Sharp, Jim Hefford and Ken Clark discussed the risk of uterine inversion and described a method of treating it immediately it occurred by utilising "gallons and gallons" of normal saline to float the uterus back into position. Graeme Sharp commented that midwives should be aware of the method as it could be done anywhere, even in isolated areas. All agreed that in the case of uterine inversion the placenta needed to stay attached and not be peeled off as that would cause major haemorrhage.⁸⁵⁰

Of the twenty midwives, only one, Glenda Stimpson, whose decades of midwifery experience was in hospital midwifery, expressed her absolute preference for active management.⁸⁵¹ If she was still practising active management would be her choice. She criticised current active management because she believed that without the routine postpartum ergometrine or the use of syntometrine practitioners were not properly "managing" the third stage.

Glenda Stimpson's opinion was at the medical model end of the spectrum of practice, but even she did not appear to be totally against physiological placental birth. She commented "Don't watch the clock if you are doing physiological."⁸⁵² Glenda Stimpson echoed Digby Ngan Kee in being strongly against the mixture of physiological and active management that she believed

⁸⁴⁹ The researcher remembers practitioners in the 1980s developing frames that women could use to enable upright birth on the bed in hospital as it was believed that birthing off the bed would be unhygienic and dangerous.

⁸⁵⁰ K. Clark, Oral History Audiotape; J. Hefford, Oral History Audiotape; G. Sharp, Oral History Audiotape.

⁸⁵¹ G. Stimpson, Oral History Audiotape.

⁸⁵² G. Stimpson, Oral History Audiotape.

was common practice. For the purposes of clarity we will call this 'hybrid' practice. It is where practitioners combine elements of the two main methods of managing the third stage of labour.

Lilian, Brenda McHugo, and Mina Timutimu would give an ecbolic but not use controlled cord traction.⁸⁵³ Mina Timutimu felt it was necessary to give an ecbolic because of the hospital's expectations, but would not use an ecbolic at homebirths, where she practised physiological placental birth. Margaret Wilton, Irene Calvert, and Cherril Suckling⁸⁵⁴ commented that they had never had problems using active management, but depending on the context would use physiological birthing if the woman requested it. Both Irene Calvert and Cherril Suckling commented that if they were working independently now they would use physiological management, believing it to be better for mother and baby. Margaret Wilton explained that she would "go with the flow" being open to, and comfortable with, both methods, and mentioned that many practitioners were "doing a bit of both."⁸⁵⁵

A number of the midwives noted that the choice of physiological placental birth would be dependent on context, indicating that they would be taking factors such as birth interventions and maternal wellness into consideration. Lilian would clamp and cut the cord and sit beside the mother chatting with her hand on the fundus. Sometimes she would give the baby to the mother to feed. She commented that often the mother did not realise the placenta had arrived.⁸⁵⁶

Elizabeth Jull and I used active management in the secondary hospital setting (not at homebirth or primary birth settings) or if women preferred it. We learned to delay the administration of the ecbolic and the clamping and cutting of the core to allow the baby to receive the cord blood. We would then, after some minutes proceed with continuous cord tension/traction as

⁸⁵³ Lilian, Oral History Audiotape; B. McHugo, Oral History Audiotape.

⁸⁵⁴ M. Wilton, Oral History Audiotape; I. Calvert, Oral History Audiotape; C. Suckling, Oral History Audiotape.

⁸⁵⁵ M. Wilton, Oral History Audiotape.

⁸⁵⁶ Lilian, Oral History Audiotape.

used in 'classical' active management. We did not encounter problems using this adaptive technique. Physiological birthing was used in homebirth or primary settings when preferred by women.⁸⁵⁷

Maggie Banks and Jenny Johnston, the midwives who offered strictly homebirth care, were at the opposite end of the spectrum of practice to Glenda Stimpson. They would not look after women who wanted active management of labour, and would offer it only as 'last resort' treatment for bleeding. They believed it was an intrusive intervention that should not be routinely offered to women in a normal healthy labour. They were among others who saw active management as unsafe compared to physiological.⁸⁵⁸ Other participants' attitudes to active management fell between the two extremes of the spectrum but most were convinced of the benefits of physiological placental birth, a very different scenario than when the researcher was offering it in the 1990s. The last decade has seen physiological birth become more accepted as an option in New Zealand hospitals.⁸⁵⁹

When measured against the theoretical framework, Jenny Johnston, the researcher, Maggie Banks, Elizabeth Jull, Lucy, Dawn Holland, Marama, Mary Garlick, Ruth Martis,⁸⁶⁰ Mina Timutimu, and Heather Woodfield⁸⁶¹ had learned to use what is described in the current research as physiological placental birth. The other midwives' practices may have bordered on hybrid practice with delayed cord clamping and an emphasis on checking for the signs of placental separation. Several midwives mentioned telling the woman that they still had to push out the placenta, which could distract the woman from the total mother-baby immersion that appears to facilitate placental separation and birth; others would delay clamping the cord until

⁸⁵⁷ E. Jull, Oral History Audiotape. J. Stojanovic, Oral History Audiotape.

⁸⁵⁸ M. Banks, Oral History Audiotape; J. Johnstone, Oral History Audiotape.

⁸⁵⁹ This is evidenced by both methods now being part of hospital clinical guidelines. For an example, see: MidCentral Health, Clinical Guideline for the Management of the Third Stage of Labour, Palmerston North, 2010.

⁸⁶⁰ R. Martis, Oral History Audiotape, Otaki, March 2009.

⁸⁶¹ H. Woodfield, Oral History Audiotape, Palmerston North, October, 2007.

pulsations ceased but did not wait until after the birth of the placenta. They referred to this style of placental birth as 'Physiological Management'.

Ruth Martis, born at home herself, had been working in the hospital maternity ward as a nurse and had imbibed the medical view of birth. When she began her midwifery course the Wellington Polytechnic lecturer, Gill White, had begun the class by pointing out that "birth was a normal and physiological event". The recognition of this concept had a major effect on Ruth Martis' midwifery philosophy and practice.⁸⁶² She laughingly recounted how at one stage she had almost become dependent on having the woman sit on a red bucket to use gravity to expel the placenta when she was providing homebirth services. Her anxiety around the third stage ebbed as she became more confident and she stopped worrying about providing a receptacle. She believed Balaskas, and the women themselves, were major influences in how she managed third stage during her fifteen years working as a homebirth midwife.

Maggie Banks also recounted that watching a woman birth at home had made her realise that physiological placental birth was normal and that the birth of the placenta did not need to be assisted.⁸⁶³ Dawn Holland felt angry that she had been "brainwashed" into believing that all of the routine hospital practices such as suctioning babies and actively managed placental birth were absolutely necessary. Norma Campbell recounted how you "watched the woman like a hawk, and it was active management because if you didn't she would haemorrhage and it was your fault because you didn't manage it properly".⁸⁶⁴ It took her years to unlearn her hospital training and even when she worked as an independent midwife she had some anxiety about discussing options for placental birth. Norma Campbell also expressed concern that some midwives offered physiological birth too freely without taking into consideration factors like maternal exhaustion, long recognised as a risk factor for PPH. Norma Campbell recognised the influence of her midwifery colleagues and birthing women as having the most important impact on her midwifery practice.

⁸⁶² R. Martis, Oral History Audiotape, 2009.

⁸⁶³ M. Banks, Oral History Audiotape.

⁸⁶⁴ N. Campbell, Oral History Audiotape.

The midwifery preferences around placental birth displayed by the midwife participants had been shaped by various influences. Heather Woodfield admitted that when she began omitting the ecobolic injection or delaying cord clamping at the request of the woman it was almost in rebellion against medical power. As a hospital midwife she felt powerless because of the institutional constraints and used responsible subversion to exercise her own power over the situation. She would be asked by the women to delay cord clamping as part of her birth plan but the doctors would over-ride the women's wishes. She explained how she would purposely be late calling the doctor for the birth just so the woman could have the cord clamping delayed. She commented on the level of horizontal violence she had encountered from midwifery and medical practitioners who were not comfortable with physiological management of birth being offered in the hospital.⁸⁶⁵ This was obviously also an issue for Lucy as she admitted that the reason she requested anonymity was because she did not wish her quite legitimate practices to come to the attention of the hospital establishment.⁸⁶⁶ Norma Campbell also discussed the horizontal violence that she endured when she first became an independent midwife in 1992, when she and her colleagues would work practice in pairs to support each other.

Margaret Wilton had worked at Whanganui hospital where waterbirth was offered. Active management was considered to be contra-indicated if the woman was in the water for the birth of the placenta.⁸⁶⁷ While more confident with active management, Margaret Wilton became comfortable with physiological 'management'.⁸⁶⁸ It became very clear from the midwives' comments that 'physiological management' rather than physiological placental birth was still being offered by many midwives. Margaret Wilton admitted that she had never seen the placenta born without the cord being clamped and cut first. Even the midwives who were proactive in offering the choice of method to their clients commented that it had taken years for them to not intervene at all in the third stage of labour. Most, including the researcher, had

⁸⁶⁵ H. Woodfield, Oral History Audiotape; E. Jull, Oral History Audiotape;

⁸⁶⁶ Lucy, Personal communication, October, 2007.

⁸⁶⁷ There was thought to be a theoretical risk of water embolism.

⁸⁶⁸ M. Wilton, Oral History Audiotape.

begun by practising a 'hybrid' form of 'physiological management' where the ecobolic was omitted, the cord clamped and cut after pulsations ceased, and signs and symptoms of placental separation were looked for prior to maternal effort, and sometimes very tentative controlled cord traction, being used to expel the placenta.

A number of midwives found the active management of the third stage repugnant. Chris Hendry called it "barbaric".⁸⁶⁹ Several commented on the "bullying"⁸⁷⁰ roughness with which it was performed by certain medical practitioners. These comments were qualified by a comment on the gentleness of other doctors.⁸⁷¹ For some practitioners, it was thought that the wish to finish the birth seemed to be the main issue, rather than the women's wellbeing. The researcher personally saw a manual removal of placenta performed in 1979 with no anaesthetic and for no clinical reason by a GP three minutes after the birth of the baby. The only reason evident was that it was two o'clock in the morning.⁸⁷² Cherril Suckling commented that the most negative aspect of the third stage of labour for her was "the rush to get the placenta out."⁸⁷³

Ruth Martis worked as a researcher in maternity in South East Asia and strongly believes that physiological management⁸⁷⁴ needs to be taught to all maternity practitioners. She was horrified by the third stage mismanagement she saw while she was there, particularly in the Philippines. She strongly believes that active management should be taught only as a treatment, not as a routine. She felt that the World Health Organisation's teachings were not

⁸⁶⁹ C. Hendry, Oral History Audiotape,

⁸⁷⁰ H. Woodfield, Oral History Audiotape; E. Jull, Oral History Audiotape; C. Hendry, Oral History Audiotape; R. Martis, Oral History Audiotape.

⁸⁷¹ H. Woodfield, Oral History Audiotape.

⁸⁷² J. Stojanovic, Personal experience, St Helens Hospital, 1979.

⁸⁷³ C. Suckling, Oral History Audiotape.

⁸⁷⁴ 'Physiological management' is a term used commonly to differentiate from 'active management' but may not be the holistic placental birth that constitutes the theoretical model of this study. However, many of the criteria for optimal placental birthing, such as delayed cord clamping, not using ecobolic drugs, and immediate mother-baby contact would be utilized in physiologically 'managed' birth.

improving maternal mortality, particularly in areas of poverty where people could not afford to buy the drugs and syringes that were required. The view that active management should be used as a treatment, rather than as a routine was expressed by other midwives, although others believed that physiological placental birth should only be offered if all else was natural and spontaneous.

The midwives who had been exposed to physiological placental birth or to the less holistic physiological 'management' of third stage labour, had become accustomed to the different practice styles in different ways. A number who had been involved in homebirth, as mentioned earlier, commented that women had taught them, some had attended homebirths as back-up midwives and learned by observing midwives' practice, some had learned about it when attending homebirth antenatal classes. A number had seen other midwives practising it in hospital and been impressed. Botha's, Odent's, Kitzinger's, Frye's and Sarah Buckley's writing had influenced midwives. Research had also been a factor, but a reactive factor. The Hinchingsbrooke Trial had been presented to the midwives as the research gold standard, the last word on managing placental birth but many of the midwives noted that the research was carried out in a large busy hospital without continuity of carer. As this was a totally different practice environment to theirs, they did not see such research as relevant to their practice.

Midwifery Perceptions of Physiological Placental Birth

The majority of the midwifery participants preferred physiological placental birth, the midwives who were homebirth practitioners strongly preferred it. Most of the midwives declared their preference for physiological birth for similar reasons; these included the idea of undisturbed birth, the uninterrupted mother-baby contact with its potential impact on bonding, the baby receiving the blood from the cord as it would in nature, and a "more natural" slower, more relaxed pace. These aspects of placental birth were all seen as being beneficial for mother and baby, enhancing not only the birth experience but both infant and maternal attachment and long-term health.⁸⁷⁵ Diana Murray, a Wellington midwife highly experienced in tertiary,

⁸⁷⁵ For recent discussion on the long term benefits of physiological placental birth, see: M. Odent, *Childbirth in the Age of Plastics*, Pinter and Martin, London 2011.

secondary and primary birth, including homebirth, described her impression of physiological placental birth. Although she is not an interviewee in the present study, her description is included because it illustrates why so many midwives have come to prefer physiological placental birth.

In a warm, dimly lit room, there is an atmosphere of love and anticipation. The mother is kneeling as her baby is gently born to lie in front of her. She gazes at him as he opens his eyes and looks back at her as he starts to breathe. "Hello baby" she says and she is filled with a surge of love and wonder. The umbilical cord pulsates, sending the last of the blood from the placenta, gifting the baby with oxygen and nutrients for the last time. The mother gently touches her baby and is amazed by his warmth and softness. She then carefully picks him up and holds him against her body. He feels her heart beating and smells and senses the milk, which will sustain him as he grows. His senses are awakened and he nuzzles and moves until he captures her nipple in his mouth and begins to suckle. Another surge of love and wonder fills the mother causing her uterus to contract, and the placenta to be born.⁸⁷⁶

To practitioners accustomed to active birth, where the mother moves around freely and is in control of her birthing, intervention is minimal, and the birth uninterrupted, this description will be familiar. To those who are unaccustomed to such births it may seem farfetched and romanticised. It is true that not all births will be completed physiologically, and for some mothers intervention is necessary for the wellbeing of the mother or baby. However, for midwives who facilitate physiological birthing, and have an awareness of the potential intrusiveness of midwifery care, this scenario is very normal and wonderfully rewarding for the woman, her family and the midwife, providing a gentle and comforting beginning to the baby's extra-uterine life which may have ramifications for future wellbeing.⁸⁷⁷

Physiological Placental Birth and Babies

Three important influences on infant wellbeing were described by the midwives when physiological placental birth is practised. Firstly, because there is no need to give an injection, clamp the cord, or move the woman into position to enable guarding the uterus and cord traction, the intimate connection between the mother and the baby is undisturbed. This allows

⁸⁷⁶ D. Murray, Risk and the Third Stage of Labour, unpublished essay, Wellington, 2005.

⁸⁷⁷ For discussion on the potential effects on the baby, see: S. Buckley, Gentle Birth, Gentle mothering; M. Odent, The Scientification of Love; M. Odent, Birth in the age of Plastic; K Uvnas-Moberg, *The oxytocin factor*.

a slower, gentler physiological transition for the baby from the fetal state to the infant state with all of the respiratory and circulatory changes happening in the manner intended by nature. Provided that the environmental factors that support optimal placental birth, such as a warm room and atmosphere of trust are in place, there is usually no need to stimulate the baby to breathe, wrap the baby in towels⁸⁷⁸, or do anything other than unobtrusively observe and monitor the mother's and baby's status.⁸⁷⁹

Secondly, the omission of clamping and cutting the umbilical cord ensures that the baby has its full complement of blood enriched with stem cells. Midwives who practised physiological placental birth felt strongly that it was wrong to deprive the infant of its own blood, and stem cells that may have an important, albeit presently unknown, function in enhancing the baby's health.⁸⁸⁰ Thirdly, uninterrupted skin to skin interaction between mother and baby was noted as improving the baby's health outcomes by aiding thermoregulation, therefore reducing the risk of hypoglycaemia. The baby is colonised with maternal skin flora, appropriate to the baby's home environment, for which the mother has developed antibodies that she will give to the baby with her breast milk thus enhancing the infant immune system.⁸⁸¹

Administration of the uterotonic drugs, syntocinon and ergometrine, during the third stage of labour was shown by Jordan to have a detrimental effect on breastfeeding.⁸⁸² Breastfeeding has also been shown to be less problematic when the skin to skin contact is undisturbed, allowing the baby to instinctively use the signals of touch and smell to find its own way to the breast and commence suckling.⁸⁸³ The breastfeeding dyad of mother and baby both benefit

⁸⁷⁸ There is a need to cover both mother and baby if the room is not adequately warm.

⁸⁷⁹ M. Banks, Oral History Audiotape; J. Johnstone Oral History Audiotape; J. Stojanovic, Oral History Audiotape, Otaki, 2007.

⁸⁸⁰ J. Johnstone, Oral History Audiotape.

⁸⁸¹ For discussion on this topic, see: M. Odent, *Childbirth in the Age of Plastics*, p. 42.

⁸⁸² S. Jordan, S. Emery, A. Watkins, et al. Associations of drugs routinely given in labour with breastfeeding at 48 hours: analysis of the Cardiff Births Survey, *British Journal of Obstetrics and Gynaecology*, Vol. 116, No. 12, 2009, pp. 1622-32.

⁸⁸³ M. Gabriel, I. Martin, A. Escobar, et.al., Randomised controlled trial of early skin to skin contact: effects on the mother and the newborn, *Acta Paediatrica*, Vol. 99, No. 11, 2010, pp. 1630-4.

from learning that they are able to breast feed naturally and without external assistance. Synthetic oxytocin, although chemically equivalent to natural endogenous oxytocin does not have the same effect on maternal emotions and behaviour, reducing the effect on the maternal brain that the natural hormone can produce. This has potential for a lessening of attachment between mother and baby and therefore could be a risk to the infant's survival.⁸⁸⁴

The reasons that had been mooted by the medical establishment in support of immediate cord clamping were seen as unfounded by most of the midwives. It has been a paediatric opinion for decades that babies who did not have their cords cut immediately were at high risk of being, at least plethoric and therefore liable to increased jaundice,⁸⁸⁵ at worst, polycythaemic, and consequently at risk of circulatory failure.⁸⁸⁶ Midwives who had practised physiological birth over decades commented that these outcomes were either non-existent or very rare. They had not encountered them. Mary Garlick believed the blood in the cord was good for the baby. Jan Warren and Elizabeth Jull both commented that they believed they had seen more jaundiced babies following active management, and that babies from births where the third stage was physiological had less problems breastfeeding, but Jan Warren agreed that other factors could also influence the outcomes.⁸⁸⁷ There was also speculation that not cutting the cord immediately, but resuscitating a compromised baby while it is still attached to its mother may produce better outcomes for the child. Dawn Holland gave an example of a baby who did not breathe for sometime but was supported by the cord continuing to beat until it did.⁸⁸⁸

⁸⁸⁴ For further information on this topic, see: S. Buckley, Gentle Birth, Gentle mothering; E. Nelson, J. Panksepp, Brain substrates of infant-mother attachment: contributions of opioids, oxytocin, and norpinephrine, *Neurosci Biobehav Rev*, Vol. 22, No. 3, 1998, pp. 437- 452. Pedersen, C., Boccia, M., Oxytocin links mothering received, mothering bestowed, and adult stress responses. *Stress*. Vol. 5, No. 4, 2002, pp. 259-267.

⁸⁸⁵ H. Woodfield, Oral History Audiotape.

⁸⁸⁶ For further discussion, see: J. Mercer, D. Erickson-Owens, B. Graves, M. Haley Evidence-Based Practices for the Fetal to Newborn Transition, *Journal of Midwifery and Women's Health*, Vol. 52, No.3, 2007, pp. 262 – 272; A. Yao, M. Moinian, J. Lind, Distribution of blood between infant and placenta after birth, *The Lancet*, Vol. 2., No. 7626, 1969, pp. 871-873.

⁸⁸⁷ J. Warren, Oral History Audiotape; E. Jull, Oral History Audiotape.

⁸⁸⁸ D. Holland, Oral History Audiotape.

Physiological Placental Birth and Maori

For Maori women the ability to feel in control of their birthing and an ability to have *whanau* supporting them and performing the rituals associated with their culture can be facilitated in almost any birthing environment but physiological birth is their heritage, and achieving it can be inspiring and culturally affirming to the women and their *whanau*. At the birth a *karanga* may welcome the baby. This ritual is facilitated when physiological placental birth is used. An example of such a *karanga* was gifted to the researcher by Mina Timutimu for this thesis:

Haere mai te mokopuna o nga matua tupuna. Haere mai i roto i te Ao Marama

Welcome to this world of light, our grandchild who carries the imprint of our ancestors, welcome.⁸⁸⁹

Mina Timutimu and her sisters, Makaira and Wairengirengi, pointed out that Maori rituals associated with the birth of the baby and the placenta had been carefully written about, preserving them for posterity, but the practices associated with the birth of the placenta were not. They believed that the birth of the placenta was considered to be just a natural event that happened without anything being done, and therefore as a natural part of the baby's birth there had been no reason to write about it.

Mina Timutimu discussed the ritual of burying the *whenua* in the earth and its significance. Her family's *whenua* and the *pito* from the babies were buried in a special area set aside for that purpose. She showed the place to the researcher. The common custom of planting trees over the *whenua* was not practised in her family and she believed it was an introduced rather than a Maori custom. Her sister related how, when unable to keep her babies' *whenua* to bury, she tried to compensate for its lack by taking her babies to her family land and ritually dipping their feet into the stream. It was noted that some Maori were making their own *epuwhenua* and that using any receptacle that has been used for food for the *whenua* is culturally unacceptable to most Maori. A difficulty for many modern young Maori who want to bury their baby's *whenua*

⁸⁸⁹ M. Timutimu, Oral History Audiotape.

is finding a permanent place to bury it as they are a very mobile population. It is not uncommon for them to bring their placentas back from Australia for burial in New Zealand soil.⁸⁹⁰

Mina Timutimu had practised in hospital settings and remembered giving an ecboic which she thought was ergometrine. She remembered in the 1960s learning the signs of separation but not practising controlled cord traction. As a LMC midwife she used an ecboic without cord traction in the hospital but used physiological placental birth at homebirths. She “would just wait”⁸⁹¹ for the placenta to birth. The woman would be in whatever position she chose. Mina Timutimu believed that the most important ingredient for successful placental birth was the relationship built up with the midwife during the pregnancy and the trust engendered by her reputation even before the relationship was established.⁸⁹²

Physiological Placental Birth and Postpartum haemorrhage

Many of the midwives had not encountered physiological placental birth until late in their practice. Most had been very confident using active management, although large PPHs had been seen even when active management had been used. Digby had an impression that he had seen more PPHs following physiological birth. This may be so in his practice environment but is not evidenced by the national midwifery statistics, which have been collected over several years. If he is correct in his estimation, it may reflect the ‘hybrid’ nature of many practitioners’ practices. It must be noted that, anecdotally, midwives who delayed the ecboic injection and clamping and cutting the cord prior to controlled continuous cord traction reported no increase in PPH.⁸⁹³

The study published by NZCOM based on New Zealand midwifery data⁸⁹⁴ has been viewed by midwives as a very powerful affirmation that physiological birthing with a normal healthy woman and a spontaneous uncomplicated labour and birth is safe. Chris Hendry commented

⁸⁹⁰ M. Timutimu, Oral History Audiotape; For further information on Maori beliefs around the whenua, see: Makareti, *The Old Time Maori*; A. Mikaere, *Mai te Koreki te Ao Marama*.

⁸⁹¹ M. Timutimu, Oral History Audiotape, 2008.

⁸⁹² M. Timutimu, Oral History Audiotape, 2008.

⁸⁹³ J. Stojanovic, Oral History Audiotape, E. Jull, Oral History Audiotape.

⁸⁹⁴ New Zealand College of Midwives, *Third stage management practices of midwife lead maternity carers*.

that the statistics were from self-employed midwives who were members of the Midwifery and Maternity Providers Organisation (MMPO), comprising approximately seventy-five percent of the NZ midwifery workforce.⁸⁹⁵ The statistics were from 2004, 2005, 2006, and 2007. Consistently, over those years, the annual statistics showed that “the women who had active management of the third stage of labour required treatment more often for bleeding, more often bled more than 500ml, and more often had a retained placenta.”⁸⁹⁶

PPH was not seen as a more frequent hazard by the midwives who used physiological placental birth as their preferred practice. Ruth Martis had three PPHs in 340 births. One woman suffered a bleed from a vaginal tear. Another woman had a placenta accreta. She bled in hospital four hours later prior to going to theatre for manual removal. The other woman did not require transfer to hospital.

Brenda McHugo and the researcher discussed the large number of women in the early 1970s, who, despite the quite large doses of ecbolics they had received, would bleed into their beds an hour or so after the birth. Or on a routine check, a high uterus full of clots would be found; the clots would be expressed using fundal massage, and sometimes a further dose of ergometrine would be given. It was speculated that this may have been because the women were kept supine in bed and not allowed up to use the toilet. This fits with the criteria of the theoretical model.

Many of these women, if the amount of blood clot had been measured and added to the delivery blood loss, would have qualified as having suffered PPH. Because it was a common occurrence and the midwives were so busy, often, at least in Wellington hospital between 1973 – 75, unless the ergometrine injection was repeated, the incident went unreported and was not

⁸⁹⁵ C. Hendry, Oral History Audiotape, 2007.

⁸⁹⁶ C. Hendry, Oral History Audiotape, 2007.

necessarily counted as a PPH.⁸⁹⁷ Chris Hendry also reported seeing some major haemorrhages despite the use of ergometrine, usually an hour or two after the birth.⁸⁹⁸

The opinion that hybrid practice, or “mixing the methods” could lead to PPH was expressed by practitioners from across the spectrum, including Digby Ngan Kee, Ken Clark, Glenda Stimpson, Dawn Holland, Brenda McHugo, and Norma Campbell. Jenny Johnstone stated that “People get into trouble when they do half of one way and half of the other.”⁸⁹⁹ Maggie Banks suggested that people get into trouble when they “fool around”.⁹⁰⁰

Most of the midwives had experienced at least one episode of severe PPH, not always due, however, to atonic uterus. Maggie Banks described two women who experienced uterine distension caused by bleeding, one who was lying down after the birth, the other had birthed upright but had been laid down to deliver the placenta by controlled cord traction because of bleeding. She had a large collection of clots in the cervix, which in retrospect Maggie Banks felt she should have checked for and removed prior to ambulance transfer. Asked how these experiences had influenced her practice, Maggie Banks echoed Graeme Sharp’s comment that “you cannot work in fear.”⁹⁰¹ Most of the practitioners, whether they practised active management or physiological had needed to deal with PPH. When attending homebirths all NZ midwives carry ecbolic drugs and equipment for IV infusion.

Physiological Placental Birth and Avulsed Cord

In actively managed birth cord avulsion is not rare. Many cords are thin and tear away from their insertion site quite readily when pulled. The researcher has had anecdotal evidence of a cord that avulsed with gravity when the woman birthed in an upright position, with no cord

⁸⁹⁷ B. McHugo, Oral History Audiotape; J. Stojanovic, personal experience, Wellington Public Hospital, 1973-75.

⁸⁹⁸ C. Hendry, Oral History Audiotape.

⁸⁹⁹ D. Ngan Kee Oral History Audiotape; K. Clark, Oral History Audiotape; G. Stimpson, Oral History Audiotape; D. Holland, Oral History Audiotape; B. McHugo, Oral History Audiotape; N. Campbell, Oral History Audiotape; J. Johnstone Oral History Audiotape.

⁹⁰⁰ M. Banks, Oral History Audiotape.

⁹⁰¹ M. Banks, Oral History Audiotape.

traction.⁹⁰² Despite the warnings of the medical author in the early 1900s in Chapter Six,⁹⁰³ most avulsed cords do not cause haemorrhage. However if the placenta becomes partially separated and is not expelled, assistance using cord traction cannot be used to deliver it, so there is potential for PPH. There were a variety of responses from participants to the question: “*Would an avulsed cord where there is no heavy bleeding change your practice?*” often alternatively phrased as: “*What would you do for an avulsed cord where there is no bleeding?*”

The medical responses varied. Graeme Sharp, who the researcher has seen successfully wait for fifteen minutes and then use the contracted uterus as a piston to expel the placenta (with a minimum of discomfort to the mother), said he would just wait for nature to expel the placenta. He noted that he had used amyl nitrite to relax the uterus for manual removal in a domiciliary situation.⁹⁰⁴ Digby Ngan Kee’s response was to immediately insert an IV line, and get the woman to operating theatre for manual removal of placenta.⁹⁰⁵ Jim Hefford agreed that he would call an obstetrician for immediate manual removal under anaesthetic.⁹⁰⁶ Ken Clark said if an epidural was in place he would do an immediate manual removal, if not, he would give an IV bolus of 5 IU of syntocinon, wait a minute and ask the woman to push. He would do a vaginal examination to see if the placenta was easily grasped and removed. If it was not separated he would wait, but would quietly be putting in place an IV syntocinon infusion and be getting the woman’s consent for manual removal under anaesthetic. He commented that he would wait awhile, unless there was bleeding, in the hope that the placenta would deliver.⁹⁰⁷

⁹⁰² A midwifery colleague, Personal Communication, Horowhenua Maternity Unit, Levin, 2011.

⁹⁰³ M. Allen, M. McGregor, *The Woman Beautiful*, p177.

⁹⁰⁴ G. Sharp, Oral History Audiotape; He may have been part of a ‘flying squad’ to treat maternity complications at homebirths when working in Britain.

⁹⁰⁵ D. Ngan Kee, Oral History Audiotape.

⁹⁰⁶ J. Hefford, Oral History Audiotape.

⁹⁰⁷ K. Clark, Oral History Audiotape.

Most of the midwives displayed confidence that the majority of placentas with avulsed cords would be born naturally, although Jan Warren answered that she would call the obstetrician to take the woman to theatre for manual removal. Margaret Wilton exemplified the majority of midwifery thinking around care when there was no abnormal bleeding. She commented that “you don’t need a cord to deliver a placenta” and that she would use maternal effort and a change of position.⁹⁰⁸ Heather Woodfield concurred; she would ask the woman to walk, empty her bladder and squat. She would sometimes do a vaginal examination to see if she could grasp and deliver the placenta.

Cherril Suckling agreed with using maternal position and waiting unless there was bleeding, she commented that people just weren’t prepared to wait. Chris Hendry also commented that “people were too quick to do things” contrasting the relaxed atmosphere of a primary birthing unit with the “hustle and bustle” of a secondary maternity unit.⁹⁰⁹

Glenda Stimpson would use an intravenous syntocinon infusion and might try to piston the placenta out. Mary Garlick would wait and might piston it out. Brenda McHugo would get the woman onto her knees and put the baby to the breast. She explained that while the doctors were organising transfer to the secondary care hospital she would often manage to get the woman to expel the placenta in that way when she worked as a hospital midwife.

Dawn Holland would get the baby feeding, the woman upright, up to the toilet and use maternal effort. Elizabeth Jull said she would wait, unless there was bleeding. Irene Calvert would get the woman to squat, or kneel to push it out. Jenny Johnstone and Maggie Banks pointed out that they would not have an avulsed cord as they did not use controlled cord traction except as a medical treatment for bleeding, but if they had they would just give their normal care. Maggie Banks, and the researcher, had both also found the toilet useful for a placenta that was taking a while to birth. This is in keeping with the theoretical model as the

⁹⁰⁸ M. Wilton, Oral History Audiotape.

⁹⁰⁹ C. Hendry, Oral History Audiotape.

use of a toilet facilitates maternal effort, improves the effect of gravity and provides the woman with privacy.

For all but one of the midwives, manual removal was seen as a last resort, usually if the woman was bleeding, however, it was mentioned by two midwives that if the woman was in a rural setting it would affect their practice as the distance from help would factor into their decision-making.⁹¹⁰

How Long is Too Long?

What actually constitutes a retained placenta? Although the time parameters for actively managed birth (usually twenty to thirty minutes) are understood, the time limits for physiological placental birth are far more fluid. This issue was not a question that was posed to the participants, but nevertheless it arose in the interviews.

Maggie Banks commented that although she believed that the placenta usually separated within the first five minutes it often took far longer to birth. She had waited at least six hours, with no bleeding before sending a client into hospital, and had heard at a conference in England that the placenta could take twenty four hours without problems. Normally if the placenta was taking a while she tried different positions such as squatting or kneeling, or the toilet, usually with success.⁹¹¹ Mary Garlick would resort to giving syntocinon and controlled cord traction if the placenta took a long time, after trying other midwifery measures and the toilet.⁹¹² Norma Campbell believes that the woman should decide when it is taking too long for her rather than midwives arbitrarily using time limits.⁹¹³

Marama was very open to leaving the placenta alone after working for a year early in her midwifery care on a Pacific island where she saw women birth in many positions, including

⁹¹⁰ M. Timutimu, Oral History Audiotape; M. Garlick, Oral History Audiotape.

⁹¹¹ M. Banks, Oral History Audiotape,

⁹¹² M. Garlick, Oral History Audiotape.

⁹¹³ N. Campbell, Oral History Audiotape.

sometimes on their backs.⁹¹⁴ Even when they had birthed the baby on their backs they took up squatting positions to birth the placenta. If the placenta did not birth within a few hours the midwives would cut the cord short at the introitus so that the umbilical cord would not be contaminated. The women would be given an antibiotic injection and sent back to their village with instructions that when they birthed the placenta they were to bring it to the hospital and they would be given vegetables in exchange. Uterotonic drugs were not used, although she saw ergometrine given once for bleeding.⁹¹⁵ Syntocinon was unusable because of the lack of refrigeration and ergometrine was kept for emergencies and as valued as “gold”.⁹¹⁶ The women usually brought back their placentas a day or two later. She saw very few problems even though some of the placentas were in situ for some time. This experience gave her a lot of confidence in physiological birth. She remembered a homebirth where the woman took until the next day to expel the placenta.⁹¹⁷ However, in some circumstances she would use active management. If, for example, there was a history of a large PPH or the woman would refuse a blood transfusion. Marama believes that physiological placental birth should be routine for well women having normal births, and active management should be offered as a treatment when required.

Fear and Anxiety

Marama discussed the effect practitioners’ anxiety had on the birth of the placenta. She related that when working as a hospital midwife she often had to reassure new practitioners, both medical and midwifery, because of the fear of PPH. She believed that there was over-reaction to normal bleeding with consequent over-reporting of PPH and over-treatment of the bleeding. Dawn Holland stressed the need to conduct the third stage in a relaxed manner, and reported just waiting while the baby breastfed. She stressed that a relaxed midwife is important. She tries to prevent any tension in the room but admitted to a superstition – she

⁹¹⁴ She thought that they had been influenced by previous hospital experiences.

⁹¹⁵ The bleeding woman was flown to a larger hospital.

⁹¹⁶ Marama, Oral History Audiotape.

⁹¹⁷ Marama, Oral History Audiotape.

does not allow the champagne to be opened until the placenta is born. As time has gone on Dawn Holland says her confidence in women's ability to birth physiologically has increased and she has become more confident.⁹¹⁸ Elizabeth Jull mentioned the woman needing to be relaxed.⁹¹⁹ Jan Warren used aromatherapy to relax women.⁹²⁰ Mina Timutimu stressed the importance of the woman and family having trust in the midwife.⁹²¹ The researcher was taught, as a student midwife, that "anxiety is catching" and that having an anxious midwife was detrimental to the woman's birthing ability.⁹²²

The Chicken or the Egg

The interviews included some speculation as to which methods of managing placental birth were actually the safest. The currently commonly understood rule is that if a woman has had a problem with placental birth, usually a PPH or a retained placenta, then it is mandatory to use active management at the birth of subsequent babies. But the midwifery participants speculated whether the PPH or the retained placenta might have been caused by the active management or the context for birth in the first place. Most midwives would examine the records from the previous birth to see if there were any obvious causative factors for the PPH, and a small asymptomatic PPH would not be taken as a contraindication for the use of physiological birth in hospital, or even at home. Generally, IV access would be established, and the woman's haemoglobin and iron levels would be carefully monitored during pregnancy. Clinical decision-making in these circumstances is tortuous and carefully thought through, risks and benefits are discussed with the woman, and carefully documented. Lucy would encourage

⁹¹⁸ D. Holland, Oral History Audiotape.

⁹¹⁹ E. Jull, Oral History Audiotape.

⁹²⁰ J. Warren, Oral History Audiotape.

⁹²¹ M. Timutimu, Oral History Audiotape.

⁹²² For a discussion on "emotional contagion", see: M. Odent, *Childbirth in the Age of Plastics*, pp. 49, 50.

the woman to birth in hospital with IV access in place, but would not necessarily use active management.⁹²³

The issue for midwives, particularly those accustomed to physiological birth is that, as Naaktgeboren pointed out,⁹²⁴ the hospital environment, and ‘managed’ birth, are not usually conducive to efficient birthing. It follows, therefore, that optimising the body’s processes by using physiological birth in a suitable environment might actually lessen the risk of retained placenta or PPH. This is certainly the contention of Odent, who believes that facilitation of the efficiency of the woman’s oxytocin production by reducing the production of adrenalin during labour would improve birth outcomes, reducing both Caesarean Sections and the risk of PPH. He names Oxytocin the “shy hormone” and discusses the use of non-obtrusive and non-anxious birth attendants, among other factors such as warmth, privacy and darkness, as necessary for the optimisation of birthing.⁹²⁵

The researcher experienced a situation of this kind with a woman who adamantly decided to birth her third baby at home, despite being half an hour’s drive away from the hospital. She had a history of two homebirths, one physiological third stage with retained placenta, one actively managed third stage also with a retained placenta and a PPH an hour later at the hospital. This labour was a very short one; on the researcher’s arrival the woman was pushing. Her husband obligingly passed the midwifery equipment through the window as the woman was helped, at her request, onto her double bed. She birthed in a hands and knees position and then sat back on her haunches holding her baby close to her. She was totally engrossed in her baby.

A previously arranged backup doctor was still some distance away. While contemplating inserting the IV cannula and giving the injection of syntocinon as planned, the intuitive realisation came that interrupting the mother-baby engagement would be

⁹²³ Lucy, Oral History Audiotape.

⁹²⁴ C. Naaktgeboren, *The Biology of Childbirth*.

⁹²⁵ M. Odent, *Childbirth in the Age of Plastic*, pp. 51-59.

counterproductive.⁹²⁶ The mother was totally absorbed in her baby. It was as though the mother and baby were encased in an invisible bubble; if that 'bubble' broke she would retain her placenta. Without interruption of the mother-baby interaction, within two minutes of the baby's birth, the woman pushed her placenta out, much to her surprise and her midwife's delighted relief.⁹²⁷

Maggie Banks discusses the use of "patient vigilance".⁹²⁸ When the baby is born she does not talk to the mother, as she does not want to interfere with the process of the mother falling in love with the baby. She, and other midwives believe that facilitating the mother and the family's bonding with the baby is the most important contribution midwives can make, not only to facilitate placental birth, but for the baby's future survival.

Summary

There are many influences on practitioners' views on the best way to manage the birth of the placenta. The currently practising obstetricians were highly influenced by research, particularly meta-analyses, and by the abnormal labour and birth, particularly PPH and maternal mortality and morbidity that they were exposed to. Graeme Sharp, the retired obstetrician, commented that he saw little normal birthing in his training. Jim Hefford was influenced by the teaching he received from midwives, and from obstetricians, but also kept 'up to date' by attending workshops and reading.

Midwives were strongly influenced by their colleagues and by the women they cared for. They did not believe that overseas research was necessarily relevant to their practice because of where and how the research had been carried out. Institutional constraints on midwifery practice and horizontal violence were issues that could not be explored more fully in this thesis but are worthy of future research.

⁹²⁶ Graeme Sharp mentions the importance of intuition; G. Sharp, Oral History Audiotape.

⁹²⁷ J. Stojanovic, Oral history Audiotape.

⁹²⁸ M. Banks, Oral History Audiotape.

The research participants had been taught various methods of managing placental birth, but had all been exposed to active management. Several midwives, when they could, avoided its use believing the older method of watching for signs of separation was gentler on the women and less likely to cause complications such as avulsed cord or uterine inversion. Active management was used by at least half of the practitioners confidently and for many years, however, a large proportion of the midwives professed acquiring a preference for physiological 'management' in well women having normal healthy labours. While their experience of 'physiological management' did not necessarily fit the style of physiological placental birth used in the current study's theoretical model, it was certainly much closer to meeting the criteria for optimal placental birth than that of active management.

The proponents of physiological placental birth (and of physiological 'management') cited benefits that included a gentler, slower transition to extra-uterine life for the baby. They believed the baby should receive the extra blood and stem cells that would be received in nature, and had not seen increased polycythaemia or increased jaundice amongst 'their' babies. The midwives also cited better breastfeeding, an improved immune system, better thermo regulation, and most importantly better family and maternal attachment as very beneficial for baby. They believed the mothers highly valued the uninterrupted time with their babies, and also seemed to have fewer problems breastfeeding. These ideas correspond closely to those of the theoretical model.

Both Maori and Pakeha women were seen as benefiting because women could stay in control of their birthing. This is empowering and engenders confidence in their perception of themselves as mothers. For Maori, it is easier to use traditional ritual with physiological placental birth and the ability for families to do so is culturally affirming. The proponents, of physiological placental birth, most of the participating midwives, believed PPHs were fewer, and certainly no more than if active management had been employed. There was some uncertainty about the length of time the placenta could be retained safely, but there was recognition that the old medical criterion of an hour was not valid with physiological birthing. Norma Campbell suggested that the woman should be the judge of when a placenta had been

retained too long, which is in keeping with the idea that women should be in control of their birthing experiences. In the light of the physiology involving adrenalin and oxytocin, anxiety in the midwife about the time taken for the completion of placental birth would be counterproductive. These ideas also correspond closely to the ideas inherent in the theoretical model.

A belief in women's innate ability to birth was confirmed and reconfirmed by midwives' exposure to normal birth. Even though PPH was frightening, and maternal and infant wellbeing was the top priority, the midwives had seen so much normal, and even fulfilling birth, that they felt confident in dealing with physiological birth. Opinions were expressed, however, that institutional fear of placental birth is endemic in the risk-averse hospital environment, and amongst less experienced practitioners this could create negative outcomes. The experienced midwife and doctor participants in the current study were aware of the need for calm and confident practitioners, and for women and families to be relaxed and trusting for optimal placental birth, regardless of whether active management or physiological management was being used. Anxiety is deservedly seen as a complicating factor for placental birth.

While midwives expressed the need to consider context and clinical factors in deciding on the manner of placental birth, a number of midwives believe that physiological placental birth is safer than active management. They saw active management as a treatment rather than as the normal routine birthing procedure. They wished to uphold the midwifery imperative to protect normal birthing. In the words of one participant, Maggie Banks:

The only choices there are, are either healthy birthing or unhealthy birthing, and to use these strategies [active management] where it's not necessary is to create unhealthy birthing. I don't offer it as an option. It's not an option. It's a medical treatment for haemorrhage.⁹²⁹

⁹²⁹ M. Banks, Oral History Audiotape.

Conclusion

Introduction

This thesis has addressed a research question that was formulated from reflection on the researcher's experiences as a practising midwife and a philosophy that perceives birth as a normal function. Birth is a physiological process that has been perfected over thousands of generations of childbearing women, but that can be affected, positively or negatively, by the physical, emotional and spiritual wellbeing of the woman, and, it is now apparent, by the beliefs, attitudes and emotional status of any birth attendants. The researcher's experiences that influenced the choice of research question concerned placental birth, which is the focus of the current study. Placental birth is part of the continuum of birth and not a discrete entity. Birth itself is also a socio-cultural event, unable to be divorced from its context; therefore exploration of birth and the contexts that impact on birth also needed to be included in this thesis.

Contextual issues that needed to be identified and made visible by the researcher included the context in which midwifery dwells; the context of patriarchal, hierarchal institutions and a society in which medical authoritative knowledge reigns. Despite the autonomy gained by the profession of midwifery in Aotearoa New Zealand, there is much work to be done before midwifery knowledge will be recognised as being as useful and as important to women's wellbeing as that of medicine. The importance of maintaining women's control over their birthing choices cannot be over-emphasised.

As a reflexive researcher, I could not divorce my midwifery experience and life as a woman from my role as a researcher. This was a major contributing factor to my choice of historical inquiry as the research method. It would, however, be difficult to select data that supported my thesis if it was not existent in the source material. Context is the key to meaningful historical analysis and context in the current research has been carefully researched. My role as a practising midwife and as a woman with a family aided my understanding of the varying contexts being analysed and therefore my position and perspective needed to be made transparent.

The assumptions that I brought to the current study were made visible by the use of my midwifery philosophy to underpin the research, and made evident in the preface to the research. My own experiences form part of the data, were introduced as oral history alongside those of other participants. Careful, purposeful selection of participants with a wide range of midwifery experience was an attempt to reduce the impact of my own values on the oral history data. Being known to the participants influenced the way the interviews were conducted and the data produced, in that the relaxed conversational style that eventuated made it difficult to set a formal agenda. The richness of the ensuing data may have compensated, in part, for that drawback. Of the same gender and profession as the midwifery participants, the sharing of memories and experiences 'de-privileged'⁹³⁰ the researcher, allowing other viewpoints to be heard. In some instances this allowed stories and opinions that would not have been heard within the constraints of the hospital workplace. Being an experienced midwife well-known to three of the four medical participants was also helpful in gaining their willing and helpful participation.

This final chapter identifies and analyses issues that have arisen from the data, and discusses the implications of the findings of the current study.

The Research Questions

The research question that was formulated from reflection on practice, which this researcher has laboured to answer, is: *How, and why have practices used to facilitate the birth of the placenta evolved in New Zealand?* To answer this question several subsidiary questions also needed to be answered: *What was the foundational knowledge of placental birth in New Zealand in the eighteenth and nineteenth centuries?* and: *What factors changed the foundational knowledge to create the practices that are used in today's world?*

A third subsidiary question established the touchstone for the thesis: *What factors facilitate optimal placental birth?*

⁹³⁰ F. Steier, *Research and Reflexivity*, p.8.

The touchstone is the theoretical model that enabled analysis of childbirth practices over time, over different physical locations, and within differing paradigms. Without the touchstone of the theoretical model it would not be possible to benchmark and offer a comparative analysis of such diverse and apposite childbirth knowledge and practices, ranging from those of eighteenth century Britain to those of twenty-first century New Zealand, from early Maori, prior to European settlement, to Maori living in a disrupted colonial world, and including the childbirth practices of the settlers themselves.

Each subsidiary question became the focus for a group of chapters; the first two chapters explained the study and provided the basis on which to formulate the theoretical model for the analysis of data. These chapters discussed why this topic was chosen, and introduced the concepts and ideas that underpinned the research question. A theoretical model was developed from criteria against which data could be measured. These were taken from the writings of Balaskas, Botha, Buckley, Odent, Naaktgeboren, and Uvnas-Moberg. The relevance of the concepts that underpin the criteria used in this study's theoretical model is reinforced by several recent publications which employ similar approaches, namely, the "psycho-physiological" placental birth identified in Fahy's 2009 writings⁹³¹ and Odent's newly published "*Childbirth in the Age of Plastics*".

The second group of chapters, Chapters Three, Four and Five, identified the foundational knowledge and context for birth in New Zealand, answering the first subsidiary question: *What was the foundational knowledge of placental birth in New Zealand in the eighteenth and nineteenth centuries?* These chapters identified and outlined the three knowledge streams that intertwined to form the foundational maternity knowledge of New Zealand. The three streams were those of traditional European and British midwifery knowledge and practices, Maori Birthing knowledge and practices, and medical midwifery knowledge and practices (later to become obstetrics).

The first two streams of knowledge from Maori and European settler women influenced each other but Maori practices may have altered settler practices more quickly in the changed

⁹³¹ K. Fahy, Third Stage of Labour Care for Women at Low Risk of Postpartum Haemorrhage.

context of a new land, and in isolation from settler generational knowledge. The lack of 'trained' midwives and medical care, exposure to Maori traditions and the demands of the new geographical and socio-economic environment of New Zealand changed traditional midwifery practice, in a manner that is likely to have improved it. There is evidence of very good midwifery outcomes, particularly in the respect given to midwives by the communities in which they dwelled. The findings of the present study suggest that further research into midwifery and medical childbirth practices in the period prior to the registration of midwives in 1904 is warranted. Even the Health Department comments from the early twentieth century show that medical practices, although well intentioned and sometimes necessary, were often not the best option for women. This conclusion concurs with the findings of Tew in regard to the British maternity context,⁹³² but the current research challenges the persistent dominant view across the history of NZ maternity that perceives medical practitioners as the safest option for birth attendant, in the present, and in the past.

Maori practices were also changed by exposure to settlers' and medical practices; Maori women, and their safe childbirth practices were impacted by the effects of colonisation. The researcher argues that Maori prior to European settlement were healthy and had such optimal birthing practices that they were likely to have had a low maternal mortality rate. The research demonstrates the impact of European settlement on the health of childbearing Maori women.

Medical maternity care was negligible in the early years of settlement but by the end of the nineteenth century was becoming a powerful force that would sweep away Maori and European traditional childbirth practices. The obstetric practices that were used in Britain, and imported to New Zealand by the medical profession, were not conducive to safe birthing when measured against the current study's theoretical model. Points for debate include postpartum haemorrhage (PPH), Maori birthing, and the safety of traditional midwifery in comparison with medical 'midwifery' in eighteenth and nineteenth century New Zealand.

The third group of chapters, Chapters Six, Seven, Eight and Nine, addressed the second subsidiary question: *What factors changed the foundational knowledge to create the practices*

⁹³² M. Tew, Safer Childbirth.

that are used in today's world? These chapters identified the influences and contexts over the nineteenth and twentieth centuries in which changes to childbirth practices occurred. They also examined experienced medical and midwifery practitioners' opinions on, and experiences of, placental birth.

This conclusion summarises and analyses the study findings, discussing their implications for midwifery practice and offering them as a contribution to midwifery knowledge.

Postpartum Haemorrhage: Cause or Cure?

Factors were identified from the data that would have impacted on the natural physiology of placental birth. Birth was originally a home-based family event with perhaps an experienced family member or neighbour helping in a midwifery role, and friends and family supporting the woman. Traditional practice prior to the eighteenth century did not appear to have been interventionist for normal birth. Most women birthed in upright positions; manual removal of the placenta and other internal manipulations were not common practices.

The study of British and European midwifery practice from the seventeenth and eighteenth centuries found evidence from their practice manuals that the writing around haemorrhage in childbirth was focussed on antenatal, rather than postnatal haemorrhage. Manual removal was performed on occasion by midwives, and was warned against because of the damage that it could cause to the woman's tissues.⁹³³ Discussion centred on the length of time a placenta could safely be retained by a woman. It was recognised that infection could be the result of a placenta retained for too long, and that 'floodings' could ensue because of infection. There was little discussion about primary postpartum haemorrhage, whether because severe PPH was considered inevitable and untreatable, or because it was not a commonly encountered problem, could not be established.

The traditional, often thought of as 'female' midwifery knowledge stream was analysed using the theoretical model. Negative factors identified in traditional European midwifery practice included the umbilical cord being clamped and cut prior to placental birth. Importantly, the

⁹³³ J. Sharp, in E. Hobby, Ed., *The Midwives Book*, p. 167.

baby was customarily cleansed, sometimes even purged with an aperient, and carefully swaddled; time consuming procedures that delayed mother-baby contact. Women, although usually upright, were not always able to instinctively choose positions for birth. It was noted that certain birth postures were common in different regions so a measure of maternal compliance to instruction or expectation was required. There is evidence in both Willughby and Sarah Stone's writings that midwives could be coercive and that some dictated posture, sometimes inappropriately.⁹³⁴ Not all midwives were benign; both the midwife Jane Sharp and the man-midwife Sir Percival Willughby lamented the suffering that women underwent at the hands of "ignorant torturing" (female) midwives.⁹³⁵

The knowledge stream of man-midwifery was also analysed using the theoretical framework. The practices of the man-midwives were varied, from the early practitioners such as Willughby in the early eighteenth century whose practice was closer to the female midwifery traditions, to those late in the eighteenth century, whose practice was far more interventionist. Man-midwifery had ousted traditional midwifery from the well-paying care of the wealthier sections of society, introduced forceps, and had begun to establish 'lying-in hospitals' by the end of the eighteenth century. By the nineteenth century man-midwifery had become medical midwifery or obstetrics, and had introduced and established horizontal birth. The term "being brought to bed" appears to have dated from this era.

Medical midwifery continued the customary practice of delayed mother-baby contact but wealthier women, more likely to be cared for by doctors, were also more likely not to breastfeed their babies, some having wet-nurses for this purpose, others using supplementary feeds of goats' milk, thin gruel or 'paps'. The use of early weaning and, for richer women, wet nurses would have increased the numbers of births per woman by reducing breastfeeding's contraceptive effect, thus putting them at risk of anaemia. The horizontalisation of birth, delayed mother-baby contact, reduced breastfeeding, and the potential for anaemia would

⁹³⁴ P. Willughby, *Observations in Midwifery*; S. Stone, *A Complete Practice of Midwifery*.

⁹³⁵ P. Willughby, *Observations in Midwifery*, p. 133.

render placental birth physiologically suboptimal for these women. Anaemia, if present, would exacerbate the effects of any haemorrhage experienced with the birth of the placenta.

Contemporaneous medical texts reflect an enormous interest in describing and managing placental birth, which became the focus of management techniques that included uterine pressure, uterine massage and umbilical cord traction. Invasive manipulations that involved insertion of a hand into the vagina or uterus had become common and would have contributed to puerperal sepsis becoming the leading cause of maternal mortality in the nineteenth century, an era when hygiene and sepsis were not understood. Cord traction and strong uterine massage were also instrumental in uterine inversion, or partially separated retained placenta, both potentially fatal complications.

The treatment of postpartum haemorrhage became a major medical interest. Treatments included the introduction of styptic substances such as lemons into the uterus to cause uterine contraction. Experiments were undertaken to try to understand the physiology of the medically labelled 'third stage of labour'. As noted earlier, this is in marked contrast to the female midwifery texts; for example Jane Sharp's midwifery manual, did not emphasise diagnosis or treatment for postpartum haemorrhage.⁹³⁶ Antenatal 'flooding', as from placenta praevia or placental abruption warranted far more attention, and 'postpartum haemorrhage' was not identified by name. Although European midwife Catharina Schrader lost women to PPH they were not women having normal labours.⁹³⁷

Careful search of the literature established that British and European seventeenth and eighteenth century female midwifery practitioners did not have the intense interest in the treatment of PPH that was displayed by the newer male midwifery practitioners. This suggests that for the female practitioners who continued to practice traditionally PPH was not a frequent occurrence.

⁹³⁶ E. Hobby, Ed., *The Midwives Book*.

⁹³⁷ H. Marland, *Mother and Child were Saved*.

One cannot avoid the speculation that the huge medical upsurge of interest in the prevention and treatment of PPH was a reaction to an increase in PPH numbers brought about by the interventions introduced by medical midwifery. When measured against the current study's theoretical model, it becomes obvious that the medical interventions of the nineteenth century were, at the least, counterproductive. In support of this contention are the comments of observers, including Charles White that

Although the poor were often half starved and served only by ignorant midwives, their maternal death rate might still be less than patients delivered in lying-in hospitals, or of the more affluent class attended by men.⁹³⁸

In the latter part of the nineteenth century, with more understanding of the causes of sepsis, and recognition that uterine massage could cause placental entrapment, methods of managing placental birth changed. The intrusive internal manoeuvres, such as manual removal of the placenta and cord traction, which could cause sepsis, and uterine inversion gave way to waiting for the placenta to separate, then externally expressing the placenta by using the contracted uterus as a piston. Knowledge about the physiology of placental separation increased with at least some clinicians acknowledging that the woman's horizontal position had the effect of slowing the physiological process.⁹³⁹ It was also realised that infant suckling stimulated uterine contractions.⁹⁴⁰ Unfortunately these realisations did not translate into changes in practice.

Medical midwifery had introduced horizontal birthing, continued the customary practice of delayed mother-baby contact and breastfeeding, and readily used invasive techniques such as manual removal of the placenta. From the eighteenth century to the present medicine has interfered in physiological placental birth. Although the introduction of reliable uterotonics in the form of syntocinon and ergometrine, and the introduction of actively managed birth are useful, and indeed lifesaving in the treatment of PPH, this research suggests that many women may have been unnecessarily put at risk of PPH because of the way labour and birth were

⁹³⁸ C. White, in J. Donnison, *Midwives and Medical Men*, p. 35.

⁹³⁹ A. Galabin, *A Manual of Midwifery*, p. 197; E. Tweedy, G. Wrench, *Practical Obstetrics*, p. 75.

⁹⁴⁰ J. Watson, *A Complete Handbook of Midwifery*; E. Tweedy, G. Wrench, *Practical Obstetrics*,

managed. The medical profession has always presented itself as rescuing woman from the risks of birth. This is a questionable claim in regard to placental birth.

The researcher argues that the introduction of horizontal birth, the delay in mother-baby contact and breastfeeding, and medical interventions to complete the birth of the placenta within a short time frame would have increased the incidence of postpartum haemorrhage. The intensive efforts of the medical profession to prevent and treat PPH were a response to that increase.

Optimal Maori Birthing Prior to Colonisation

Maori birth was supported by generational knowledge and practice. When measured against the theoretical model, Maori birthing prior to the nineteenth century, with healthy women bearing fewer children and remaining upright for birth, was non-interventionist, and was identified by the current study as physiologically optimal.

Maori women had to be fit and healthy to survive, which may have improved their childbearing abilities. They were at less risk of infection because internal manoeuvres such as manual removal of the placenta were unknown. The genitals were *tapu* and therefore untouchable. Maori women were less likely to have been at risk of retained placenta and haemorrhage because of their upright birth posture and reluctance to interfere with the natural birth process. Modesty was important and privacy was ensured by the use of the upright birthing position and the woman being alone, or with only a few family members in attendance. Birth took place outdoors or in a temporary shelter or *whare*. If a *tohunga* was called to assist with a birth, the assistance was usually provided in the form of *karakia* rather than any direct physical intervention. All material associated with the birth, including the *whare*, was burned, thus reducing the risk of infection.⁹⁴¹

Early mother-baby contact and breastfeeding facilitated the birth of the placenta and reduced the risk of PPH. Late menarche and also an inability to sustain babies on foods other than breast milk are attributed to the adequate, gritty and fibrous diet. The contraceptive effects of

⁹⁴¹ E. Best, *The Maori as He Was*; E. Best, *The Whare Kohanga*; Makareti, *The Old Time Maori*.

necessarily extended breastfeeding combined with late menarche are likely to have been causative factors for reduced family size. Genealogy and skeletal remains indicate pre-European settlement Maori had fewer children than post-colonial Maori,⁹⁴² thus the chances of fetal malpresentations and anaemia were reduced. All of these factors indicate that early Maori would have had a low maternal mortality rate. It is easy to romanticise successful early birthing. Some women would still have haemorrhaged, but perhaps relatively less than their European settler neighbours. However we also should consider, and not dismiss, the factors that made their birthing optimal.

Optimal Maori birthing was unfortunately not to continue, as Maori health and wellbeing suffered from the socio-cultural disruption brought about by colonisation. Maori, subject to all the ills induced by colonisation, were caught between survival of the old ways and “incomplete acceptance of certain aspects of the new ways.”⁹⁴³ Even while traditional practice continued, healthy birthing practices were undermined by Maori women’s poor health, poor nutrition, and increasing family size. Maori birthing was also being colonised by medical birthing. By the early twentieth century when registration of death became mandatory, Maori family size, and Maori maternal mortality had outstripped that of the settler women.⁹⁴⁴

The present study concludes that the Maori maternal mortality rate was likely to have been low prior to, and in the early years of European settlement. It is further maintained that the impact of colonisation caused a reversal of the low mortality rate as it climbed to unprecedented heights in the early twentieth century.

Aotearoa New Zealand Traditional Midwifery Practice

European birthing practices came to New Zealand with the early settlers, the majority of whom were British. British traditional birthing, when assessed using the theoretical model, was found to be less than optimal because of the customary delay in mother-baby contact, the dubious

⁹⁴² J. Metge, *The Maoris of New Zealand*; P. Houghton, *The First New Zealanders*.

⁹⁴³ R. Lange, *May the People Live*, p. 28.

⁹⁴⁴ R. Lange, *May the People Live*.

health status of many of the immigrant women, and the custom of lying-in. Their large family size, partly attributable to the common use of early weaning, is likely also to have increased levels of anaemia in women.

The knowledge of birthing brought to New Zealand by the settlers in the early nineteenth century varied immensely. In the early years there were very few doctors, but they increased in number during the century, based mainly in the urban areas. There were women with some 'scientific' nursing or midwifery education, like the early missionary wife, Marianne Williams, who made a particular effort to gain knowledge of nursing and midwifery prior to leaving her home for New Zealand in 1823.⁹⁴⁵ There were also traditional midwives who brought their customary practices into the 'mix', but most midwives were women, wives and mothers, with little or no education or experience, who became midwives through circumstance. They were usually untrained, and therefore not subject to the mores of generational knowledge, or to the influence of medicine.

This research has demonstrated that the original European traditional practice was altered and improved by the change in practitioners when it was transplanted to New Zealand. The fashion of horizontal birthing was more common among the wealthy and urban women. Upright birthing is recorded as being used by settler women and may have been imported by the rural or poorer immigrants. Birth position may have been influenced by local Maori or just have been instinctive.

Traditional birthing in nineteenth century New Zealand was reasonably non-interventionist and instinctive, so there is more likelihood of the mother remaining upright for the birth, and having early contact with the baby. Women's workload would require at least a shortening, if not removal of the expectation of 'lying in' for most women, and for some women and their midwives there would have been ignorance of lying in practices.

Exposure to Maori birthing traditions, and the lack of knowledge of suboptimal practices and potentially dangerous manipulations such as cord traction and manual removal of the placenta,

⁹⁴⁵ C. Fitzgerald, Ed., *Letters from the Bay of Islands*.

is likely to have improved traditional midwifery in New Zealand. It would be expected that untrained women would be more likely to support the woman's instinctive birthing behaviours and, lacking knowledge, would be less likely to have the confidence to attempt invasive manoeuvres such as manual removal of the placenta. The fact that traditional midwives in New Zealand were highly respected by their communities and had excellent outcomes is well documented.

All women in New Zealand were subject to change and geographic and socio-cultural dislocation; settler women, far from home and extended family support, had to create their own social networks. Isolation was a key underlying factor affecting childbirth for many women. Many settler women were living away from the towns, breaking in land for farms with their husbands, some at the gold-fields, but with roads nonexistent or rudimentary, their ability to access medical help was very limited. Maori also tended to live in the more remote areas, away from the new towns, enabling them to continue their traditional birthing until well into the twentieth century.

This research suggests that this isolation may have had its benefits as well as its undoubted risks. As already mentioned traditional midwives who served the rural areas were usually respected women. Midwives like 'Granny Harald' of Stewart Island used customary methods, such as having the mother kneel for birth, and had very satisfactory outcomes.⁹⁴⁶ Trained midwives and doctors were few in number and usually urban-based. Medical midwifery was advantageous in obstructed labour, where instruments were required, but it also had the potential to place women having normal labours at higher risk of sepsis, haemorrhage, and, because of the expectation that women would lie supine for hours, sometimes days after the birth, vascular thromboses. While there were competent doctors, in the nineteenth century medical training in obstetrics was very variable in quality, often just an optional extra.⁹⁴⁷

⁹⁴⁶ M. Banks, *Homebirth Bound*; J. Donley, *Save the Midwife*.

⁹⁴⁷ J. Donnison, *Midwives and Medical Men*.

Although practices used to birth the placenta by women attended by traditional midwives in nineteenth century New Zealand are hidden because they were not discussed, and are not recorded, there is evidence that birthing practices generally were a continuation of both Maori and Pakeha customary practice. Practices used by the medical profession, in contrast, were explicitly documented in textbooks and beginning to be documented in professional journals as case studies, and as analyses of practice statistics.

New knowledge of asepsis, and antisepsis, was only slowly accepted by the medical community and was not in universal use by 1900.⁹⁴⁸ Anaesthesia, in the form of inhalational ether and chloroform was useful in labour, and was of some use during manual removal of the placenta, but could cause uterine atony and predispose to postpartum haemorrhage. The rediscovered uterotonic drug, ergot, was very useful for treating and preventing postpartum haemorrhage but was unreliable, variable in its action, and could be fatal if used inappropriately. It is possible, if not probable, that the women having normal births in the rural areas, cared for by competent traditional midwives, may have had better outcomes than urban women.

This study concludes that prior to the hospitalisation of birth New Zealand women under the care of traditional midwives were likely to have had better birthing outcomes than those of urban women under the care of medical practitioners. It is suggested that this idea is worthy of further research.

What factors changed the foundational knowledge to create the practices that are used in today's world?

Chapter Six outlined and analysed the push toward medical control of midwifery, of birth, and of the uterus, that occurred in the early 1900s. Chapter Seven traced the development and universal adoption of the prophylactic use of active management of the third stage of labour, and Chapter Eight explained how physiological placental birth re-emerged as a birth option in response to women's demand for alternative birthing practices.

⁹⁴⁸ D. Dow, *Safeguarding the Public Health*.

Medically Managed Placental Birth

In the early years of the twentieth century a 'cause and effect' cycle of three synergistic and catalytic factors, medicalisation, hospitalisation and nursification produced clinical and political changes that created a weave into which changes to the management of the birth of the placenta could be woven. These three factors were to gain strength over the next decades but they were well established by 1930.

The first half of the twentieth century was characterised by the growing influence of the medical profession over birth. The Midwives Act 1904 placed midwifery, and thus maternity, under the control of medicine. The intention of medicine to control midwifery and to replace midwives with trained nurses was blatantly overt in medical literature. The medical profession needed to control midwives to control birth, and parallel to that need was their need to control the uterus. Hardy and Jellett both commented on the tendency of practitioners to hurry third stage. Baby suckling had been recognised as a potential prophylaxis for haemorrhage but drugs such as pituitrin, and ergot and its derivatives were preferred, and were beginning to be used prophylactically to prevent haemorrhage, while suboptimal factors including horizontal birth and lack of mother-baby contact remained unrecognised, becoming accepted as 'normal' as midwives learned medical childbirth practices.

Cord traction, implicated in an increase in uterine inversion, gave way to manual expression of the placenta, reducing the incidence of manual removal. Manual removal of the placenta and internal manoeuvres such as vaginal examinations had been recognised as contributing to the risk of puerperal sepsis. To avoid the internal manoeuvres that would increase the risk of maternal sepsis, expression of the placenta using Crede's or the Dublin method were adopted. These methods, however, also become implicated in causing uterine inversion if they were performed before the placenta had separated and if the uterus was not well contracted. Massage and kneading of the uterus had been identified as a contributory cause of retained placenta and haemorrhage, and were replaced by the gentle 'holding' of the uterus to prevent the uterus distending and to identify the separation of the placenta. Others advocated not

touching the mother's abdomen or the uterine fundus at all until after the placenta was separated, but this option did not become popular.

The majority of medical texts recognised that the uterus often rests for ten to twenty minutes following the baby's birth. This resting phase of the uterus was mentioned in many medical texts, and appeared to be an important factor in the normal physiological birth of the placenta, particularly after a long, exhausting labour. One obstetrician recommended resting the mother and giving her broth to restore some energy prior to attempting to 'deliver' the placenta. Retraction, not just contraction of uterine muscle was also identified as an important component of the physiology of placental parturition, and anaesthesia came to be recognised as a predisposing cause for PPH.

There seems to have been a loss of useful knowledge that occurred when the medical interest turned to the use of ecbolics and the shortening of the third stage of labour. One example of useful knowledge that was conveniently forgotten was the idea that uterus rests following the birth of the baby, and that after a long exhausting labour more time is likely to be required. While later research established that the placenta separates quickly after birth,⁹⁴⁹ expulsive contractions may be delayed, just as they are in some women following full dilation of the cervix. This is useful knowledge if one is practising physiological placental birth.

Also discarded in the flurry to shorten the third stage of labour was the knowledge of the benefits associated with delaying the tying of the umbilical cord. It was well known that babies benefited from the extra blood they received from the cord. Why and how did the cord blood that the baby would naturally receive suddenly become dangerous? How did this suddenly come about just when the medical profession discovered that they could shorten the birth process by using uterotonic drugs? The discarding and discrediting of knowledge that accompanied the introduction of the active management of third stage is an interesting historical question that would be worthy of research.

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The uterotonic drugs pituitrin and ergot and its derivatives were used, routinely in some areas, to maintain uterine contraction after the birth, and to treat PPH. Berkeley, in 1911, had recommended the prophylactic use of uterotonics (ergot) in the second stage of labour, “with the crowning of the head”,⁹⁵⁰ but most textbooks instructed that uterotonics should not be given prior to the birth of the placenta. Ergot and pituitrin began to be used to shorten the third stage of labour to prevent PPH, but the drugs were not reliable, being variable in action, and pituitrin, a natural oxytocin from animal sources, could cause anaphylactic shock. The discovery of ergometrine in 1935 gave medicine a powerfully effective, reliable uterotonic. The later production of a synthetic form of oxytocin ‘syntocinon’ solved the problem of unexpected anaphylaxis. The discovery of these reliable uterotonics gave medicine the tools with which to treat PPH or attempt to prevent PPH by shortening the process of placental birth.

The studies that were undertaken in the 1940s and 1950s, such as those by Grimes, and Daley, that examined the effects of ergometrine and oxytocin, establishing dosages and how and when the drugs were best administered were not optimal, and would today be considered questionable. The research was not carried out on populations of labouring women that we would consider as healthy women having spontaneous, normal labours. One could even question whether such a population would actually have been available in that era of high medical intervention. The manner in which placental birth occurred, with women disempowered and unable to control their birthing, lying supine in unfamiliar places, unsupported by family and separated from their babies was likely to increase the incidence of PPH.

Not only were the suboptimal physiological factors such as horizontal birthing positions and delayed mother-baby contact in place, but the research population was subjected to anaesthesia or strong sedation using drugs, such as paraldehyde, to instrumental deliveries, and mandatory episiotomies. Even though the result of one research project showed significant results from the use of actively managed placental birth using syntocinon or ergometrine to shorten the third stage of labour and reduce blood loss, the benefits were only for women

⁹⁵⁰ C. Berkeley, *The Difficulties and Emergencies*, p. 265.

having their first babies. There was no significant result shown for multiparous women, and IV ergometrine “occasionally produced noticeable cyanosis of the chest, neck, head and arms”.⁹⁵¹ These negative factors were ignored, and the recommendation was made that the drugs be used for all births.

Shortening the third stage was perceived as desirable. It would preclude the “meddling” from impatient practitioners that had been identified by Hardy, Jellett, and Embrey as a major cause of PPH. It would shorten the time that busy or tired doctors would need to remain with ‘patients’. At a time when new drugs such as insulin were responsible for what seemed miraculous cures in medicine, the medical profession enthusiastically embraced the prophylactic use of active management of the third stage of labour, despite the misgivings of a few practitioners.

Following the British Ministry of Health Report of 1955 – 1957 on maternal mortality⁹⁵² that identified PPH as a problem, active management was strongly promoted in NZ by influential teachers such as Professors Bonham and Seddon as the way to reduce PPH. By the 1970s, active management of the third stage of labour was established throughout the country. Natural birth without intervention was extinct in New Zealand, as was the natural, physiological birth of the placenta.

The current study has demonstrated that the evidence used to support the introduction of actively managed placental birth was questionable, and that it was not relevant to normal healthy women having spontaneous, normal labours. It is also suggested that research into the resting phase of the uterus following the birth of the baby would be useful to our understanding of physiological birth, and that historical research into the apparently sudden change of status (from beneficial to dangerous) of the baby’s cord blood at a time when drug controlled placental birth required early tying and cutting of the cord, would further contribute to understandings of optimal birthing practices.

⁹⁵¹ W. Grimes, A Comparison of Intravenous oxytocin and Ergonovine, 1949, p. 350.

⁹⁵² The British Ministry of Health Report on Confidential Enquiries into Maternal Deaths 1955 – 1957.

A further contention is that medical practitioners attempting to shorten the time required for placental birth, combined with the suboptimal position of the women and the lack of mother-baby contact, predisposed women to PPH and therefore were contributory reasons for the introduction of active management.

Analysis of the Oral History Data

Chapter Nine focused on the opinions and experiences of participants expressed in the oral history interviews. Three themes for discussion were identified; midwifery resistance to the pathologisation of birth, hybrid practice, and the benefits of physiological placental birth.

Resistance to the Pathologisation of Birth

Efforts to change practice for the benefit of women were made by midwives using responsible subversion, demonstrating the institutionalised constraints that midwives had to contend with in their practice in the health system prior to 1990. Women had become patients to be controlled, treated and nursed. Pregnancy and birth had come to be perceived as disease states. Consumer demand for change enabled a small group of midwives to return to domiciliary practice and begin to rediscover normal birthing. They commented that they learned from the women, and from each other. Over the next decades increasing numbers of women and midwives utilised physiological birthing as an option that they came to consider healthier and safer than the medical alternative.

It took time for midwives practising alternative birthing to unlearn their medicalised training and regain their trust in women's ability to birth. The reintroduction of midwifery autonomy and the passing of legislation concerning consumer choice and consent in health care facilitated the introduction of alternative midwifery practices into hospitals, exposing more midwives and doctors to physiological placental birth.

The opinions and practice preferences of the participant medical and midwifery practitioners demonstrated the division between the medical, and the midwifery birthing paradigms. Practitioners' ideas and thoughts about the management of placental birth and their experiences with it were the focus of the data from the oral histories.

It was found that although there are many influences on practitioners' views on the best way to manage the birth of the placenta the most important was the exposure to different elements of birthing in different environments. The currently practising obstetricians stated that they were highly influenced by research, particularly meta-analyses, but it was clear that their belief and their immersion in actively managed third stage was strengthened by their exposure to abnormal birthing and maternal death from PPH. This is, of course, understandable. Ken Clark noted that being constantly exposed to birth complications must affect obstetricians' attitudes. Graeme Sharp, the retired obstetrician, commented that he saw little normal birthing in his training. Jim Hefford was influenced by the teaching he received, from both midwives and from obstetricians, but he kept 'up to date' by attending workshops and reading. He was willing to try alternatives. Like the midwives, he was exposed to more normal birth than the obstetricians. A number of midwives, and both currently practising obstetricians expressed concern that hybrid practice was a risk factor for PPH.

All of the midwife participants in the study had been in practice for at least twenty years, some much longer. Although they could be anxious about potential PPH, they saw enough successful, healthy birthing to prevent high anxiety levels around placental birth. They expected the normal, and gained confidence in women's ability to birth normally. They noted, however, that in the risk-averse climate of hospital practitioners could become very anxious. Marama recounted that she sometimes needed to reassure practitioners, to prevent them from intervening, because they would view normal blood-loss as pathological.

The midwives perceived overseas research as not necessarily relevant to their practice because of where and how the research had been carried out. They were influenced strongly by their colleagues and by the women they cared for. Active management had been used by at least half of the practitioners confidently and over many years, however, a large proportion of the midwives professed acquiring a preference for physiological placental birth in well women having normal healthy labours.

The research participants had been taught various methods of managing placental birth, but had all been exposed to active management. Several midwives, when they could, avoided its

use believing the older method of watching for signs of separation was gentler on the women and less likely to cause complications such as avulsed cord or uterine inversion. An unanticipated finding of the present study was that such a large group of participants expressed preference for physiological placental birth. Nor was it expected that so many midwives would have been exposed to physiological placental birth. While some bias toward the researcher's birth philosophy might be expected it did not appear to be a causative factor in the midwives' preference for physiological placental birth. The midwives were able to identify what aspects of physiological third stage they preferred, and those midwives who were more ambivalent, or preferred actively managed placental birth freely expressed those preferences.

Hybrid Practice

Hybrid Practice⁹⁵³ was condemned by a number of medical and midwifery practitioners. Both Ken Clark and Digby Ngan Kee had seen severe PPH when hybrid practice had been used. However, it also became clear from the interviews that hybrid practice is commonly used. Margaret Wilton had never seen the placenta born before the cord was cut. The midwives who had progressed to using true physiological placental birth had all passed through stages where they had delayed cord clamping and given the ecbolic late, or had used cord traction when they had observed definitive signs of separation. It is possible, therefore, that hybrid practice is not necessarily a causative factor, but possibly labelled so in the absence of any obvious cause. Most practitioners, however, also believed that interference in the natural process could predispose toward PPH, so neither can hybrid practice be excluded as a contributing factor for PPH.

Begley, in her Cochrane Review, commented that research is needed to establish which elements of active management are important.⁹⁵⁴ It may be that with an upright woman who is at risk of uterine atony only the use of an ecbolic is necessary to reduce her risk of PPH. Gravity may be safer than controlled cord traction. It is equally possible that with a supine woman controlled cord traction may be required. This could be done following a delay to allow the

⁹⁵³ See Chapter Nine for discussion of Hybrid Practice.

⁹⁵⁴ C. Begley, G. Gyte, et al., Active versus Expectant Management.

baby to receive the cord blood, after signs of placental separation, or following an ecbolic injection to prevent entrapment of the placenta in the uterine lower segment because of maternal position.

Further research is needed to establish the essential components of active management. The researcher also suggests that it would be useful to establish whether the process of clinical decision making for placental birth requires tailoring to each individual woman's clinical requirements rather than assuming that 'one size fits all'.

The Benefits of Physiological Placental Birth

The midwives cited as a benefit of physiological placental birth, a gentler, slower transition to extra-uterine life for the baby. They believed the baby should receive the extra blood and stem cells that would be received in nature, and that the baby benefits from better and earlier breastfeeding, an improved immune system, better thermoregulation, and improved maternal-baby bonding. History and midwifery experience⁹⁵⁵ suggests that not cutting the cord immediately may support the baby and lessen resuscitation requirements. Delaying cord clamping helps to prevent infant anaemia and depriving the baby of a rich supply of its own stem cells has unknown consequences. The WHO recommends a short delay but practitioners seem reluctant to change their practice. Research into why practitioners find it difficult to change practice could be a useful project.

Evidence shows that in New Zealand midwifery practice, in normal births with healthy women, there is more blood loss associated with active management of the third stage of labour.⁹⁵⁶ Universal understanding of the physiological placental birth by midwifery and medical practitioners has therefore the potential to further lower PPH rates. The proponents of physiological placental birth believed PPHs were less and this is supported by the New Zealand College of Midwives research,⁹⁵⁷ but midwives also believed that there were other, less tangible

⁹⁵⁵ D. Holland Oral History Audiotape.

⁹⁵⁶ For further information on this, see: New Zealand College of Midwives; *Third stage management practices of midwife lead maternity carers*.

⁹⁵⁷ New Zealand College of Midwives, *Third stage management practices of midwife lead maternity carers*.

rewards for mothers who used physiological placental birth. While some midwives expressed the need to consider context and clinical factors in deciding on the manner of placental birth, a number of midwives saw physiological placental birth as safer than active management. They perceived active management as a treatment rather than as the normal routine birthing procedure. They wished to uphold the midwifery imperative to protect normal birthing.

The only choices there are, are either healthy birthing or unhealthy birthing, and to use these strategies [active management] where it's not necessary is to create unhealthy birthing. I don't offer it as an option. It's not an option. It's a medical treatment for haemorrhage.⁹⁵⁸

Research into the history of the birth of the placenta in New Zealand has provided information that casts doubt on the medical conviction that actively managing placental birth is the safest option for healthy normal women having spontaneous normal births.

Factors that optimise each woman's ability to birth her placenta physiologically were identified and presented as a theoretical model against which maternity practices were measured. The provision of a birthing environment and maternity care that supports physiological placental birth has the potential to reduce PPH. But physiological placental birth has been shown to provide more benefits for mothers and babies than simply preventing PPH.

The researcher argues that physiological placental birth has health benefits for mothers and babies and should be routinely used where the woman is healthy and the pregnancy and labour are spontaneous and normal. It is further argued that active management of placental birth should be used when a clinical decision is made that physiological placental birth is inappropriate, but as a treatment rather than a birth 'option'.

The theoretical model of factors facilitating optimal placental birth was created as an analytical tool but is also offered as a potentially useful aid for clinical decision making in regard to the management of placental birth. It is suggested that the factors that facilitate optimal physiological placental birth could be used to support placental birth whether physiological or actively managed. Teaching practitioners to perceive placental birth as not merely a

⁹⁵⁸ M. Banks, Oral History Audiotape.

“mechanical” event⁹⁵⁹ has the potential to reduce PPH rates. The techno-rational perspective on birthing the placenta is not supported by the literature used to develop the theoretical framework for the current research. Believe in birthing as a mechanical event demonstrates an alarming lack of knowledge of natural, physiological birth, and the links between a woman’s feelings and her body’s hormonal dynamics, by some current maternity practitioners.

Contributions of the Present Study

The fact that the researcher is a midwife may be perceived as a weakness in that it invites claims of bias. I have placed myself as a reflexive researcher within the study. This placement, in direct contact with the participants, and the written source material “makes the subjectivistically-inclined sociologist less prone to indulge in those all-encompassing and arrogant visions of social life that place the scientist in a position of divine mind.”⁹⁶⁰ The immersion in the source material, the discussion that occurred with midwifery peers put me in a situation where I could not be totally objective and search for only one truth. The theoretical model used for analysis is based on recent evidence. Analysis of the data has been moderated through that model, so that the analysis and the conclusions will stand up to critique.

That the researcher is a midwife is also a strength in that it provides an “insider” status to the research. A researcher from another discipline would not be likely to research such a topic, and would not have researched it with the knowledge and understanding of both hospital and homebirth practices and physiology. A history of the management of the birth of the placenta fills a significant void in midwifery and medical history. The only other historical research on the topic found was focussed on the development of uterotonic drugs.

A significant strength of the present study is the broadness and depth of the research undertaken. Changes to clinical practice had to be analysed in relation to their relevant contexts and this necessitated a widened and deepened approach as the research progressed. A related strength is the volume and variety of written and oral sources that have been used as sources for the present study. As a result, a number of areas that would warrant future

⁹⁵⁹ An obstetrician informed the researcher in 2009 “The third stage is purely mechanical”.

⁹⁶⁰ P. Bourdieu, *Vive la crise! For heterodoxy in social science*, p. 782.

research have been identified. For example, while the omission of consumer voices in this study was regrettable, it was unavoidable, and research into women's experiences of placental birth presents as an important and worthy project for the future.

A significant contribution this thesis makes to midwifery research is the theoretical model. This has been a benchmarking tool that has been useful across a wide range of contexts, differing settings, including homebirth and hospital, and over centuries. It will have a wide range of applications in teaching, clinical decision making and birth planning. Although it is appropriate for placental birth, it could also be used in relation to labour and the birth of the baby.

Another significant contribution of the present study is the collection of data in support of the concept of physiological birth as safe and beneficial. This will be a useful resource for midwives, and for researchers, as will the collection of participant oral history audiotapes

The researcher presents a historical analysis of the management of the birth of the placenta in New Zealand. It fills an empty space in midwifery and medical historical knowledge. Further research into the history of childbirth in the nineteenth century would improve our knowledge. It is also suggested that oral history research into the experiences of our older, maternity practitioners would improve our knowledge of actual midwifery and medical practice as information from textbooks does not give a full picture because of the diversity of the people at the 'coalface'.

This mixed method historical research analysed the evolution of the management of placental birth in New Zealand, using both written material and topical oral history interviews. Comparative obstetrics, endocrinological and physiological research medical and midwifery texts provided factors used to establish a theoretical model of optimal placental birth. This theoretical model is offered as a potential aid for decision-making around placental birth in clinical midwifery practice, as an aid for teaching students and practitioners, and as a discussion point for midwives and women when discussing birth plans.

Placental birth, as an object of study, cannot be separated from the birth continuum. Nor can birth be separated from its cultural and physical environment. Therefore this research not only

examined placental birth, but also birth, and the context in which it occurred over time. The research identified and analysed three knowledge streams that merged to form the foundational birthing knowledges and practices in the new colony of New Zealand. These included traditional European-British midwifery, the newer influential medical midwifery that was to become obstetrics, and the pre-existent childbirth practices of Maori.

Differences in practices between British traditional midwifery and medical midwifery suggest that medical practices may have increased the risks of haemorrhage and sepsis associated with placental birth, thus requiring medicine to introduce measures to 'control' the uterus. This topic warrants further research.

The researcher argues that nineteenth century Maori had optimal birthing practices that would have ensured a low maternal mortality. Further, the research shows that, in response to the geographical, cultural, and socio-economic dislocation induced by European settlement, this was to change to the very high maternal mortality rate evident in the early twentieth century.

Nineteenth and twentieth century birth practices are analysed using the theoretical framework. Traditional midwifery practices in Aotearoa New Zealand, both Maori and European, were colonised by medicine over the twentieth century. Physiological placental birth appears to have become extinct until its re-emergence with the swing back to homebirthing in the 1970s. Women and midwives relearned natural birthing from each other, influenced by international literature, but were constrained to use active management for placental birth within the hospital maternity system. The return of midwifery autonomy in 1990 facilitated the reintroduction of natural placental birth to the hospitals.

There is division between the medical birthing paradigm and that of midwifery. In this research the medical men interviewed demonstrated this with their preference for the medical management of 'the third stage of labour'. This division appears to be exacerbated by the amount of exposure to complications and the tragedies of maternal and infant mortality that the doctors are exposed to, compared to the normality of birth that the midwives, particularly the homebirth midwives experience. Interestingly the only midwife with a strong preference for medically managed placental birth was a midwife who worked for many years in a tertiary

hospital, with little exposure to physiological birthing. The oral history audiotapes from the current study are offered as a resource for future historical researchers.

Natural, physiological placental birth is rare in the developed world where medicine has provided an alternative method to 'deliver' the woman of her placenta and its appendages. In Aotearoa New Zealand increasing numbers of midwives are providing women who have experienced normal pregnancies and normal spontaneous labours with the choice of physiological placental birth. Midwifery practitioner voices from this study demonstrated a preference for physiological placental birth, with the interviewed midwives recognising its benefits. There is evidence that, used in this context, natural physiological placental birth is safe and provides long-term advantages for both women and their babies. Ongoing research is needed to provide further evidence.

The researcher argues that no research has previously compared this study's holistic model of physiological placental birth with medically managed methods of 'delivering' the placenta.⁹⁶¹ The study also argues that this physiological model of placental birth should be the 'norm' with the medical model of placental birth being offered only when factors are present that do not facilitate optimal placental birth. This is seen as having the potential to lower the postpartum haemorrhage rate, and confer added benefits on mother and baby, for example, improved breastfeeding and mother-baby attachment. Further research should be undertaken to establish the benefits of physiological placental birth.

To finish, the thesis offers the words of obstetrician Henry Jellett, as valid today as they were in 1922. He also recommended physiological birthing, recognising the need for practitioners not to interfere in the natural birth process.

Labour is a physiological process, under normal conditions, until we interfere with its course. Such interference turns it into a pathological process, where complications of all kinds jostle one another for predominance.⁹⁶²

⁹⁶¹ K. Fahy, *Third Stage of Labour Care for Women at Low Risk*; C. Hastie, K. Fahy, *Optimising psychophysiology in third stage of labour*.

⁹⁶² H. Jellett, *Maternal Mortality*, pp. 37, 38.

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Appendices

Appendix I

Ethics

1. Ethics Approval
2. Ethics Extension
3. Ethics Application



Massey University

23 July 2007

Ms Jane Stojanovic
School of Health Sciences
PN351

OFFICE OF THE ASSISTANT
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Dear Jane

Re: HEC: Southern A Application – 07/35
An exploration of the management of the birth of the placenta in New Zealand from an historical perspective

Thank you for your letter dated 21 July 2007.

On behalf of the Massey University Human Ethics Committee: Southern A, I am pleased to advise you that the ethics of your application are now approved. Approval is for three years. If this project has not been completed within three years from the date of this letter, reapproval must be requested.

If the nature, content, location, procedures or personnel of your approved application change, please advise the Secretary of the Committee.

Yours sincerely

Mr Paul Green, Acting Chair
Massey University Human Ethics Committee: Southern A

cc A/Prof Cheryl Benn
School of Health Sciences
PN351

Prof Margaret Tennant, Dean
Graduate Research School
PN713

Massey University Human Ethics Committee
Accredited by the Health Research Council

4.  Ethics Extension



MASSEY UNIVERSITY

25 November 2010

Ms Jane Stojanovic
School of Health and Social Services
PN371

Dear Jane

Re: HEC: Southern A Application – 07/35
An exploration of the management of the birth of the placenta in New Zealand from an historical perspective

Thank you for your letter dated 4 November 2010 outlining the changes you wish to make to the above application.

The changes have been approved and noted, as follows:

1. An extension of time period for data collection up to 23 December 2010;
2. Inclusion of one additional participant.

If the nature, content, location, procedures or personnel of your approved application change, please advise the Secretary of the Committee. If over time, more than one request to change the application is received, the Chair may request a new application.

Yours sincerely

Prof Julie Boddy, Chair
Massey University Human Ethics Committee: Southern A

cc A/Prof Cheryl Benn Prof Steve LaGrow, HoS
School of Health and Social Services School of Health and Social Services
PN371 PN371

Massey University Human Ethics Committee
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Human Ethics Application

FOR APPROVAL OF PROPOSED RESEARCH/TEACHING/EVALUATION INVOLVING HUMAN PARTICIPANTS

(All applications are to be typed and presented using language that is free from jargon and comprehensible to lay people)

SECTION A

1. Project Title

An exploration of the management of the birth of the placenta in New Zealand from an historical perspective

Projected start date _____
for data collection 1/07/2007 Projected end date 1/07/2008

In no case will approval be given if recruitment and/or data collection has already begun.

2. Applicant Details (Select the appropriate box and complete details)

ACADEMIC STAFF APPLICATION (excluding staff who are also students)

Full Name of Staff Applicant/s _____
School/Department/Institute _____
Campus (mark one only) Albany Palmerston North Wellington
Telephone _____ Email Address _____

STUDENT APPLICATION

Full Name of Student Applicant Jane Ellen Esther Stojanovic
Employer (if applicable) Massey University
Telephone 06 3648890 Email Address Jane.Stojan@xtra.co.nz
0274747428
Postal Address 36A Bell St. Otaki
Full Name of Supervisor(s) Assoc. Professor Cheryl Benn, Professor Margaret Tennant,
Professor Nicky Leap (external)
School/Department/Institute Health Sciences (Midwifery)
Campus (mark one only) Albany Palmerston North Wellington
Telephone 2543 Email Address C.A.Benn@massey.ac.nz

GENERAL STAFF APPLICATION

Full Name of Applicant _____
Section _____
Campus (mark one only) Albany Palmerston North Wellington
Telephone _____ Email Address _____
Full Name of Line Manager _____

3. Type of Project (mark one only)

Staff Research/Evaluation:
Academic Staff
General Staff

Student Research:
Qualification
Credits Value of Research

If other, please specify:

4. Summary of Project

Please outline in no more than 200 words in lay language why you have chosen this project, what you intend to do and the methods you will use.

(Note: all the information provided in the application is potentially available if a request is made under the Official Information Act. In the event that a request is made, the University, in the first instance, would endeavour to satisfy that request by providing this summary. Please ensure that the language used is comprehensible to all)

Maternity practitioners hold strong and often divergent views about optimum practice for facilitating the birth of the placenta. My intention is to illuminate the evolution of maternity practices used in New Zealand using historical inquiry methods including topical oral history interviews with up to twenty maternity practitioners. By interviewing and audio-taping midwifery and medical practitioners, including retired and current practitioners, I plan to describe the development of practices and practice beliefs involved in facilitation of the birth of the placenta in New Zealand.

The oral history audio-tape data will be summarised, analysed and archived, providing the primary data for the thesis. Written material will provide further information from primary and secondary sources to aid in tracing the evolution of practices and support analyses from the oral testimonies.

5. List the Attachments to your Application, e.g. Completed "Screening Questionnaire to Determine the Approval Procedure" (compulsory), Information Sheet/s (indicate how many), Translated copies of Information Sheet/s, Consent Form/s (indicate of how many), Translated copies of Consent Form/s, Transcriber Confidentiality Agreement, Confidentiality Agreement (for persons other than the researcher / participants who have access to project data), Authority for Release of Tape Transcripts, Advertisement, Health Checklist, Questionnaire, Interview Schedule, Evidence of Consultation, Letter requesting access to an institution, Letter requesting approval for use of database, Other (please specify).

1. Completed "Screening Questionnaire to Determine the Approval Procedure" (1)
2. Advertisement (1)
3. Letter to prospective participants (1)
4. Information sheet (2)
5. Consent to participate form (1)
6. Interview guide (1)
7. Consent to archive audio-tape form (1)

Applications that are incomplete or lacking the appropriate signatures will not be processed. This will mean delays for the project.

Please refer to the Human Ethics website (<http://humanethics.massey.ac.nz>) for details of where to submit your application and the number of copies required.

SECTION B: PROJECT INFORMATION

General

I/we wish the protocol to be heard in a closed meeting (Part II). Yes No
(If yes, state the reason in a covering letter)

Does this project have any links to other MUHEC or HDEC application/s? Yes No

If yes, list the MUHEC or HDEC application number/s (if assigned) and relationship/s.

Is approval from other Ethics Committees being sought for the project? Yes No

If yes, list the other Ethics Committees.

For staff research, is the applicant the only researcher? Yes No

If no, list the names and addresses of all members of the research team.

Project Details

State concisely the aims of the project.

The aims of the study are to increase midwifery knowledge about the management of the birth of the placenta in New Zealand and provide archival historical evidence for future research.

Give a brief background to the project to place it in perspective and to allow the project's significance to be assessed. (No more than 200 words in lay language)

Currently there is polarisation of maternity practitioners' beliefs and levels of understanding of the differing practices for managing the birth of the placenta. Understanding our history helps us to put change into perspective and increases our knowledge of the contextual issues that brought about change. Illuminating the evolution of the differing practices involved in facilitating the birth of the placenta will improve practitioners' understanding of the process and other's viewpoints thus contributing to midwifery knowledge. Improving practitioners' knowledge of the topic may help midwives to facilitate women's ability to exercise informed choice in childbirth and could, potentially, lower the incidence of post-partum haemorrhage by improving maternity practice.

Outline the research procedures to be used, including approach/procedures for collecting data. Use a flow chart if necessary.

Established Oral History methods will be used to collect and analyse data. Participants will be purposefully chosen to include a range of experiences from a range of practice contexts (e.g. homebirth and hospital, medical and midwifery). I have experience in, and knowledge of, the maternity environment in New Zealand and by using my maternity networks I should be able to identify a number of prospective participants with relative ease.

A letter offering the choice to participate, accompanied by the information sheet will be sent to identified potential participants. If there is no response within a week it will be followed with a phone-call, letter, or e-mail, to confirm whether they have received it and whether they require further information. If I do not get an adequate response I will place an advertisement in NZ medical and/or midwifery journals asking for potential participants to contact me. When contacted I will send them the letter of invitation to participate and the information sheet as previously described.

There will be two consent forms used. The first involves consent for the interview, and the identification (or not) of the participant and will be signed prior to the interview. The second will involve consent for the archiving of the material collected and allows the participant to place conditions on access to the audio-tapes when archived. It will be signed following the interview so that the participant can assess what is on the audio-tape prior to giving permission for access to it.

The consent forms are based on the templates suggested by the National Oral History Association of New Zealand (NOHANZ) Code of Ethical and Technical Practice (templates attached to this application) and the Massey University templates.

-
- 13 **Where will the project be conducted? Include information about the physical location/setting.**

Where-ever participants reasonably choose to be interviewed within New Zealand.

-
- 14 **If the study is based overseas, specify which countries are involved. Outline how local requirements (if any) have been complied with.**

N/A

-
- 15 **Describe the experience of the researcher and/or supervisor to undertake this type of project?**

I have undertaken oral history research when I was a Masters student at Victoria University of Wellington, prior to 2003.

-
- 16 **Describe the peer review process used in assessing the ethical issues present in this project.**

I have discussed the ethical issues with my supervisors and with Dr. Julie Boddy of the School of Health Sciences. They were also presented at the School of Health Sciences PhD School to other PhD students for comment, and during the PhD confirmation process I presented to other members of staff of the School of Health Sciences at Turitea and requested comment. Martin Wood and Dr. Gretchen Good of the School of Health Sciences have also peer reviewed this application.

Participants

- 17 **Describe the intended participants.**

Midwives, general practitioners and obstetricians either currently practising or retired, who have practised in maternity in New Zealand for at least fifteen, but preferably twenty, years.

-
- 18 **How many participants will be involved?**

Twenty

What is the reason for selecting this number?

(Where relevant, attach a copy of the Statistical Justification to the application form)

This is a large enough number to provide for differing perspectives and experience but not so large as to provide an unmanageable amount of information for analysis.

19 Describe how potential participants will be identified and recruited?

I will identify potential participants through my maternity services networks. I will send letters of invitation to practitioners that have been identified as fitting the criteria. If necessary I will insert an advertisement in NZ medical and/or midwifery journals asking practitioners to contact me if they would like to participate.

20 Does the project involve recruitment through advertising? Yes No
(If yes, attach a copy of the advertisement to the application form)

21 Does the project require permission of an organisation (e.g. an educational institution, an academic unit of Massey University or a business) to access participants or information? Yes No

If yes, list the organisation(s).

(Attach a copy of the request letter/s). e.g. letter to Board of Trustees, PVC, HoD/I/S, CEO etc to the application form. Include this in your list of attachments (QS). Note that some educational institutions may require the researcher to submit a Police Security Clearance)

22 Who will make the initial approach to potential participants?

The researcher

23 Describe criteria (if used) to select participants from the pool of potential participants.

I will be looking for a balanced mix of medical and midwifery practitioners (preferably even numbers) and also a reasonably balanced mix of practitioners who have practised in different practice contexts, such as hospital and homebirth. I will also be looking for older practitioners so that I can gather information pertaining to the longest possible time period.

24 How much time will participants have to give to the project?

Between 1 – 2 hours each.

Data Collection

25 Does the project include the use of participant questionnaire/s? Yes No
(If yes, attach a copy of the Questionnaire/s to the application form and include this in your list of attachments (QS))

If yes: i) indicate whether the participants will be anonymous, (i.e. their identity unknown to the researcher). Yes No

ii) describe how the questionnaire will be distributed and collected.

(If distributing electronically through Massey IT, attach a copy of the request letter to the Director, Information Technology Services to the application form. Include this in your list of attachments (Q5))

26 Does the project involve observation of participants? If yes, please describe. Yes No

27 Does the project include the use of focus group/s? Yes No

(If yes, attach a copy of the Confidentiality Agreement for the focus group to the application form)

If yes, describe the location of the focus group and time length, including whether it will be in work time. *(If the latter, ensure the researcher asks permission for this from the employer).*

28 Does the project include the use of participant interview/s? Yes No

(If yes attach a copy of the Interview Questions/Schedule to the application form)

Schedule attached

If yes, describe the location of the interview and time length, including whether it will be in work time. *(If the latter, ensure the researcher asks permission for this from the employer).*

The location for the interview will depend on the participant's preference and is likely to be in the participant's home or another place of their choice. The interview will last between 1 and 2 hours and will not be in the participant's work time.

29 Does the project involve audiotaping? Yes No

30 Does the project involve videotaping? Yes No

(If agreement for taping is optional for participation, ensure there is explicit consent on the Consent Form)

31 If taping is used, will the tape be transcribed? Yes No

If yes, state who will do the transcribing.

(If not the researcher, a Transcriber's Confidentiality Agreement is required – attach a copy to the application form. Normally, transcripts of interviews should be provided to participants for editing, therefore an Authority For the Release of Tape Transcripts is required – attach a copy to the application form. However, if the researcher considers that the right of the participant to edit is inappropriate, a justification should be provided below)

In Oral History research the audiotape is summarised rather than transcribed. The audiotapes will be summarised by the researcher.

32 Does the project require permission to access databases? Yes No

(If yes, attach a copy of the request letter/s to the application form. Include this in your list of attachments (Q5))

(Note: If you wish to access the Massey University student database, written permission from Director, National Student Relations should be attached)

33 Who will carry out the data collection?

The researcher – Jane Stojanovic

SECTION C: BENEFITS / RISK OF HARM (Refer Code Section 3, Para 10)

34 What are the possible benefits (if any) of the project to individual participants, groups, communities and institutions?

The participants may appreciate being asked to contribute to the historical knowledge of their professions and may enjoy the interview. Midwives who are currently practising would gain a certificate for their professional portfolio to acknowledge participation in research thus gaining points toward the Midwifery Council's recertification process.

35 What discomfort (physical, psychological, social), incapacity or other risk of harm are individual participants likely to experience as a result of participation?

There is the possibility of discomfort due to remembering difficult or traumatic situations, but generally no discomfort is anticipated. There is also a very slight possibility of harm to reputation if the participant reveals poor practice, however, this risk will be managed by checking the audiotape with the participant prior to any release of information, and taking care not to use such information or to use it in a such a manner that identification is not possible.

36 Describe the strategies you will use to deal with any of the situations identified in Q35.

Selection of participants would exclude any practitioner who is known to be the subject of any professional disciplinary proceedings or any situation which could cause distress or make the practitioner vulnerable to ongoing difficulties. I believe that most practitioners who would be in this situation would choose not to participate but if distress occurred I would stop the tape and allow the participant to express their feelings which may help. If desired the participant may change the subject under discussion or decide not to continue participation. Counselling may be facilitated by the researcher if desired by the participant.

37 What is the risk of harm (if any) of the project to the researcher?

I would take a common sense approach to minimise my exposure to any risk situations which could be incurred, such as travel, dogs, etc. I do not visualise any harm arising from this research.

38 Describe the strategies you will use to deal with any of the situations identified in Q37.

Members of my family will be kept aware of my plans and communication with my supervisor will be maintained so that any concerns can be shared.

39 What discomfort (physical, psychological, social) incapacity or other risk of harm are groups/communities and institutions likely to experience as a result of this research?

None expected

40 Describe the strategies you will use to deal with any of the situations identified in Q39.

Discussion with my supervisors

41 Is ethnicity data being collected as part of the project? Yes No

If yes: i) will the data be used as a basis for analysis? Yes No

ii) justify this use in terms of the number of participants.

(Note that harm can be done through an analysis based on insufficient numbers)

If no: i) justify this approach, given that in some research an analysis based on ethnicity may yield results of value to Maori and to other groups.

The participants may be from different ethnic groups which could contribute to the study by giving different participant perspectives but I will not be purposefully seeking ethnicity data. I will not be including or excluding participants because of ethnicity. The focus of the study is on historical practices and these may have changed for all ethnic groups over time.

- 42 If participants are children/students in a pre-school/school/tertiary setting, describe the arrangements you will make for children/students who are present but not taking part in the research.
(Note that no child/student should be disadvantaged through the research)

SECTION D: INFORMED & VOLUNTARY CONSENT (Refer Code Section 3, Para 11)

- 43 By whom and how, will information about the research be given to potential participants?

By the researcher in writing with the option of further information by telephone, or in person, if requested by the participant.

- 44 Will consent to participate be given in writing? Yes No

(Attach copies of Consent Form/s to the application form)

If no, justify the use of oral consent.

- 45 Will participants include persons under the age of 16? Yes No

If yes: i) indicate the age group and competency for giving consent.

- ii) indicate if the researcher will be obtaining the consent of parent(s)/caregiver(s). Yes No

(Note that parental/caregiver consent for school-based research may be required by the school even when children are competent. Ensure Information Sheets and Consent Forms are in a style and language appropriate for the age group)

- 46 Will participants include persons whose capacity to give informed consent may be compromised? Yes No

If yes, describe the consent process you will use.

- 47 Will the participants be proficient in English? Yes No

If no, all documentation for participants (Information Sheets/Consent Forms/Questionnaire etc) must be translated into the participants' first-language.

(Attach copies of the translated Information Sheet/Consent Form etc to the application form)

SECTION E: PRIVACY/CONFIDENTIALITY ISSUES (Refer Code Section 3, Para 12)

- 48 Will any information be obtained from any source other than the participant? Yes No

If yes, describe how and from whom.

Information from written material will be used to support the findings from the oral history interviews but will not include specific information personal to the participants. This will be accessed from old medical and midwifery records, texts or writings from book collections, archives and medical libraries.

- 49 Will any information that identifies participants be given to any person outside the research team? Yes No

If yes, indicate why and how.

Participants may choose to be identified.

- 50 Will the participants be anonymous (i.e. their identity unknown to the researcher?) Yes No

If no, explain how confidentiality of the participants' identities will be maintained in the treatment and use of the data.

If the participants consent the audiotapes will be archived and the participants actual names will be used in writing the thesis as is usual in Oral History research.

If a participant wishes to keep his/her identity confidential then care will be taken to make sure that in the writing of the thesis pseudonyms are used and identifying features are not included. In this case the researcher will not archive the audio-tape but will return it to the participant, or the participant may place conditions on the accessibility of the archived audio-tape.

- 51 Will an institution (e.g. school) to which participants belong be named or be able to be identified? Yes No

If yes, explain how you have made the institution aware of this?

It is possible that techniques used in St Helens or other hospitals may be compared, but this is historic data and many of the institutions no longer exist. The institutions that the participants have worked in will not be identifiable until we know who the participants will be. It is intended that the participants' stories will not identify or embarrass any institution or other practitioner and care will be taken to ensure this.

- 52 Outline how and where:

i) the data will be stored, and

(Pay particular attention to identifiable data, e.g. tapes, videos and images)

In the researcher's locked metal filing cabinet

ii) Consent Forms will be stored.

In the researcher's separate locked metal filing cabinet

(Note that Consent Forms should be stored separately from data)

- 53 i) Who will have access to the data/Consent Forms?

The researcher and her supervisors until the audio-tapes are archived, then the consent forms may be held by the archive.

ii) How will the data/Consent Forms be protected from unauthorised access?

The researcher will hold the keys to the filing cabinet.

- 54 Describe arrangements you have made for the disposal of the data/Consent Forms when the five-year storage period (ten years for health-related research) is up?
(For student research the Massey University HOD Institute/School/Section / Supervisor / or nominee should be responsible for the eventual disposal of data)
(Note that although destruction is the most common form of disposal, at times, transfer of data to an official archive may be appropriate).

The audio-tapes, their summaries, the consent forms for the interviews and for archiving will be kept at the archive. It is hoped that this will be the Alexander Turnbull Library in Wellington but if this is not possible it will be with a suitable alternative which could be Massey University, the New Zealand College of Midwives or a medical library.

SECTION F: DECEPTION (Refer Code Section 3, Para 13)

- 55 Is deception involved at any stage of the project? Yes No

If yes, justify its use and describe the debriefing procedures.

SECTION G: CONFLICT OF ROLE/INTEREST (Refer Code Section 3, Para 14)

- 56 Is the project to be funded in any way from sources external to Massey University? Yes No

If yes: i) state the source.

ii) does the source of the funding present any conflict of interest with regard to the research topic?

- 57 Does the researcher/s have a financial interest in the outcome of the project? Yes No

If yes, explain how the conflict of interest situation will be dealt with.

- 58 Describe any professional or other relationship between the researcher and the participants? (e.g. employer/employee, lecturer/student, practitioner/patient, researcher/family member). Indicate how any resulting conflict of role will be dealt with.

There would be collegial/peer relationships with midwives and with doctors that I have worked with at varying stages of my career, several of whom would be retirees. There are no power imbalances that I can identify as these are all older practitioners.

SECTION H: COMPENSATION TO PARTICIPANTS (Refer Code Section 4, Para 23)

- 59 Will any payments or other compensation be given to participants? Yes No

If yes, describe what, how and why.

(Note that compensation (if provided) should be given to all participants and not constitute an inducement. Details of any compensation provided must be included in the Information Sheet)

Reasonable travel expenses may be reimbursed (see information sheet).

SECTION I: TREATY OF WAITANGI (Refer Code Section 2)

60 Are Maori the primary focus of the project? Yes No

If yes: Answer Q61 – 64

If no, outline: i) what Maori involvement there may be, and

It is possible that a Maori midwife or doctor will be interested in becoming a participant.

ii) how this will be managed.

I will work with the participant and her whanau/hapu/iwi (participant's choice) to accommodate any cultural requests, for instance, to have whanau support at the interview. I will also check that he/she is comfortable with what is on the recording, and offer him/her a copy. I will offer to present the outcomes of the research at a time and place that she wishes and to any group that he/she wishes.

61 Is the researcher competent in te reo Maori and tikanga Maori? Yes No

If no, outline the processes in place for the provision of cultural advice.

I am not competent in te reo but have worked as a midwife with a large number of Maori clients and have a good understanding of tikanga. I have potential support available to me from several different Maori sources including the New Zealand Maori Midwives Group 'Nga Maia'.

62 Identify the group/s with whom consultation has taken place or is planned and describe the consultation process.

(Where consultation has already taken place, attach a copy of the supporting documentation to the application form, e.g. a letter from an iwi authority)

Informal consultation with Nga Maia. Formal consultation will occur if any particular issues arise.

63 Describe any ongoing involvement of the group/s consulted in the project.

None

64 Describe how information resulting from the project will be shared with the group/s consulted?

They will be given a copy of the final thesis or if they prefer I will present my findings to them in person.

SECTION J: CULTURAL ISSUES (Refer Code Section 3, Para 15)

65 Other than those issues covered in Section I, are there any aspects of the project that might raise specific cultural issues? Yes No

If yes, explain. Otherwise, proceed to Section K.

- 66 What ethnic or social group/s (other than Maori) does the project involve?
- 67 Does the researcher speak the language of the target population? Yes No
If no, specify how communication with participants will be managed.
- 68 Describe the cultural competence of the researcher for carrying out the project.
(Note that where the researcher is not a member of the cultural group being researched, a cultural advisor may be necessary)
- 69 Identify the group/s with whom consultation has taken place or is planned.
(Where consultation has already taken place, attach a copy of the supporting documentation to the application form)
- 70 Describe any ongoing involvement of the group/s consulted in the project.
- 71 Describe how information resulting from the project will be shared with the group/s consulted.
- 72 If the research is to be conducted overseas, describe the arrangements you will make for local participants to express concerns regarding the research.

SECTION K: SHARING RESEARCH FINDINGS (Refer Code Section 4, Para 26)

- 73 Describe how information resulting from the project will be shared with participants.
(Note that receipt of a summary is one of the participant rights)
- I intend giving each participant a copy of their audio-tape and summary, and a summary of the research findings, whether their audio-tape is archived or not.

SECTION L: INVASIVE PROCEDURES/PHYSIOLOGICAL TESTS (Refer Code Section 4, Para 21)

- 74 Does the project involve the collection of tissues, blood, other body fluids or physiological tests? Yes No
(If yes, complete Section L, otherwise proceed to Section M)
- 75 Describe the material to be taken and the method used to obtain it. Include information about the training of those taking the samples and the safety of all persons involved. If blood is taken, specify the volume and number of collections.
- 76 Will the material be stored? Yes No
If yes, describe how, where and for how long.

- 77 Describe how the material will be disposed of (either after the research is completed or at the end of the storage period).
(Note that the wishes of relevant cultural groups must be taken into account)
-
- 78 Will material collected for another purpose (e.g. diagnostic use) be used? Yes No
- If yes, did the donors give permission for use of their samples in this project? *(Attach evidence of this to the application form)* Yes No
- If no, describe how consent will be obtained. Where the samples have been anonymised and consent cannot be obtained, provide justification for the use of these samples.
-
- 79 Will any samples be imported into New Zealand? Yes No
- If yes, provide evidence of permission of the donors for their material to be used in this research.
-
- 80 Will any samples go out of New Zealand? Yes No
- If yes, state where.
(Note this information must be included in the Information Sheet)
-
- 81 Describe any physiological tests/procedures that will be used.
-
- 82 Will participants be given a health-screening test prior to participation? Yes No
- (If yes, attach a copy of the health checklist)*

Reminder: Attach the completed Screening Questionnaire and other attachments listed in Q5

SECTION M: DECLARATION *(Complete appropriate boxes)*

ACADEMIC STAFF RESEARCH

Declaration for Academic Staff Applicant

I have read the Code of Ethical Conduct for Research, Teaching and Evaluations involving Human Participants. I understand my obligations and the rights of the participants. I agree to undertake the research as set out in the Code of Ethical Conduct for Research, Teaching and Evaluations involving Human Participants. My Head of Department/School/Institute knows that I am undertaking this research. The information contained in this application is to the very best of my knowledge accurate and not misleading.

Staff Applicant's Signature _____ Date: _____

STUDENT RESEARCH

Declaration for Student Applicant

I have read the Code of Ethical Conduct for Research, Teaching and Evaluations involving Human Participants and discussed the ethical analysis with my Supervisor. I understand my obligations and the rights of the participants. I agree to undertake the research as set out in the Code of Ethical Conduct for Research, Teaching and Evaluations involving Human Participants. The information contained in this application is to the very best of my knowledge accurate and not misleading.

Student Applicant's Signature _____ Date: _____

Declaration for Supervisor

I have assisted the student in the ethical analysis of this project. As supervisor of this research I will ensure that the research is carried out according to the Code of Ethical Conduct for Research, Teaching and Evaluations involving Human Participants.

Supervisor's Signature _____ Date: _____
Print Name _____

GENERAL STAFF RESEARCH/EVALUATIONS

Declaration for General Staff Applicant

I have read the Code of Ethical Conduct for Research, Teaching and Evaluations involving Human Participants and discussed the ethical analysis with my Line Manager. I understand my obligations and the rights of the participants. I agree to undertake the research as set out in the Code of Ethical Conduct for Research, Teaching and Evaluations involving Human Participants. The information contained in this application is to the very best of my knowledge accurate and not misleading.

General Staff Applicant's Signature _____ Date: _____

Declaration for Line Manager

I declare that to the best of my knowledge, this application complies with the Code of Ethical Conduct for Research, Teaching and Evaluations involving Human Participants and that I have approved its content and agreed that it can be submitted.

Line Manager's Signature _____ Date: _____
Print Name _____

TEACHING PROGRAMME

Declaration for Paper Controller

I have read the Code of Ethical Conduct for Research, Teaching and Evaluations involving Human Participants. I understand my obligations and the rights of the participants. I agree to undertake the teaching programme as set out in the Code of Ethical Conduct for Research, Teaching and Evaluations involving Human Participants. My Head of Department/School/Institute knows that I am undertaking this teaching programme. The information contained in this application is to the very best of my knowledge accurate and not misleading.

Paper Controller's Signature _____ Date: _____

Declaration for Head of Department/School/Institute

I declare that to the best of my knowledge, this application complies with the Code of Ethical Conduct for Research, Teaching and Evaluations involving Human Participants and that I have approved its content and agreed that it can be submitted.

Head of Dept/School/Inst Signature _____ Date: _____
Print Name _____

Appendix II

Participant Invitation and Information

1. Invitation to Participate
2. Information Sheet
3. Interview Guideline



Dear colleague,

My name is Jane Stojanovic. I am a lecturer in midwifery in the Massey University School of Health Sciences, where I am also enrolled in the doctoral studies programme. The research for my PhD thesis examines the evolution of the management of the birth of the placenta in New Zealand and is currently entitled '*An exploration of the management of the birth of the placenta in New Zealand from an historical perspective*'.

I would like to invite you to be one of the participants in this research. I am looking for up to twenty maternity practitioners who have practiced in maternity in New Zealand for more than fifteen, preferably twenty years, and would enjoy sharing their experiences and knowledge of the management of the birth of the placenta.

I require a range of practitioners from medical/obstetric and midwifery backgrounds, and from a variety of practice environments, such as hospital and community, to comprehensively explore the topic and provide a balanced account of the evolution of third stage management. Participation in the research will require 1 to 2 hours of your time, and consists of an audio-taped interview at a venue of your choice. I have enclosed an information sheet describing the research project in more depth.

My intention is to describe the evolution of the different practices to do with the management of the birth of the placenta, and to examine how practitioners' practice beliefs are influenced by their practice experiences and environment, as well as by research and education. You were identified as a potential participant because of your practice experience and knowledge.

I will contact you in approximately one week to check with you whether you would like to be a participant in this research. I will not contact you earlier as I do not want you to feel as though you are under any pressure to participate but if you wish you may contact me or my supervisor, Dr. Benn, at any time.

Thank you,

Jane Stojanovic
School of Health Sciences
Massey University
Private Bag 11 222
Palmerston North
At home: 063648890
Mobile: 0274747428,
At Massey: 06 3569099, ext 2243,
E-mail J.E.Stojanovic@massey.ac.nz
Or Jane.Stojan@xtra.co.nz

or:

Dr Cheryl Benn
Associate Professor
School of Health Sciences
Massey University
Private Bag 11 222
Palmerston North
Mobile: 0272423394
Phone: 06 3569099 ext 2543
E-mail C.A.Benn@massey.ac.nz



***An exploration of the management of the birth of the placenta in New Zealand
from an historical perspective***

INFORMATION SHEET

Thank you for considering being a participant in this research. I am a lecturer in midwifery in the Massey University School of Health and Social Services and am enrolled there in the doctoral studies programme. My supervisors are Associate Professor Dr. Cheryl Benn, Director of the Midwifery Programme, and Professor Margaret Tennant of the School of History, Philosophy and Classics at Massey University.

This research examines the evolution of the management of the third stage of labour in New Zealand and attempts to answer two questions:

- How and why have practices used to facilitate the birth of the placenta evolved in New Zealand?
- What experiential knowledge is identified by maternity practitioners as catalytic in the formation of their practice beliefs about the birth of the placenta?

My intention is to describe the evolution of the different practices to do with third stage management and examine how practitioners' practice beliefs are influenced by their practice environment as well as by research and education. Oral History techniques will be used and it is intended that audiotapes from the interviews will be archived, with participants' permission, as historical data.

Participants

I would like to interview up to twenty medical and midwifery maternity practitioners who have had at least fifteen, but preferably twenty years of maternity practice experience in New Zealand. These practitioners may be currently practising or may be retired practitioners, and will include practitioners whose experience has been gained in hospital or in the community. Any practitioner who is interested in participating is welcome to contact me. Selection of participants will be based on number of years of experience and the need to achieve a reasonable balance of midwifery and medical knowledge and experience, and a balanced range of practice contexts.

What you would be expected to do:

If you are interested in participating I would like to interview you at a time and in a place convenient for you. The interviews are expected to take between one to two hours and will be audio-taped. The interviews would be carried out in your own time (rather than work time), and unfortunately I do not have the resources to financially compensate you for your time, however, I may be able to reimburse reasonable travel expenses.

Participants in oral history research are encouraged to use their own names as this adds to the credibility of the research, however, participants who would prefer not to be identified can be accommodated by the use of pseudonyms. Before the interview commences you will be asked to give written consents pertaining to participation in the research and whether you wish to remain anonymous. Following the interview you will be asked to sign consent for the archiving of the audiotapes and whether you wish to place conditions upon the access to them. I have appended copies of the consent forms to this information sheet for your information.

The interview:

At the start of the interview I will ask some demographic questions regarding your medical/midwifery education and practice history. Then I will ask how you were educated in the management of the birth of the placenta, what your beliefs are about it, and what experiences you have had which you feel may have influenced your practice beliefs. I will also ask you to discuss your perceptions of whether practices used to facilitate the birth of the placenta have evolved and changed over time and why.



What happens to the audio-tapes? Because the tapes themselves form the data for www.massey.ac.nz I will be summarizing the tapes and they will not be transcribed. It is intended that when the thesis is completed the tapes and their summaries will be stored in library archives for historical purposes, either at Massey University, or possibly as part of the audiotape collection at the Alexander Turnbull Library in Wellington or some other suitable venue. Until then, while the research is in progress, they will be kept in a locked metal filing cabinet, accessible only to me or my supervisors. If you wish, I will make a copy of your interview tape and summary for you to keep. The information from the interview will be used to develop my doctoral thesis. Parts of the thesis will be published in professional journals or used in conference proceedings. If anonymity has been requested by any participants this will be preserved by the use of pseudonyms and the omission of any identifying factors.

Your rights as a participant

include the right to:

- decline to participate
- refuse to answer any question and to withdraw from the study (until the commencement of thesis writing).
- ask any questions about the research at any time during participation
- turn off the tape recorder at any time during the interview
- provide information on the understanding that your name will not be used if you have requested anonymity.
- place certain conditions on the use of the audiotape
- be given a copy of the audiotape if you have agreed to the tape being archived.
- be given a summary of the findings of the study at its conclusion.

Risks, discomforts and benefits

I do not anticipate any risk for you from participation in this research. Although unlikely, there could be some discomfort from the recollection of traumatic events. Debriefing with me could possibly be a beneficial exercise for you but if discomfort is ongoing we would work together to resolve it, which could involve the identification of an appropriate counseling service.

There is also no direct personal benefit to you from participation other than satisfaction that you have contributed to furthering professional knowledge and also to the development of an historical archive. Midwives who are currently practising would gain a certificate for their professional portfolio to acknowledge participation in research thus gaining points toward the Midwifery Council's requirements for recertification.

If you have any further questions regarding this research, or are interested in participating, please contact either:

Jane Stojanovic
School of Health Sciences
Massey University
Private Bag 11 222
Palmerston North
Mobile: 0274747428,
At home: 063648890
At Massey: 06 3569099, ext 2243.
Email at J.E.Stojanovic@massey.ac.nz.

or:

Dr Cheryl Benn
Associate Professor
School of Health Sciences
Massey University
Private Bag 11 222
Palmerston North
Mobile: 0272423394
Phone: 06 3569099 ext 2543
Email: C.A.Benn@massey.ac.nz

I will contact you in a one week to check with you whether you would like to be a participant in this research. I will not contact you earlier as I do not want you to feel as though you are under any pressure to participate but if you wish you may contact me at any time.

This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern A, Application 07/35. If you have any concerns about the conduct of this research, please contact Professor John O'Neill, Chair, Massey University Human Ethics Committee: Southern A, telephone 06 350 5799 x 8771, email humanethicsoutha@massey.ac.nz.





An exploration of the management of the birth of the placenta in New Zealand from an historical perspective

Interview guide

My name is Jane Stojanovic and this interview is taking place at: *address or place description*.
The date is *date*. *Possible comment on external noise if present*.
For this interview I am using a Sony Cassette-corder TCM-939 and SKC LX standard 60 minute
audiotapes.

*NB. The intention is for the participant to tell their story rather than for the interview to be
structured. These questions are to guide me and may be rephrased or omitted to suit the
situation/or the needs of the person being interviewed.*

- Thank you very much for taking part in this research, which considers the evolution of the management of the birth of the placenta in New Zealand
- What is your name?
- Where and when were you educated as a *doctor/midwife/obstetrician*?
- Have you finished practicing in practising in maternity? If so, when?
- Would you briefly outline your career as a *midwife/doctor/obstetrician* for me?
- In what type of maternity environment *did you/do you practice?* - primary, secondary or tertiary hospital? homebirth?
- How were you taught to manage the birth of the placenta when you began your career?
- How has the management of the birth of the placenta changed over the time that you have practised?
- What do you personally consider the best way to manage the birth of the placenta?
 - *Any ecboic drugs, how administered, timing of administration*
 - *wait for signs of separation? guarding the uterus? cord traction onset?*
 - *'milking or draining the cord? cord clamping? cutting?*
 - *membrane 'roping' or twisting?*
 - *maternal position? pistoning? manual removal? when and why?*
 - *placental inspection following delivery*
- Would an avulsed cord where there is no heavy bleeding change your practice?
- Can you describe any incidents or experiences that you feel have influenced you in your beliefs about the management of the birth of the placenta

Interview guide

Appendix III

Consent Forms

1. Consent for Interview and identification form
2. Consent to archive audiotape form



An exploration of the management of the birth of the placenta in New Zealand from an historical perspective

Archiving of Oral History Audiotape Agreement Form

Full name of person interviewed:
 Name of Interviewer: *Jane Stojanovic* Date of interview:
 Copyright holder: *Jane Stojanovic*

1. PLACEMENT:

I, the person interviewed, agree that a recording of my interview and accompanying material will be held in a secure place by the researcher until it is placed in an approved oral history archive or returned to me.

2. ACCESS:

I understand that the recording of my interview and accompanying material may be available to researchers at the above location, subject to any restrictions in paragraph 4 below.

3. PUBLICATION:

I agree that the recording of my interview and accompanying material may be quoted in published works in full or in part and that the recording may be broadcast or used in public performances in full or in part (including electronic publication on the internet), subject to any restrictions in paragraph 4 below.

4. I require that there will be **NO** access to:
 I require that there be **NO** publication of:
 I require that there be **NO** electronic publication on the internet of:
 the following sections of my interview and accompanying material before the release date indicated **WITHOUT MY PRIOR WRITTEN PERMISSION:**
 SIDE NUMBERS _____ REVIEW/RELEASE DATE _____

PRIVACY ACT: I understand that this agreement form does not affect my rights and responsibilities under the Privacy Act 1993.

COMMENTS: _____

Signed: _____
 Person Interviewed

Signed _____
 Researcher:

Consent to archive audiotape





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COLLEGE OF HUMANITIES AND SOCIAL SCIENCES
Te Kura Pūkenga Tangata

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www.massey.ac.nz

An exploration of the management of the birth of the placenta in New Zealand from an historical perspective

Researcher: Jane Stojanovic

Research Participant Consent Form

This consent form will be held for a period of five (5) years

I have read the information sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I agree to participate in this study under the conditions set out in the information sheet.

I agree/do not agree to have my real name used in this research.
A pseudonym will be used if you do not agree.

Signature _____ Date _____

Full Name - printed _____



Appendix IV

National Oral History Association of New Zealand (NOHANZ)

1. Code of Ethical and Technical Practice
2. Example of Oral History Consent Form

CODE OF ETHICAL AND TECHNICAL PRACTICE

ORIGINS

The National Oral History Association of New Zealand (NOIANZ) Te Kete Kōrero-a-Wāhā o e Motu was established as a result of the first national oral history seminar organised in April 1986.

OBJECTIVES

- to promote the practice and methods of oral history
- to promote standards in oral history interviewing techniques, and in recording and preservation methods.
- to act as a resource of information and to advise on practical and technical problems involved in making oral history recordings.
- to act as a co-ordinator of oral history activities throughout New Zealand.
- to produce an annual oral history journal and regular newsletters.
- to promote regular oral history meetings, talks, seminars, workshops and demonstrations.
- to encourage the establishment of NOIANZ branches throughout New Zealand.
- to improve access to oral history collections held in libraries, archives and museums.

National Oral History Association of New Zealand
Te Kete Kōrero-a-Wāhā o Te Motu
P.O. Box 3819
WELLINGTON
2001

This Code exists to promote ethical, professional and technical standards in the collection, preservation and use of sound and video oral history material.

Archives, sponsors and organisers of oral history projects have the following responsibilities:

- To inform interviewees and people interviewed of the importance of this Code for the successful creation and use of oral history material
- To select interviewees on the basis of professional competence and interviewing skill, endeavouring to assign appropriate interviewees to people interviewed
- To see that records of the creation and processing of each interview are kept
- To ensure that each interview is properly indexed and catalogued
- To ensure that preservation conditions for recordings and accompanying material are of the highest possible standard
- To ensure that placement of and access to recordings and accompanying material comply with a signed or recorded agreement with the person interviewed
- To ensure that people interviewed are informed of issues such as copyright, ownership, privacy legislation, and how the interview and accompanying material may be used
- To make the existence of available interviews known through public information channels
- To guard against possible social injury to, or exploitation of people interviewed

Interviewers have the following responsibilities:

- To inform the person interviewed of the purposes and procedures of oral history in general and of the particular project in which they are involved
- To inform the person interviewed of issues such as copyright, ownership, privacy legislation, and how the material and accompanying material may be used
- To develop sufficient skills and knowledge in interviewing and equipment operation, e.g. through reading and training, to ensure a result of the highest possible standard
- To use equipment that will produce recordings of the highest possible standard
- To encourage informative dialogue based on thorough research
- To conduct interviews with integrity
- To conduct interviews with an awareness of cultural or individual sensitivities
- To treat every interview as a confidential conversation, the contents of which are available only as determined by written or recorded agreement with the person interviewed
- To place each recording and all accompanying material in an archive to be available for research, subject to any conditions placed on it by the person interviewed
 - to inform the person interviewed of where the material will be held
- To respect all agreements made with the person interviewed

Oral History Recording Agreement Form

Oral History Project

FULL NAME OF PERSON INTERVIEWED
NAME OF INTERVIEWER
DATE OF INTERVIEW
COMMISSIONING ORGANISATION/PERSON
COPYRIGHT HOLDER

1. **PLACEMENT** I, the person interviewed, agree that a recording of my interview and accompanying material will be held at

2. **ACCESS** I understand that the recording of my interview and accompanying material may be made available to researchers at the above location, **subject to any restrictions in paragraph 4 below.**

3. **PUBLICATION** I agree that the recording of my interview and accompanying material may be quoted in published works in full or in part and that the recording may be broadcast or used in public performances in full or in part (including electronic publication on the internet), **subject to any restrictions in paragraph 4 below.**

4.	I require that there will be NO access to _____ (tick appropriate box)
	I require that there be NO publication of _____
	I require that there be NO electronic publication on the internet of _____
the following sections of my interview and accompanying material before the review/release date indicated WITHOUT MY PRIOR WRITTEN PERMISSION.	
SIDE NUMBERS: _____	REVIEW/RELEASE DATE: _____

5. **PRIVACY ACT:** I understand that this Agreement Form does not affect my rights and responsibilities under the Privacy Act 1993.

6. **COMMENTS** _____

Person interviewed _____ Interviewer _____ on behalf of project commissioner _____

Date _____ Date _____ Date _____

NOTE: The terms of this agreement form may be revised or amended only by the person recorded or by the commissioning organisation or person with the authority of the person interviewed. Any amendment must be registered with the commissioning organisation or person.

Appendix V

St Helens Hospital Data

Complications of Third Stage Labour, St Helens Hospital Wellington, Outdoor Casebook 1913 – 1918

Case Number	Name	Comment (as written in case-notes)
608	Jean	Adherent placenta removed manually by Doctor
618	Rebecca	Placenta adherent removed by Dr Perkins at 7.45am (baby born 5.50)
632	Unice	Labour instrumental owing to large size of head, placenta removed manually by the Doctor [Agnes Bennett]
638	Eliza	Bearing down pain but no advance in second stage. Head not engaged in brim, Dr Bennett delivered child, instrumental, 2 post partum haemorrhages shortly after 3rd stage Ergot [?] Gr.1 given, repeated in an hour.
642	Mrs. Holdsworth	Placenta adherent removed manually in fragments, second day of puerperium temp rose, uterus curetted (Drs Tennant & Bowerbank)
643	Mrs. Johnston	Labour instrumental, retained placenta delivered manually, Intra-uterine douche given.
650	Norah	Appearance somewhat anaemic on arrival. Born before Dr's arrival, severe after pains - large clots expressed 2 hours after 3rd stage
663	Annie	Complications haemorrhage antepartum and postpartum. Called to patient during 1st stage of labour. Severe antepartum haemorrhage due to placenta praevia.
675	Kathleen	Postpartum haemorrhage. Uterine inertia. On arrival found patient in 1st stage of labour generally weakened appearance, prolonged 1st stage of labour.
685	May	Faintness and cyanosis - Pituitrin given
707	Margaret	Marginal placenta praevia - appeared anaemic, lost a fair amount of blood
710	Elizabeth	Weak labour pains, collapse after completion of 3rd stage. Dr called and pituitrin & sal volatile given, battledore placenta. General appearance very anaemic, iron given.
734	Elizabeth	Appeared anaemic, retained chorion. Dr called removed manually.
806	Alice V	Adherent marginal placenta
820	Alice L	Slight postpartum haemorrhage Ergot [?] Gii given followed by hot douche, haemorrhage ceased.
830	Eileen W	Slight PP Haemorrhage Ernutin given
841	Annie M	Ergot BID on 1st day to counteract heaviness of lochia
849	Ivy M	Slight PPH
894	Florence	Partly adherent membranes, hydramnios, PPH
900	Emily L	Slight postpartum haemorrhage and collapse, Hypodermic Ernutin and saline per rectum given
907	Emily E	Sharp Postpartum Haemorrhage
913	Alice W	Adherent placenta and postpartum haemorrhage (patient suffering from gonorrhoeal endometritis) transferred to general hospital day 6 [for high temp]
1072	Mrs Amery	adherent placenta
1073	Fanny S	partly adherent placenta