

ORIGINAL RESEARCH – QUALITATIVE

Paperbark and pinard: A historical account of maternity care in one remote Australian Aboriginal town



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ARTICLE INFO

Article history:

Received 8 February 2015

Received in revised form 18 June 2015

Accepted 20 June 2015

Keywords:

Midwifery

History

Remote

Aboriginal women

Australia

ABSTRACT

Background and aim: Maternity care in remote areas of the Australian Northern Territory is restricted to antenatal and postnatal care only, with women routinely evacuated to give birth in hospital. Using one remote Aboriginal community as a case study, our aim with this research was to document and explore the major changes to the provision of remote maternity care over the period spanning pre-European colonisation to 1996.

Methods: Our research methods included historical ethnographic fieldwork (2007–2013); interviews with Aboriginal women, Aboriginal health workers, religious and non-religious non-Aboriginal health workers and past residents; and archival review of historical documents.

Findings: We identified four distinct eras of maternity care. Maternity care staffed by nuns who were trained in nursing and midwifery serviced childbirth in the local community. Support for community childbirth was incrementally withdrawn over a period, until the government eventually assumed responsibility for all health care.

Conclusions: The introduction of Western maternity care colonised Aboriginal birth practices and midwifery practice. Historical population statistics suggest that access to local Western maternity care may have contributed to a significant population increase. Despite population growth and higher demand for maternity services, local maternity services declined significantly. The rationale for removing childbirth services from the community was never explicitly addressed in any known written policy directive. Declining maternity services led to the de-skilling of many Aboriginal health workers and the significant community loss of future career pathways for Aboriginal midwives. This has contributed to the current status quo, with very few female Aboriginal health workers actively providing remote maternity care.

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1. Introduction

In Australia's Northern Territory, Indigenous women account for 36% of all mothers. Of these women, the majority (64%) live in rural and remote areas, unlike the majority of non-Indigenous

mothers, who live in urban areas (95%).¹ Aboriginal women in remote areas are the least likely of all Australian women to have choice and control over their pregnancy care, choice of care provider or planned place of birth.² Currently, remote maternity services recommend the routine evacuation of all pregnant women into regional areas to give birth in hospital, with only antenatal and postnatal care offered in the woman's home town.³ Prior to the regional centralisation of maternity services, Aboriginal women in some communities elected to give birth in their community-based health clinic. These clinics were closely aligned to contemporary definitions of a primary maternity unit⁴; maternity care was provided by midwives and Aboriginal health workers without on-site obstetrical, anaesthetic, laboratory or paediatric support.

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It has been demonstrated in other parts of the world that primary maternity units can provide equitable and accessible maternity care to women with low-risk pregnancies⁴ and also culturally safe and empowering maternity care to women from an all-risk Indigenous population, without compromising safety.^{5,6} In the absence of clear evidence demonstrating an improvement in perinatal outcomes from the centralisation of maternity services,^{2,7} the re-introduction of primary maternity health services to support childbirth in select remote Aboriginal communities has been suggested as one way of addressing Aboriginal maternal and infant health inequity. It has also been proposed as a way of satisfying the long-standing requests of Aboriginal women to give birth on their ancestral home country.^{7–10} Despite this, there is a dearth of literature that historically contextualises changes to remote maternity services in the Northern Territory. Historical perspectives on maternity care are important because by gaining a deeper understanding of the past, clinicians, researchers and policy makers can better manage and respond to the challenges that can occur when developing and maintaining midwifery-led maternity services.⁴ Our purpose with this paper is to historically contextualise the changes to maternity care in remote areas of the Northern Territory. To do so, we use as a case study the maternity health care experiences of women and health practitioners in one remote Aboriginal township from pre-colonisation to 1996.

2. Research site

The research site is a remote Northern Territory Aboriginal township named *Saint Fiacre* (pseudonym). Aboriginal people have lived in this area for hundreds of generations, representing many thousands of years of continuous occupation. In the years preceding the establishment of a religious mission, people in the area experienced vicarious contact with Europeans via an Aboriginal trade route supplying foreign substances: tea, tobacco, sugar, cloth and metal. Ceremonial and trade travellers visiting the nearby colonial capital had been exposed to the English language and, over time, a few returned home with the ability to comprehend and speak the new tongue. In the early 1930s, as the pressure of colonisation increased, neighbouring tribes began to disintegrate, posing a threat to the tribal lands of others and leading to widespread conflict, disarray and fear.¹¹ The encroaching colonisation weakened the people in the *Saint Fiacre* region; their social reality and order was unravelling at the edges.

In the mid-1930s, the Catholic Missionaries of the Sacred Heart established *Saint Fiacre* as a mission at a temporary coastal location until some years later when it moved to a permanent inland site. There was no hostility recorded towards the all-male missionaries, whose supply of foreign goods such as tea and tobacco were openly welcomed. The mission catered for Aboriginal people who belonged to the area's 23 clan groups and represented several separate languages. The people organised themselves socially into a complex kinship network with associated ceremonial obligations and broadly divided themselves into the 'saltwater' and 'freshwater' people. The permanent site of the mission was on the traditional lands of one clan, which resulted in gradual linguistic intimidation and assimilation until one Aboriginal language came into dominance. With inadequate supplies and resources to support the whole population, the mission ran a rotating roster, whereby groups of people belonging to the same clan took turns to work and receive rations from the mission. When not in attendance at the mission, they returned to their clan estates and lived as they had done so before the mission started. Nuns from the Catholic order Daughters of Our Lady of the Sacred Heart were employed briefly in the months prior to the Second World War but were evacuated due to wartime concerns about their safety. The nuns returned immediately after the war and contributed to the mission community by providing,

among other services, mainstream biomedical health care and Western education.

Today *Saint Fiacre* remains one of the largest and most remote Aboriginal towns in the Northern Territory. The urban referral centre is approximately a one-hour flight away, and the community remains inaccessible by road during the wet monsoon season. A community health centre, financed and run by government, services the health needs of the town. Despite the existence of a purpose-designed childbirth room in the health centre, no planned births occur there.

3. Gaining permission

Working with permission from and in partnership with Aboriginal women, this research forms part of a doctoral study investigating women's health. Ethical approval for the research project was granted by Charles Darwin University and the Menzies School of Health Research Ethics Committee with a subcommittee dealing specifically with Aboriginal research (Application #HR-10-1429). Letters of written support were obtained from the community. A local reference group comprising senior women community leaders, Aboriginal health workers and other interested individuals oversaw the overarching project. The local reference group provided support, advice and direction throughout the research process, including with the research objectives and methodologies.

Mrs. Concepta Wulili Narjic has been the cultural mentor for the project, providing leadership and advice on all aspects of Aboriginal research methodology and recruitment. Several Aboriginal research assistants who live permanently in the community were recruited, trained and paid to assist with data collection. Due to the sensitive topic of reproduction, they requested anonymity; however, Mrs. Narjic is comfortable about being publicly identified and has given permission.

4. Methods and participants

This historical ethnographic study, completed during a six-year (2007–2013) relationship with the community, involved iterative cycles of data collection. Research rigour was ensured by collaboration with Aboriginal women, prolonged community engagement, triangulation of research methods and participant validation.^{12(pp23–29)} Data collection methods included ethnographic fieldwork in the community; community observation and participation; field site visits to buildings and places of historical significance; written field notes; and semi-structured interviews with retired Aboriginal and non-Aboriginal health professionals. During the semi-structured interviews, the interviewees used a theme guide to elicit the health workers' recollections of scope of practice, clinical experiences and training. We also conducted an archival review of collections held at the local community museum, Northern Territory; Daughters of Our Lady of the Sacred Heart Convent, Kensington, New South Wales; and the Australian Institute of Aboriginal and Torres Strait Islander Studies, Canberra, Australian Capital Territory.

Non-Aboriginal participants were identified via archival material and word-of-mouth suggestions offered to the first author, who then approached potential participants to seek their participation. They were given written information, and consent to an interview (in-person, phone or email) was sought and gained. Only one participant declined to be interviewed due to her poor health and advancing age.

Aboriginal participants were recruited by the fifth author with the assistance of the Aboriginal research assistants and the local reference group, who used the 'message stick' sampling technique to verbally invite potential Aboriginal participants to the research. This method has been successfully used in previous research in a

remote Aboriginal community.¹³ Message sticks purposively recruited female health workers who had been involved in the provision of maternity care. The technique involved a verbal message stick of invitation to participate. If a potential participant responded positively to the message stick, the non-Aboriginal researcher was introduced to her and the woman consented to be involved in the research. Due to this method of recruitment, we are uncertain how many women were invited and how many declined to participate. An audio recording of the project information sheet and consent form was played to all participants in their first Aboriginal language. Depending on the participants' literacy levels and personal preferences, either written or verbal consent was gained. The fifth author and/or an Aboriginal research assistant witnessed the consent process and documented it in writing on a consent form.

5. Analysis

The data were sorted chronologically, from past to present. Although year dates were used as often as possible, many of the Aboriginal participants' perceptions of time were not delineated according to Western calendar years. Instead, many used significant personal life events, such as the birth of their children or the arrival or departure of work colleagues, to describe and mark the Western concept of time. Throughout the research process with Aboriginal women, the first author, where possible, attached these markers of time to known datable events, such as the date of birth of a child, and then linked them to Western chronology.

Once the data were chronologically sorted, four distinct health-service eras were apparent: (1) Wrapped in Paper Bark: Pre-colonisation–1946, (2) Bark Clinic and a Tin Shed Hospital: 1946–1965, (3) The Sacred Heart Hospital: 1967–1980, and (4) Reduction and Withdrawal: 1980–1996. The data were clustered into time eras and then underwent a process of historical content analysis. Through the historical content analysis, we sought to answer specific questions: Who were the maternity caregivers? What comprised pregnancy, birth and post-partum care and where? What skills and resources were available to the care providers? and What were the maternal health care policies/practices guiding practice?

6. Results

In total, we recruited 23 females to participate in the project. This included retired female Aboriginal health workers ($n = 8$), non-Aboriginal female health practitioners ($n = 7$), previous community residents ($n = 2$) and religious non-Aboriginal trained health practitioners employed under the auspices of the Catholic mission ($n = 6$).

6.1. Wrapped in paper bark: pre-colonisation-1946

This first era of maternity care, characterised by Aboriginal-led midwifery, spanned from pre-colonisation to 1946. Prior to the establishment of the mission, Aboriginal-led midwifery care had been in practice for countless generations, spanning many thousands of years. According to Aboriginal research participants and local oral history recordings,¹⁴ caregivers were the community's *kunugunu*—older women. Known and familiar to the pregnant women, these women were skilled in providing maternity care. Those who looked after women during labour and birth were known more specifically as *wakalmanthirriyegarl*, or midwives. Midwives had a culturally constructed role, and they were publicly identified by amputation at the distal phalange of their right index finger. The amputation was expertly conducted by winding the coarse thread of a spider's web between the nail's end

and the first joint, which constricted the flow of blood leading to a process of gangrenous auto-amputation.

Midwifery care normally occurred in the country clan estate of the woman's husband, where the woman resided after marriage. The *kunugunu*—were experienced in recognising the earliest signs of pregnancy as the darkening and enlargement of the breast nipples, subtle changes in face shape and colour changes to the skin creases on a woman's neck. They kept a close watch over women during pregnancy, enforcing food taboos to ensure the wellbeing of the foetus and to prevent excessive maternal bleeding after childbirth. Behaviour restrictions ensured the woman's spiritual safety from a mythological creature. Childbirth was a gender-restricted event, with only females present. A secluded birth-camp was constructed, providing basic shelter, privacy and warmth. Childbirth occurred in an upright position, with the parturient woman kneeling over a prepared, bark-lined pit in the ground. The *wakalmanthirriyegarl*—midwife, knelt behind the labouring woman in a supportive position, named in an oral history recording¹⁴ as *pumantherriabath*, and kneaded the labouring woman's lower spine and sacrum with her bent knees. When the birth of the baby was imminent, another female attendant sat at the front of the woman and offered encouragement until the baby was born through the force of gravity and maternal contractions, sliding unassisted into the pit. The umbilical cord was cut and, depending on the practice of the midwife, sometimes tied with bush string. The placenta was born in the same manner and then disposed of, along with the surrounding soiled paperbark lining, by burial in the same pit. Post-partum care ensured that the woman had rest, nutritious food and adequate hydration, but also that she adhered to post-partum dietary restrictions. Adequacy of breastmilk supply was monitored, lactation advice offered and two sentinel rites of passage ceremonies performed for the baby and mother in the immediate post-partum period.

These practices, reported by Aboriginal participants, suggest that Aboriginal midwives were skilled in creating an environment that would promote normal physiological vaginal birth for a labouring woman. Aboriginal midwifery practice was characterised by a physically and emotionally safe birth-camp; physical warmth and comfort; non-pharmacological pain relief techniques such as active walking, heat, massage and psychosocial support; an upright birth position with parted legs to increase the dimensions of the pelvic outlet; and minimal interference or examination of the perineum during parturition. Their practice certainly decreased the risk of iatrogenic complications such as puerperal sepsis from repeated vaginal examination, but left a midwife with few interventions for managing obstetric emergencies. Two emergency interventions reported by Aboriginal participants were painful ant bites to encourage respiratory effort in a non-rousable newborn and the midwife using her amputated finger stump as an instrument for clearing an infant's occluded airway.

For the most part, midwives and older women providing maternity care made use of resources found in the natural environment; Aboriginal participants identified different usages of species according to the environmental location. Participants reported rocks, various species of juvenile shells and, later, traded foreign metal razor blades as being used for cutting the umbilical cord. Bush string, made from twisted plant fibres, was also sometimes used to constrict the umbilical cord. According to a local oral history recording,¹⁴ the stump was kept dry after birth by dabbing it with a botanical medicinal powder, and the baby's skin was rubbed in a protective emollient of animal fat and red pigment to reduce the chance of skin infection. All interviewees and sources indicated that various species of paperbark were an important resource used in numerous ways during and after childbirth: as a maternal heat pack to soothe and comfort, as a soft and absorbent liner for the birth-pit and the surrounds upon which a labouring

woman would kneel, as a blanket to wrap the infant and woman, and for baby carriers. Breast milk supply could be enhanced by consuming mangrove worms.¹⁵ According to Aboriginal participants, the ceremonial skills of the *kunugunu*—older woman, supported physical healing and the ongoing emotional resilience and wellbeing of mother and baby. If used, mission-acquired foreign medical resources were basic. According to a government inspection report,¹⁶ medical equipment included common ailment treatments in use by the mission priest, such as castor oil, turpentine, magnesium sulphate, iodine, quinine, bandages and dressings, but no surgical instruments. There was no hospital or infirmary building.¹⁶

Maternal care practices were self-governed and socially constructed, with people's cultural beliefs and practices influencing and determining midwifery decisions and actions. Childbirth was a gender-exclusive event; men were strictly prohibited. There is some evidence that after the establishment of the mission the founding priest-in-charge may have assisted women during obstetric emergencies. The priest had no medical background, but at least two Aboriginal women recounted that he was 'a father, nurse, doctor and midwife too'. An anonymous archival letter suggests he had undertaken some training to assist in difficult births.¹⁷ Given the established gender exclusiveness of Aboriginal midwifery, it is remarkable that the male priest intervened in some women's pregnancies and birth. This narrative may well be inaccurate; alternatively, as a non-Aboriginal male 'outsider' and a religious representative the priest may have been able to transgress lawful boundaries without punishment or negative consequence. Despite the uncertainty over his role in obstetric care, it is certain that he undertook the treatment of a range of health problems, such as the tropical illness of 'yaws, sores, wounds and diseases of all sorts'.^{16,18(p4)}

Pregnancy and childbirth were placed within a lifecycle approach that acknowledged as normal, an inherent but necessary risk in reproduction. Great agency and autonomy was placed on a foetus through the belief that pregnancy was the result of a pre-existing 'spirit child' making its presence known to its intended mother and father. Some spirit children, called *wakal mulunthuna*, were conceived from the hiding place of leaves and were undesirable, resulting in one type of pregnancy in which the foetus was deemed *wakal wiye*—a bad, wrong or diseased foetus.¹⁹ Often the *wakal mulunthuna* were conceived by single young women and, the spirit child having never made their presence known to a man, were fatherless. Multiple births were also perceived as problematic and were economically challenging for a nomadic family. According to narratives shared by Aboriginal participants, often the midwife encouraged only one of such babies to live, usually choosing the largest and healthiest of the siblings. In both situations, soon after birth the unwanted baby was buried in the earth. Abortion practices, such as self-inflicted trauma to the abdomen, were known as resulting in the wilful death of a foetus but these were perhaps less frequently practiced than infanticide.

6.2. Bark Clinic and a Tin Shed Hospital: 1946–1965

The second era of maternity care saw the arrival of the first medically trained mission staff nun in 1946 and the establishment of health-designated buildings in the mission village. The era was characterised by the colonisation and displacement of Aboriginal-led midwifery and the caring roles of *kunugunu*—older women, and the *wakalmanthirriyegarl*—midwife. These distinct roles were eventually taken over by middle-aged Aboriginal females working as birth attendants under the instruction and supervision of formally trained Western nurses and midwives who also worked as nuns in the mission. There was a gradual transition in the changeover of primary maternity caregivers, which coincided with

the construction of health-designated buildings in the mission village. By the early 1960s, the *wakalmanthirriyegarl* was no longer in practice; instead, all childbirth care was provided by religious nurses and midwives working alongside Aboriginal birth attendants in the hospital. When on duty, Aboriginal birth attendants were required to wear a white pinafore uniform over their mission-issued 'calico'. Mission policy required all females while staying in the mission precinct to cover their genitals with 'calico', a rudimentary skirt often made from repurposed flourbags or sugarbags.

During the transition period, Aboriginal-led maternity care and Western maternity care alternated and fused. The mix of care depended on the pregnant woman's bush-to-mission rotating work roster and her proximity to the mission, where she could access Western health care. In the late 1940s, after the substantial hospital building was established, bush camp births were quickly superseded, with women preferring to give birth inside the mission hospital. During late pregnancy, in preparation for giving birth, women camped close to the hospital and abstained from being out bush. According to non-Aboriginal participants, Western pregnancy care included basic biomedical surveillance including checking blood pressure, measuring the fundus, auscultating the foetal heart using a pinard stethoscope and assessing the mother's general wellbeing. Childbirth occurred behind a screened partition in the corner of the women's ward on a Western bed that encouraged the adoption of a medicalised supine position for birth; however, some women who had previously experienced childbirth in a bush camp squatted on the bed. The third stage was physiological and blood loss was carefully assessed.

The Western midwives were skilled from their metropolitan Australian hospital-based training to deal with a range of obstetric emergencies. One Aboriginal health worker recalled the medical equipment including three metal syringes (sizes 1, 3 and 5 cc) with four reusable needles of each size, kerosene-powered refrigerator for storing medicines, stethoscope, sphygmometer, thermometer, uterotonic drugs, weight scales, oxygen, basic surgical instruments and a range of antibiotics. Cotton gauze strips were boiled, sterilised, ironed and then used to constrict the umbilical cord before cutting with a metal razor blade. After birth the mother was washed, fed and encouraged to stay in the hospital for some days to recover from the exertion of childbirth. Through an apprenticeship model of training, the Aboriginal birth attendants became skilled in Western care techniques, and in interviews, the nuns praised them for their reliability, efficiency and ability to learn new skills.

The wireless radio in the priest's house could be used to communicate with hospital and medical staff in town, but the reception was often poor due to the weather. Women with foreseeable childbirth problems were encouraged to leave *Saint Fiacre* before the onset of labour and in acute obstetric emergencies, aeromedical evacuation was possible. However, both acute and non-acute evacuations were very infrequent because, according to non-Aboriginal participants, women were fearful of their safety in town and would only agree to transfer if the circumstances were dire.

The first health-dedicated building was in a rudimentary shelter known as the *Clinic Pirru*—Bark Clinic, constructed from stringy-bark sheeting and locally milled timber. There was only basic shelving for storing dressings and medicine. With no separate rooms or privacy in the *Clinic Pirru*, women continued to give birth out bush in clan country estates or at camps in the mission village. According to interviews with founding health staff, clinic staff attended village births rarely during the early mission era. They did so only on request from a woman's family if she was experiencing hardship. By 1950,²⁰ the Tinshed Hospital had been created from two prefabricated corrugated-iron Sidney Williams huts, which were surplus from wartime. Sidney Williams huts, also known as Comet huts, were used by the thousands in remote Australia

because they could be transported as flat packs, were easily dismantled for use at an alternative location and, being constructed from corrugated iron and steel, could withstand extreme tropical weather and termite attack.²¹ Aboriginal and non-Aboriginal health workers recalled the huts as joined with a central partition, allowing for a lockable storeroom for medical supplies. The separate huts had gendered entrances and accommodated a ten-bed ward for females and children on one side, and a five-bed male-only ward on the other. For the first time, the female-only ward created the physical space and privacy necessary to allow childbirth to move from an outdoor bushland location to an inside hospital setting. A screened partition constructed from bark sheeting and hung cotton in the corner of the room served as the labour ward. The floor was earthen, made from a compressed termite mound; this was later improved upon with a concrete-slab floor. The uninsulated building was exceedingly hot in the tropical climate, and there was only a portable battery-powered fan to ease a labouring woman's discomfort from the heat. A generator-powered single electrical bulb could be used to light the ward at night, but more frequently kerosene lanterns were used.

Medical surveillance and Western midwifery care was augmented by prayer and saint veneration, perceived by both Aboriginal and non-Aboriginal women alike to enhance the safety of a labouring woman in the Tinshead Hospital. During a woman's labour, the Aboriginal birth attendants honoured Saint Gerard Majella (patron of expectant mothers). On the arrival of a maternity case, the attendants would light a lantern or candle under a statue of the saint, which was positioned on a small ledge in the corner of the labour ward.²² According to one of the elderly nuns interviewed, she introduced this practice after her midwifery training at Saint Margaret Hospital, Sydney. During her training, veneration of Saint Gerard had been routine in caring for women in labour. The cotton curtains that shielded women during labour not only provided for modesty but also spiritual prophylaxis from the risks of childbirth, with a large red hand-embroidered appeal on the curtains: 'St Gerard, pray for us'.²²

Maternal health practice at this time was dominated by the values and beliefs of Catholicism and the Western biomedical model. Catholic values were pro-natal and encouraged reproduction, with the mission giving a bonus ration to parents upon the birth of their baby. In 1953, the parents received 'tobacco three sticks each, one pipe each, one mirror each, one comb each, one calico each' and the baby received 'baby clothes etc., provided by the sister in charge of hospital'.^{23(n.p.)} The bonus rations not only encouraged reproduction but also provided an incentive for women to give birth in the hospital setting. According to research participants, neither contraceptives nor contraceptive advice were offered, and the nuns, believing that abortion and infanticide practices were immoral, excluded them from maternity care. Western biomedical knowledge allowed screening of pregnant women, with one nun reporting that the preferred practice was for all 'foreseeable obstetrical' problems to be managed outside the remote setting of *Saint Fiacre*. If the midwife had cause to worry about a pregnant woman, the woman would be referred and sent by plane for medical care in town.

6.3. The Sacred Heart Hospital: 1967–1980

The third era of maternity care was characterised by a purpose-built health building, which opened in 1967. Aboriginal participants reported that the building was known as the Sacred Heart Hospital, a reference to the religious order of the nuns who staffed the hospital. The first piece of infrastructure designed to cater for the growing health needs of a burgeoning mission population, the Sacred Heart Hospital included a one-bed labour ward and a two-bed post-partum recovery ward. After the construction of this

building, Western midwifery care in a local hospital setting dominated throughout the era. Maternity care continued to be provided by Western-trained non-Aboriginal midwives and Aboriginal birth attendants; however, now the religious nuns also worked alongside non-religious and lay nurses and midwives employed as hospital staff. Aboriginal birth attendants were given a broader role at the new hospital, with extended responsibilities as generalised Aboriginal health workers. This role was esteemed within the community and, according to Aboriginal participants, encouraged by the nuns as a favoured vocation for young women after leaving school. The female Aboriginal health workers' uniform was a zip-front full-length blue dress, cut below the knees. All women living at the mission had now adopted Western-styled feminine clothing, which covered their genitals, breasts and torso, and they no longer used the mission-issued 'calico' to conceal their body.

Archival research and interviews with Aboriginal women have demonstrated that during this era, mission policy dictated that young children were to be reared in a dormitory system removed from parental care. By now, the younger women apprenticed as Aboriginal birth attendants had been reared in this style and received structured Western schooling, which had resulted in higher levels of English literacy and numeracy. Influenced by their religious upbringing, numerous Aboriginal teenage girls aspired to be jointly trained as both nun and health worker. According to Aboriginal participants, many of these teenagers attempted the training but only two were successful in becoming religious health workers; the local community knew them as *Chista thipman*—black sisters.

Maternity care was now colonised, and Western care dominated. The people of *Saint Fiacre* no longer had a bush-to-mission rotating roster but instead resided permanently in very basic corrugated tin shelters in the village precinct. Pregnant women's health was monitored, and medical screening was undertaken by fly-in fly-out male medical officers. Consultation between doctors, the pregnant woman, family members and hospital staff allowed planning for some births in town. Although the airstrip was unsealed and unlit, landing remained possible during all seasons, albeit with some difficulty at night. Pathology screening of body fluids was introduced, including screening for blood-borne sexually transmissible diseases. In such cases, appropriate treatment was given. An increasing range of medicinal drugs was available, which included uterotonic drugs, antibiotics, opioid analgesia and childhood immunisations. Venous and neonatal umbilical cord cannulation was practiced for advanced resuscitative procedures in an emergency. Basic observational instruments continued to be used to monitor temperature and blood pressure, and on-site blood glucose testing and urine analysis was possible. Communication continued via wireless radio transmission, and the 'radio shack' across the road from the hospital was not conveniently accessible in an emergency.

When women presented to the hospital in established labour, active childbirth was encouraged, with many women walking around boab trees in the hospital grounds. When labour intensified, the woman was moved into the privacy of the labour ward, a one-bed room centrally located next to the nursing sister's office, with a glass window between the two to enable observation of the progress of labour from a distance. In the labour room, the woman continued to squat during the contractions, but a bed was always used for the birth. Aboriginal birth attendants and close female family members kept constant company with the woman during her labour. Prayer and the veneration of saints continued as an important adjunct to Western maternity care. According to the Aboriginal health workers interviewed, the statue of Saint Gerard was transferred to the Sacred Heart Hospital, and to guard the labouring woman from hazards, the Aboriginal birth attendant ritually placed a 'relic medal' on a chain around the labouring

woman's neck on her admission to the labour ward. Some non-Aboriginal health workers also recalled a picture of Saint Gerard hanging above the bed in the labour room.

The birth of the placenta continued to be physiological, and the umbilical cord was clamped with a 'peg'. The infant was routinely suctioned after birth, swaddled in blankets and kept separate from its mother until she had been cleaned and washed by the Aboriginal birth attendants. Cord care included an initial dabbing with Betadine, followed by daily application of methylated spirits. According to the memories of one non-Aboriginal health worker, women stayed at the hospital for several days of post-partum recuperation, receiving nutritious meals from the hospital kitchen and having their vaginal blood loss monitored. When lactation was established and the infant's skin pigmentation had darkened, the woman and her infant returned to her home camp. For some women, this stay in hospital ensured their physical safety, as some women needed refuge from hostile family relations and the threat of intimate-partner violence. Childbirth remained a gender-restricted event.

Maternity care practice continued to be dominated by the values and beliefs of Catholicism and the Western biomedical model. According to information shared during interviews with participants, written medical notes were kept and so too was a birth register, which recorded pertinent information including the mother's and father's name, date of birth, foetal presentation and birth outcome. Only in extreme circumstances was contraception offered; most women were unlikely to request it because they had no knowledge of Western contraceptive methods or techniques. In one case, the visiting medical officer deemed a woman who had given birth to six children within a two-year period (with separate quad and twin pregnancies) a candidate for contraceptive medication, and religious staff trained in nursing and midwifery indirectly supported the decision. According to non-Aboriginal health workers interviewed, in the late 1970s a cluster of multiparous women returned from town-based maternity care having undergone tubal ligation with little understanding of its permanent contraceptive effect. Subsequently unable to get pregnant, many of these women experienced distress, tension and violence in their relationships with their intimate partners. Many women expecting their first baby were sent to town for childbirth—it being a medical preference to ensure the adequacy of the woman's pelvis. A few women subsequently had planned caesarean sections.

Although biomedical and Catholic values dominated maternity care decisions during this era, a midwifery philosophy was also evident in decision-making that centred care on the pregnant woman's individual needs and regarded birth as a significant but normal life event. Both acute and non-acute transfers to town occurred only with the permission of the woman. Hospital staff members were willing to prioritise the wishes of a woman and her family rather than medical opinion. For example, a non-Aboriginal health worker recounted how they supported a number of women who declined evacuation after the birth of their premature infant. The staff members were willing to give extended care and assistance, feeding the infant with a nasogastric tube and supporting the mother while she established breastfeeding.

6.4. Reduction and withdrawal of childbirth services: 1980–1996

This fourth and final era of maternity care was characterised by government-initiated withdrawal of hospital services and the instigation of an out-patient model of health care. This involved a clinic, which was open only during business hours and an attached one-bed birth unit. According to Aboriginal women's childbirth histories, by 1985, locally supported childbirth services had been

withdrawn, and by 1996, full responsibility for the health care of *Saint Fiacre's* people was assumed by the state. All pregnant women attended town at 38 weeks gestation for 'confinement' at a Christian accommodation hostel, and planned childbirth occurred in hospital. During the decades after 1985, unexpected births still occurred in the community, but childbirth services were not routinely provided or supported.

During the period when maternity services were provided, care providers continued to be female Aboriginal birth attendants who worked in the now formalised role of Aboriginal health workers. They practised alongside and in cooperation with religious, lay and non-religious Western-trained nurses and midwives. When childbirth was relocated away from *Saint Fiacre*, there was an abrupt cessation of the reciprocal caring of Aboriginal women by other Aboriginal women during pregnancy, labour and childbirth. Aboriginal health workers continued to dress in their blue uniforms and were now undertaking formal Western training. They obtained certificates of course accomplishment, attended regular scheduled tutorials at the clinic and travelled away for regional practicum placements to enhance their clinical skills. The role of the Aboriginal health worker now encompassed more-autonomous practice. In interviews with non-Aboriginal health workers, Aboriginal health workers were described as sometimes teaching extended practice skills, such as suturing, to new nurses and midwives who had only worked in urban hospitals.

According to nuns interviewed, by the late 1970s, the Sacred Heart Hospital building had become dilapidated, and health services soon relocated to a small square green donga adjacent to the main hospital building. 'Donga' is an Australian term referring to a temporary makeshift portable dwelling. The donga served as a small clinic with another donga attached that served as the labour and birth room. The closure of the hospital was thought to be at the direction of the territory government, which was now financially contributing to health services and favouring a 'fly-out and evacuate' model of health care, rather than the alternative of providing in-patient care in a local hospital ward setting.

Emergency medical resources continued to increase and included drugs and equipment for advanced life-support practices. Obstetric Ventolin and uterotonic drugs were available, as was a neonatal humidicrib. Contact was made with medical services in town via VHF radio, which research participants recalled as being very difficult to use at night, when they were regularly only able to rouse other state radio listeners in Queensland or Western Australia, who would then have to relay important messages back to medical services in town. A non-Aboriginal health worker remembered that in 1987 a standard telephone landline was finally connected, which made long-distance medical consultations the easiest they had ever been in the history of the *Saint Fiacre* mission. In a dire emergency, medical support was close to a one-hour turn-around, though according to all health workers interviewed, it was more common to wait two to three hours for medical help to arrive. The airstrip, although still unsealed, was well constructed and regularly maintained, enabling most planes to land during all seasons. However, there was still no lighting and if an evacuation occurred at night, the airstrip had to be illuminated by hand-lit kerosene lanterns or car headlights.

Antenatal care was formalised by the adoption of standardised protocols contained in *The bush book*.²⁴ Gestation could only be established based on fundal height or quickening, as many women had their babies spaced close together and conceived while still breastfeeding and amenorrhoeic. Care focussed on biomedical screening and testing of women for the common complaints of anaemia, diabetes, poor nutrition, sexually transmissible infections, urinary tract infections and renal failure.²⁵ The midwives and nurses considered sub-standard housing, poor sanitation and a nutritionally deficient diet as the cause for many antenatal and

neonatal problems in *Saint Fiacre*, such as anaemia, urinary tract infections and prematurity. Aboriginal health workers broadened their clinical roles. Non-Aboriginal research participants recalled that Aboriginal health workers offered linguistic assistance and cultural brokering, and were often the first to recognise a woman was pregnant and to refer her for care with the clinic midwife. The clinic staff made a special effort to assist women who lived outside the mission township and ran outstation clinics in an attempt to provide more-equitable access to health care for pregnant women. Some women were living on outstations, small settlements on clan-group ancestral lands. The 1970s were characterised by political and social ferment, resulting in some Aboriginal people choosing to return and resettle on their ancestral land. Regular antenatal care involved monthly visits until 28 weeks gestation, fortnightly visits until 36 weeks and weekly thereafter. Such visits involved a physical examination, including weight, blood pressure, urine testing and a fundal examination. Routine medication during pregnancy comprised iron, folic acid and calcium.²⁴ Pregnant women were also encouraged to be regularly reviewed by the male medical officer, who visited every three weeks by plane.

In the earlier part of this era, women continued to seek local childbirth care, provided by carers who spoke their language and shared their cultural background. Now, drawing on information sourced from research interviews and others²⁵ women mostly presented to the clinic only when in established labour and were then admitted to the attached birth unit. The midwife and Aboriginal health workers provided for all the 'physical and psychological' needs of the woman during her labour.^{25(p13)} A supine position for the second stage of birth was encouraged by the use of a bed, and although obstetrical stirrups were on hand they were not routinely used. Many women laboured while chewing on a mild stimulant of tobacco rolled in ash. The leaves of a native tobacco plant were chewed during pre-colonisation times, but this commercially procured dried tobacco was introduced by the missionaries as a form of payment, including it in ration bundles. The birth of the placenta continued to be physiological, and uterotonic drugs were on hand for women who had excessive bleeding. As it had done for centuries preceding, the act of childbirth remained an event attended only by female practitioners and close female family members.

Research participants recalled that with no hospital kitchen and no staff to provide rotating care, women stayed at the clinic for only 24 h after the birth and were then discharged to return to their home camps. The poverty of living conditions at home camps and poor maintenance of sexual and perineal hygiene were of great concern to the midwives, who worried about maternal puerperal infection as well as neonatal sepsis while the infant's umbilical stump was not healed and its immunity immature.²⁵ At times, the mother's poor attendance at the clinic for postnatal care made assessment and management of these issues more difficult. Contraception was not routinely offered, although if medically prescribed, the religious staff continued to indirectly support its use through quiet tolerance. Although it was perceived that Aboriginal women did not wish to limit their family size, at least one non-religious midwife thought contraception may have been advantageous and well accepted by women as a means for lengthening the space between pregnancies. It was common for women to have had more than five pregnancies or to have given birth to five or more infants.²⁵

Maternity care practice remained influenced by both religious and biomedical beliefs and values. *The bush book*²⁴ at this time provided a standardised approach to undertaking remote health care in an Aboriginal community, but according to research participants, in *Saint Fiacre* it was a reference rather than a policy dictate. For example, *The bush book* discussed contraceptive use, but contraception was never routinely offered as part of

post-partum care. This cohort of nuns, perhaps being younger, appeared to be more critically reflective in their health practice. They had started to identify complex issues that they considered worthy of formal guidance, which they sought by writing to a Catholic moral theologian. They sought guidance on scenarios such as contraceptive use for females with intellectual disabilities, contraceptives and vaginal douching for female rape victims, and the support of condom use with the emerging threat of HIV/AIDS infection in remote Aboriginal communities.²⁶ These complex issues were clearly situated within a feminist paradigm, as the nuns showed an awareness of a gender-based power dynamic that limited Aboriginal women's ability to negotiate and decline sexual intercourse. Although in conflict with Catholic philosophies, they recognised that contraception and condoms may have been the only practical way in which a woman in those social environments could protect herself from unwanted pregnancy, infection or disease. The nuns also expressed great moral concern that many women were giving uninformed consent to reproductive health procedures, such as tubal ligations, abortions and hysterectomies, and many of the women who were undertaking such procedures remained unaware of the implications and permanency.

Maternity care practice was also shaped by biomedical values that sought to classify women according to obstetric risk. Non-Aboriginal participants recalled that medical screening and history taking were used to decide which women should be asked to travel and give birth in hospital in town. All participants concurred that it was considered best practice for only 'normal births' to occur in the *Saint Fiacre* birth unit. According to a journal source,²⁵ women meeting any of a set of criteria were discouraged from staying for childbirth. The criteria included a first or greater than fourth pregnancy; foetal malpresentation; multiple pregnancy; maternal heart disease, hypertension or diabetes; severe anaemia; or an obstetric history complicated by a previous caesarean section, prolonged labour or post-partum haemorrhage. Despite the intention that these women travel in late pregnancy into town, they did on occasion give birth in the local clinic before an evacuation was possible. All women sought assistance from and attended the clinic for childbirth, and there was no demonstrated preference for unsupported birth at a home camp or in a bushland estate. In addition to these criteria, any woman could also elect to have her baby in town, with all costs met by the state. Despite this availability of choice, few women took it up; town was generally disliked for being an unsafe place, and most women preferred to be cared for in familiar surroundings and by Aboriginal health workers who spoke their language.

7. Discussion

Over the past 75 years, Aboriginal women in *Saint Fiacre* have experienced dramatic changes in maternity care: how, where, what and with whom. For the most part, these changes to maternity care have occurred without considered consultation, advice or input from the women and families affected. Colonisation of traditional reproductive knowledge and practices was the catalyst for a new Aboriginal maternity caregiver role. This pioneering health role saw young Aboriginal women, without cultural midwifery status or knowledge, apprenticed to Western-trained nurses and midwives in the provision of maternity care. Although perhaps not the intention, this approach was a highly effective apparatus for colonising Aboriginal childbirth practices, rapidly undermining the authority of culturally appointed midwifery practitioners and destabilising many centuries of local reproductive practices. Over the following eras of maternity care, the scope of practice of the female Aboriginal birth attendant broadened and professionalised into the formal career pathway of what became known as the 'Aboriginal health worker'. Female

Aboriginal health workers who looked after the *Saint Fiacre* community were readily accepted by pregnant women as their maternity care providers, and they were highly esteemed and valued by both their own people and their non-Aboriginal colleagues. Aboriginal health workers made significant and lasting contributions to the wellbeing of women in their community, often doing so by bridging Aboriginal, European, Christian and biomedical world views, with the added expertise of practising in numerous languages. Across each of the historical eras of maternity care, an additional important factor in the provision of successful maternity services has been the personal approach of non-Aboriginal nurses and midwives, who have supported and valued the contributions made by Aboriginal women in caring for other local women.

The introduction of Western maternity care appears to be one of a range of factors that led to a sustained population increase in *Saint Fiacre*, and in turn demonstrates both the success and the effects of providing primary maternity care and planned childbirth in a local setting for remote Aboriginal women. Although suggested that additional factors spurred population growth, including 'mission-induced sedentariness'^{27(p228)} leading to increased fertility and better child survival, it cannot be ignored that steady increases in the population through the 1950s, peaking in the 1960s,^{27(p222)} also coincided with the establishment of health care services. Importantly, this included the arrival of Western-trained midwives, the establishment of dedicated health buildings and a hospital, and the provision of skilled and resourced primary maternity service coupled with the active participation and involvement of Aboriginal women.

When the mission began, the population was recorded as 138 people, and of this total only 47 were children (24 male and 25 female), with one demographer^{27(p219)} suggesting that this figure represented only a select portion of the population or, more likely, that the infant mortality rate was high. The likelihood of a high rate of infant mortality affecting the population's demography is also reflected in comments made by an anthropologist who accompanied the mission's founding party. This anthropologist noted the people to be in a poor psychological and physical state, suffering among other things from a high infant mortality rate and a population that had been depleted of women of child-bearing age through hostile kidnapping by neighbouring tribes.²⁸ In addition, a 1936 comprehensive review of the mission, undertaken by a medical assistant, noted with concern that there were no 'babes in arms' to be seen and he saw only one woman who was pregnant. The medical assistant believed 'if conditions go on as they are without help, the tribe in a few generations, will cease to exist'.^{16(p6)} Yet by 1950, after pioneering health services had been established, which involved the combined practice of Western and Aboriginal maternity care providers, the population had grown to 310.²⁷ In 1952, the same anthropologist remarked in a newspaper article^{29(p6)} that the people of *Saint Fiacre* had been 'reproducing so fast that their numbers may double within the next 20 years'. He attributed much of this population increase to the 'good medical services now available'. With targeted midwifery care that nurtured pregnant woman and their newborn infants, the introduction of primary maternity services may well have been pivotal in the long-term resilience of *Saint Fiacre* people, whose population in the year 2003 numbered 2260.³⁰

Historical examination of the health infrastructure and maternity care services demonstrates responsiveness towards the goal of providing health care to a growing population. The territory government, despite an established trend of population growth and growing demand for primary maternity services, eventually withdrew all childbirth care and services from the local setting. To date, no historical documents or government policy on hospital birth has been located in publicly accessible national or

territory archives or in the collection housed in the territory hospital library that could illuminate the reasoning behind such a radical change in health-service provision. It seems that it coincided with larger Australian-wide agendas of centralising and consolidating the location of birth from regional to urban hospitals. Therefore, the withdrawal of birth services can only be understood in hindsight as perhaps an attempt to address ongoing poor maternal and infant health outcomes by providing 'better' maternity care services. In 1979, a government source noted that for some years territory policy was to encourage Aboriginal woman 'to deliver their babies in hospital' rather than the presumably remote 'health centre', especially if there was any risk of 'abnormality', and that the percentage of women electing to have their babies in hospital had increased from 27% in 1965 to 75% in 1979.^{31(p30)} The territory-wide withdrawal of remote local childbirth services was a blunt approach because it failed to acknowledge the wide range of skills and resources available to Aboriginal women and their infants in different remote settings.

Unlike perhaps in other under-resourced localities, the women in *Saint Fiacre* had access to childbirth in a clean and hospitable setting with trained Aboriginal and non-Aboriginal health staff who were skilled in midwifery care and access to timely evacuation by plane in the case of emergencies. In addition, women reported a high sense of satisfaction with and acceptance of the local maternity health services. At the time, they were given the choice to give birth in close proximity to their family and young children, in a familiar environment enhanced by spiritual qualities, with a known and trusted Western midwife and an Aboriginal health worker who, sharing the women's culture and language, could support and reassure during the challenges of giving birth.

For many non-Aboriginal staff members who provided maternity care in *Saint Fiacre* and participated in this research, it was difficult to understand why childbirth services were withdrawn. As health infrastructure and technology improved, it was perceived that community birth could only become safer and less hazardous. As one of the religiously trained midwives said:

It is a great pity that the women have to go into town . . . what reason do they give? If I remember correctly we didn't lose either mum or bubs during deliveries and were able to evacuate anyone who needed to go. And that was when there were no resident doctors!

Participants in this research did not recall any incidences of maternal or neonatal death attributable to either the care or lack of care during childbirth. There were, of course, incidences of premature infants with very low birth weight dying due to an incompatibility with life, but participants who reported these deaths believed the same outcome would have occurred in a tertiary hospital setting. Historical statistical analysis of neonatal and maternal health outcomes as a measure of maternity care quality is fraught with challenges in *Saint Fiacre*. This is due to the relatively small population size, incomplete records, missing local birth registers, inconsistent reporting of data variables and inconsistent Aboriginal ethnicity reporting practices. There are, however, the private fieldwork records of the anthropologist who accompanied the founding mission party, which document births and deaths in *Saint Fiacre* over the years 1935–1973. Although it is not possible to cross reference the anthropologist's data to enhance its reliability, simple analysis of his records demonstrates an exceedingly high infant mortality rate ranging from 76 to 333 deaths per 1000 births in the years 1935–1949, after which the rate trends downwards. It is possible to compare the anthropologist's *Saint Fiacre* data with the Aboriginal infant mortality rate for the entire Northern Territory over the years 1965–1973, the heyday of community-based childbirth. When five-year averages are compared, *Saint Fiacre* shows consistently lower rates of infant

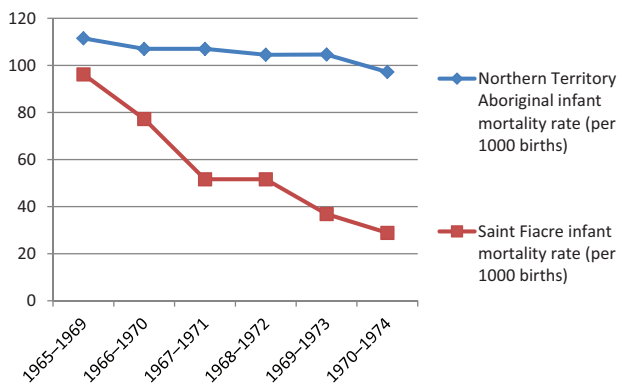


Fig. 1. Aboriginal infant mortality rates in moving five-year averages for the Northern Territory and Saint Fiacre.

Source: [Author omitted]³² and Northern Territory Government Department of Health.^{31(p35)}.

mortality than the rest of the Northern Territory during the same periods (see Fig. 1). The exact relationship between *Saint Fiacre's* infant mortality rate and childbirth location remains unclear; however, it does demonstrate that if evaluated on one key indicator of population health, local health services of the time were performing well when compared with the rest of the territory.

The women of *Saint Fiacre* quietly witnessed the withdrawal of childbirth services; along with the multitude of other significant changes that colonising forces continued to impose on their daily lives. In a gendered history shared with many other Indigenous and non-Indigenous women alike, their right to reproductive choice was silently overlooked by a hegemonic medical system, and the distress of leaving home and family for extended periods to give birth in town was theirs to silently bear. For female Aboriginal health workers, the withdrawal of childbirth services dramatically limited their scope of clinical midwifery practice and abruptly prevented career pathways for future Aboriginal midwives. The social status and value of these Aboriginal health workers who assisted women during childbirth continued to persist for many years in the community. More than a decade after the cessation of childbirth services in *Saint Fiacre*, some of these retired Aboriginal health workers informally practised, supporting their own female family members to undertake childbirth in the town because the health services offered no alternative to hospital childbirth in Darwin.³³

The historical trend for removing support of remote-based childbirth services is evident for other Indigenous and colonised peoples in remote settings. Most notably are the remote northern-Canadian Inuit communities, whereby the mid-1970s standard maternity care was the 'evacuation' of all pregnant women to give birth in hospital, often far-away in southern Canada.³⁴ For these Inuit communities midwifery was an essential expression of their traditional culture^{34–36} and the geographical removal of childbirth perceived as an act of 'disrespect' and neglect' but also as a 'colonialist approach' to the provision of maternity and health services to Indigenous people.^{34(p387)} At the same time as childbirth services in *Saint Fiacre* were restricted and eventually withdrawn, remote Inuit women on the Hudson Bay coast re-introduced childbirth services to their community through the opening of the *Puvirntuq Maternity* in 1986. With a philosophy that was committed to the involvement and education of local Inuit health workers and an approach that was based on the principles of community development, this successful model for maternity care has since inspired other similarly remote Inuit settlements, to bring childbirth back to their home community.³⁴

8. Conclusion

The maternity care experiences in the community of *Saint Fiacre* of both Aboriginal and non-Aboriginal women alike highlight the rich history of midwifery practice in remote settings in the Northern Territory. Women's experiences unearth a unique local context, where pioneering Western midwifery acted as an apparatus of colonisation first and then, with the passage of time, as an instrument of care for nurturing Aboriginal women's resilience. Although the decision to withdraw local childbirth was likely well intentioned, it has come at a significant cost to the women. In reproducing and sharing their history, Aboriginal women help us to better understand the future challenges of providing remote midwifery that truly 'cares' rather than 'colonises'.

Acknowledgments

Fieldwork for this research was funded by the Lowitja Institute, Australia's National Institute for Aboriginal and Torres Strait Islander Health Research [Grant # schol005].

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