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Breastfeeding experiences and infant feeding decisions for women birthing Aboriginal children in Adelaide, South Australia: a qualitative study

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Abstract

Background Increasing breastfeeding rates among Aboriginal and Torres Strait Islander (hereafter, respectfully Aboriginal) infants could improve health outcomes that disproportionately affect Aboriginal children into adulthood. This study was undertaken with mothers birthing Aboriginal children in Adelaide, Australia. The study sought to: understand their perceptions, motivations, influences and experiences around breastfeeding; explore factors affecting the ability to breastfeed; perceptions of alternative feeding options; and experiences of care to support breastfeeding.

Methods Semi-structured Research Yarning interviews were conducted between November 2020 and May 2022 with 30 mothers who birthed an Aboriginal baby within metropolitan Adelaide, Australia, within the previous 18 months. Women were invited to participate if they were enrolled in a larger cohort study known as the Aboriginal Families and Baby Bundles Study, or had antenatal care from the local Aboriginal community controlled health service, were aged 16 and over, and were involved in feeding the child since birth. Three female Aboriginal researchers undertook the Yarning interviews, which were transcribed and analysed thematically.

Results Participants demonstrated a strong desire to breastfeed and described a range of factors impacting on their ability to establish or maintain breastfeeding. The role of healthcare providers was key to breastfeeding success with participants reporting both positive and negative care experiences. Participants described supportive experiences as those where non-judgemental care was provided that was tailored to their needs, included Aboriginal staff, and provision of continuity of care. Mothers described negative effects of their experiences of racism and ageism (young mothers) from care providers.

Conclusions Aboriginal women expressed a range of challenges to sustaining breastfeeding that could be addressed by increased investment in provision of timely, non-judgemental postnatal care tailored to their social and cultural needs, including access to specialised lactation care in the hospital and including facilitated continuation of successful breastfeeding at home.

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Keywords Breastfeeding, Lactation, Lactation consultant, First nations, Cultural safety, Infant feeding

Background

Breastfeeding is associated with improved child developmental outcomes [1], has a protective effect against infection in infants [2, 3], and is associated with better metabolic health outcomes later in life [4]. These are all important health issues for Aboriginal and Torres Strait Islander (hereafter, respectfully referred to as Aboriginal) populations in Australia [5]. A systematic review by Springall et al. found significant variation and inconsistencies in reporting of breastfeeding data among Aboriginal populations across jurisdictions, but breastfeeding rates for Aboriginal infants are consistently reported to be lower than in non-Indigenous populations [6, 7]. For example, utilising data from several national surveys, the Australian Institute of Health and Welfare (AIHW) Breastfeeding report 2023 [6] identified that 96% of Australian children aged 0–3 years had ever been breastfed, compared with 85% of Aboriginal and Torres Strait Islander children aged 0–3 years [6]. Further, 35% of Australian children and 19% of Aboriginal and Torres Strait Islander children were exclusively breastfed to 6 months [6].

A recent scoping review of factors influencing Aboriginal women's breastfeeding practices focused on four main factors [8]: sources of support; culturally appropriate care; intention to breastfeed; and social determinants. Community and family knowledge and support were key drivers for improved breastfeeding outcomes in a number of studies [8]. Cultural safety is about ensuring all people have a safe and healing journey through services, regardless of their cultural background, and a lack of cultural safety contributes to the persistent disparity in health outcomes between Aboriginal and Torres Strait Islander and non-Indigenous people [9]. The term culturally appropriate care is used interchangeably with other terms such as cultural safety, cultural respect, and cultural security in the literature and includes the actions taken by perinatal health service staff whereby Aboriginal people feel safe to access health services [10]. Further, culturally secure care involves an organisational approach through policies and procedures being enacted from first contact with an Aboriginal person, family or community.

In an Australian context, midwives, lactation consultants, Aboriginal Health Workers and/or practitioners, and General Practitioners are available to provide breastfeeding support and advice, and maternal and community outreach support following birth. This support has been shown to be crucial to breastfeeding initiation and maintenance [11–13]. The intention to breastfeed or to use formula is strongly associated with social and psychological influences such as attitudes of partners, family members, intergenerational support, and past experiences [14]. However, pregnant Aboriginal women experience a higher prevalence of perinatal and social risk factors associated with poor breastfeeding outcomes. For example, Aboriginal women are five times more likely to smoke during pregnancy and have a doubling in risk of preterm birth than other Australian women [15]. Aboriginal women continue to live with ongoing effects of colonisation, such as intergenerational trauma from policies of displacement of Aboriginal and Torres Strait Islander people from traditional lands, disconnection from family, culture and Country, and forced child removal from family and communities [16, 17]. Continued impacts are reflected in pregnant Aboriginal women facing a disproportionate number of stressful events caused by social factors and risks, including housing insecurity, grief and loss, and financial difficulties [18, 19], which can negatively affect maintenance of breastfeeding and decisions around feeding [16]. Additionally, examination of institutional racism and system biases has demonstrated that Aboriginal families are at almost double the risk of infant removal by child protection authorities before the child is one year old [16] and child removal disrupts breastfeeding at multiple levels including intergenerational transfer of knowledge impact on breastfeeding rates in Aboriginal communities [13, 20].

This study was conducted in Adelaide, South Australia, a capital city area with a population of approximately 1.39 million people in 2021 [21]. In greater Adelaide, 1.7% of the population in 2021 identified as Aboriginal and Torres Strait Islander [21], and 4.1% of women giving birth in South Australia in 2020 identified as Aboriginal [22]. Previous consultations with Aboriginal community members across South Australia identified that having strong and healthy babies was a key research priority area for communities [23]. As there has been limited research undertaken with Aboriginal families in South Australia regarding infant feeding, we sought to understand the experiences of women giving birth to Aboriginal babies in Adelaide with a specific focus on breastfeeding.

Rationale and objectives

This research had the following aims:

1. Understand the perceptions, motivations, influences and experiences around breastfeeding among women who gave birth to an Aboriginal baby in the Adelaide region;
2. Explore factors that hindered or supported the ability to establish and sustain breastfeeding;

3. Explore perceptions and experiences of alternative and complementary feeding options;
4. Explore experiences of care including support for breastfeeding that was perceived as respectful and appropriate for women giving birth to Aboriginal babies.

Methods

Setting

This study was a nested qualitative study among women who were planning to birth in Adelaide, South Australia, metropolitan hospitals, who received their antenatal care in an Aboriginal model of care, and who were either enrolled within a larger cohort study (the Aboriginal Family and Baby Bundles study (ABFABB)) (NHMRC APP111534; Clinical trial number: not applicable), or who were having their care provided through the metropolitan Aboriginal community-controlled health organisation, Nunkuwarrin Yunti.

Design

The nested study employed Indigenist ways of knowing and being, to ensure Aboriginal priorities, protocols and principles were followed in all steps of the study, supported by Aboriginal leadership and focus on Aboriginal voices [24–26]. The research design was qualitative, drawing on a number of methodological approaches, including phenomenology [27], thematic analysis [28] and Yarning [29], in order to gather a broad range of information related to breastfeeding which included any or exclusive feeding directly at the breast or feeding with expressed breast milk, intentions to provide breast milk, social and cultural influences and impeding factors, availability of support, as well as the transition to solid foods.

The research was informed by phenomenology as our goal was to explore the experiences of women without preconceived ideas, and thematic analysis where insights are generated from the data itself. This approach was implemented in a culturally safe manner through semi-structured Yarning interviews conducted by female Aboriginal researchers. Yarning is an established Indigenous research methodology where Aboriginal knowledge is prioritised [29].

Participants were offered a face to face interview, phone interview or written, via email. The majority of interviews were conducted via telephone ($n = 26$), with three interviews conducted face-to-face and one via email as requested by the participants. In addition, the research attempted to capture any elements of the service provision or support that was culturally safe, or conversely, culturally unsafe. Data collection took place between November 2020 and May 2022.

Governance

This nested study was developed with oversight by the ABFABB Aboriginal Advisory Group, in line with priorities identified by Aboriginal community members as part of a community consultation forum. The study was implemented and managed by the Aboriginal Communities and Families Health Research Alliance (ACRA), based at the South Australian Health and Medical Research Institute (SAHMRI) in Adelaide. Advice was provided relating to inclusion and exclusion criteria, study aims, research Yarning approach, researcher characteristics, results and offer of authorship on this manuscript.

Inclusion and exclusion criteria

Criteria for inclusion in this study were: (1) women who participated in the ABFABB study (antenatal care at Women's and Children's Hospital) or received antenatal care through Nunkuwarrin Yunti; (2) birth mother to an Aboriginal child born in the 18 months prior to interview; (3) involved in feeding the child from birth; and (4) mother was aged 16 years or over at time of enrolment. Participants were excluded if they did not meet the inclusion criteria or who did not have the ability to make their own informed consent.

Participants

A convenience sampling strategy was employed. Participants in the ABFABB study who had already given birth were offered information about the study via their preferred contact methods (email or phone), those who responded were invited to participate. In addition, Nunkuwarrin Yunti staff provided interested women who had recently given birth with information about the study and facilitated completion of a consent to contact form. This form was then handed to researchers who called women to confirm eligibility and obtain consent. Seventy-eight mothers of Aboriginal babies were invited to take part and a total of 30 women were enrolled and completed interviews (34 didn't respond, 5 declined, and 9 accepted but didn't respond to further communication). Mothers were included from ABFABB ($n = 25$) and Nunkuwarrin Yunti ($n = 5$), and births occurred at metropolitan hospitals ($n = 28$) and an inner regional hospital ($n = 2$). The age range of the women participating in the study was 20–41 years, with a median age of 29 years. Nearly two-thirds of the women ($n = 21$) identified as Aboriginal, and all non-Aboriginal mothers reported that the father of the baby identified as Aboriginal. None of the participants reported that their baby was of Torres Strait Islander heritage. Twenty-nine participants (97%) initiated breastfeeding.

Data collection

All Yarning interviews were conducted by three female Aboriginal researchers (KH, CC, KG) who were not involved in the provision of antenatal or postnatal care to participants. Having Aboriginal researchers who were parents or aunties themselves facilitate the Yarning helped to establish commonality and respectful conditions that encouraged deep conversations. To open the Yarning interview, Aboriginal researchers introduced themselves through their cultural connections and described who was in the team for this research. Participants were then invited to introduce themselves. Non-Aboriginal women gave their own introductions in their own ways and named the Aboriginal group of the baby's father where it was known. Participants were asked their age and the number and ages of any children they had breastfed. They were then asked a series of open-ended questions that encouraged women to tell their story about their lived experiences of breastfeeding, alternative feeding and complementary feeding (see definitions below), including at which age their child began complementary feeding, and experiences of support to breastfeed. This was followed by questions around awareness of donated breastmilk through milk banks, then questions around experiences of social issues and life stressors during pregnancy and in the 12 months following giving birth. After initial completion of the interviews the staff members had the opportunity to debrief with senior Aboriginal members of the research team which provided an opportunity to reflect on positionality and seek support if the yarning revealed traumatic experiences.

Data handling and security

As the majority of Yarning interviews were conducted via telephone, the transcripts were typed directly into the data collection tool in Microsoft Word by the researcher conducting the interview. These were then de-identified prior to analysis. Transcribed interviews were not offered to participants, broader study updates were included in newsletters and emailed where participants had asked for them. Where handwritten physical transcripts exist, these were filed within keycard-access facilities at SAHMRI, with authorised researcher access only, and scanned. Electronic versions of all transcripts were stored in password-protected folders on servers hosted at SAHMRI.

Definitions

During the Yarning interviews, participants were asked about any breastfeeding. A definition was not put forward by the researchers to participants, allowing the participants to define breastfeeding as appropriate for their experience without the risk of stigma or judgement. In this paper we define breastfeeding as either feeding directly at the breast or feeding with expressed breastmilk. Additionally, to ascertain whether women were exclusively breastfeeding, women were also asked, "how long were you exclusively breastfeeding, or not feeding anything else to baby?" Alternative feeding is used in this paper to describe sources of breastmilk other than mother's own milk. Complementary feeding is defined as feeding an infant with any food or drink other than breastmilk or infant formula.

Data analysis

Analysis and interpretation were conducted through collaborative review of interviews by the research team (KH, CC, KG, PM, KLP, AB). The Framework Method [30] was used and developed by collective data familiarisation to build the framework from emerging themes and concepts. The researchers then discussed initial findings at team meetings with experienced Aboriginal and non-Aboriginal members of the research team to clarify any discrepancies and identify any information that may be culturally sensitive and indexed these and drafted the Framework. The data was then summarized and looked at systematically in charts using a spreadsheet and no changes were made to the Framework. The mapping and interpretation of the data was undertaken by the team to develop and reach agreement on the units of analysis themes and concepts. The following units of analysis were identified: mothers' experiences of breastfeeding initiation, continuation, and alternative and complementary feeding; maternal experiences of care and the cultural safety of the care provided; and personal feelings of wellbeing through the breastfeeding journey. Findings were further checked with an Aboriginal member of the team involved in health care delivery at one of the sites (CL).

Results

Intentions and motivations to breastfeed

All of the participants in this study had considered breastfeeding prior to giving birth and most expressed a strong desire to breastfeed, citing reasons such as being healthier for baby, being free and having a family history of breastfeeding. Multiple women described how positive attitudes around breastfeeding among family members and friends were motivators to initiate and maintain breastfeeding.

> *Everyone in my family said it was best for baby; my sister was breastfeeding her baby and was open and good about it. My sister's mother-in-law was a breastfeeding consultant so had views about breastfeeding that were helpful. (participant 24)*

One mother had been ambivalent about breastfeeding prior to the birth of her child, but changed her mind when breastfeeding her child was easier than expected:

I wasn't going to breastfeed. I had friends that couldn't, and I didn't really want to. I wanted to go back to work straight away, didn't want to pump and put all that stress on myself trying to work and timing feeds. My milk came in straight away, [baby] latched easily, [baby] fed easily from the start. It's a gift and I shouldn't give it up. (participant 4)

Only one mother decided prior to giving birth that she would not initiate breastfeeding despite having a strong desire to be able to, citing a negative prior experience with breastfeeding.

I didn't do it [breastfeeding] because of mastitis, nipples were bleeding, had bad mental health last time, and it was just too much. I made the decision before [my second child] was born because of how it went last time. I had a traumatic labour experience with first baby…I went to hell and back with the nurses after my last child. (participant 5)

Many women expressed their disappointment and sadness at having to stop breastfeeding earlier than they had intended or wished:

I really wanted to breastfeed [my babies] longer. If I still could, I would be expressing now. I think it's the best for them…I would give anything to be able to breastfeed my babies again." (participant 7).
"When I had to start bottle feeding [baby], I felt like a piece of me was going. (participant 24)

Factors impacting on ability to Establish and sustain breastfeeding

Participants described a range of difficulties that they faced in the early stages of breastfeeding, including supply issues (both a lack of milk supply and difficulties with oversupply), lack of physical access to breastfeed the child due to the baby being admitted under special or intensive care, breast issues or discomfort (including mastitis), complicated pregnancy or birth, issues with baby latching onto the breast, a lack of advice or support around breastfeeding, and more. Factors that had a significant impact on the duration of breastfeeding for multiple participants are explored in greater detail below.

Lack of milk supply

Lack of milk supply was a common issue reported by participants. One mother reported that her traumatic labour had negatively affected her supply of milk, and she was not able to continue breastfeeding as a result:

I tried to breastfeed, gave up within 36 h of leaving the hospital. I had a 40-hour labour, I was on antibiotics, then 24 h before [baby] came, I went through a lot of trauma. I lost a fair bit of blood during the birth, my milk didn't come in because of this. [Baby] was starving, wasn't getting enough from me. (participant 14)

A mother of twins struggled to supply enough breastmilk for both twins:

I really wanted to breastfeed them longer. If I still could I would be expressing now. [Twin A] would drain the life out of me, [twin A] was always a boobie monster… But [twin A] just wanted more than I had. (participant 7)

Other mothers persisted with breastfeeding past one month but were unable to exclusively breastfeed due to supply issues or baby struggling to breastfeed.

Because [baby] was so small, [baby] didn't last long with feeding because [baby would] get too tired. They asked me to express all the time and then put it through [baby's] tube. [Baby] wasn't putting weight on. (participant 22)

Access to a lactation consultant

Most mothers reported needing breastfeeding support. While midwives can provide breastfeeding advice, a lactation consultant (LC) can tailor breastfeeding support to the specific needs of a mother struggling to establish breastfeeding. One mother reported that support from a LC made a significant difference in her breastfeeding journey:

I saw the ABFABB LC, she was really good. She is the reason why [baby] latched. At 2 months old, felt under control. I also did online research– wasn't bad, but I thought the LC was better…The LC did keep in touch via text to check in to see how I was going. I thought this was great and felt this was beneficial. (participant 77)

Some mothers who were not offered a LC expressed dissatisfaction and regret, believing that LC support could have changed their breastfeeding outcome.

One was not offered. Lactation consultant would have made all the difference. (participant 22)

One mother who birthed on a weekend believed that she was not offered a LC because none were available on the weekends. She also expressed dissatisfaction with the postnatal management of her concerns, and felt that the lack of acknowledgment of her struggle affected her confidence in feeding her baby.

> *No lactation consultant was offered to me ([because] I birthed over a weekend), and the next time I tried to feed [baby], it was difficult and [baby] wasn't latching. The midwives kept saying [baby] was fine, then [baby] was screaming again and they kept telling me [baby] was fine. No-one offered me support or extra feeding. (participant 14)*

Availability of breastfeeding support soon after birth

With regards to available support with breastfeeding, women described support that they received from family members, especially their own mothers, family friends, midwives in hospital, LCs, home-visit nurses, and Aboriginal Maternal and Infant Care (AMIC) workers. However, several women felt a lack of support that negatively affected their ability to establish or maintain breastfeeding. One mother lost motivation to persist with breastfeeding, feeling that there was a lot of judgment around suggesting that a bottle be used. She felt that the postnatal staff "push breastfeeding, but in an unhealthy way": "I was interested to breastfeed but felt like no one was really invested in helping me (without judgement)" (participant 30).

A mother of twins hoped for specific support around feeding her twins simultaneously, but this support was not offered: "I wasn't getting good advice and no advice about how to feed twins. I wanted to tandem feed, really wanted to do it" (participant 7). Another mother reported that she was offered printed information materials only:

> *The nurses asked if I wanted to breastfeed and I said yes, but there was no support offered beyond that. They were leaving it in my court for [baby]. They sent me home with a leaflet and a lactation consultant information booklet. (participant 30)*

Some reported a lack of timely navigation from the hospital to support services:

> *No one came to speak to me about breastfeeding at the hospital. They weren't helping with trying to get [baby] on the boob…I was about to call it quits and just formula-feed but I persevered. (participant 24)*

Social factors impacting breastfeeding

Many women experienced challenges during pregnancy or in the 12 months postpartum, such as having to move house or changes to employment or study. One mother described how financial stress forced her to return to work earlier than desired, which impacted her breastfeeding duration:

> *I do try to breastfeed where possible, but I am having to work night shifts now which has affected the way my son latches…I'm quite upset that I had to stop breastfeeding at nighttime to work. If money wasn't an issue, I never would have returned to work so early, at 6 months. (participant 21)*

Even having returned to work, this mother was struggling to make ends meet at time of interview:

> *I do receive some help by my parents, but I am embarrassed to ask for more help. I will always make sure my son has what he needs before me. I have been eating at my parents for the past few months as I am unable to buy enough meals for myself. (participant 21)*

Some mothers reported feeling pressure from family members to formula feed their children or to supplement feeds with solid foods earlier than recommended, while other mothers lamented an overall lack of family support.

> *My mum was stressing me out during breastfeeding, this may have had an impact, whereas my partner's family were more relaxing to be around. (participant 17)*

Tobacco, drug and alcohol use during pregnancy and breastfeeding

The women who participated in this study demonstrated awareness that tobacco, drug and alcohol use would be harmful during pregnancy and breastfeeding but highlighted a lack of support around quitting and risk mitigation.

With respect to supports for tobacco cessation, multiple mothers explained that they were advised to quit smoking but not provided any support to do so. Mothers who continued to smoke while breastfeeding their children expressed anxiety about the timing of smoking and breastfeeding to protect baby as much as possible from nicotine in the breastmilk: "No one spoke about the best times to smoke when breastfeeding." (participant 5).

Perceptions of alternative sources of breastmilk and complementary feeding

Cross-feeding

Participants were asked whether they or their family members had ever participated in cross-feeding of their own or another person's child. Only one woman reported having cross-fed for a family member's baby.

Although women indicated that they were willing to participate in cross-feeding, none reported that their baby had been cross-fed by anyone else. Some women indicated that they had family members who had participated in cross-feeding, and others were aware of the practice happening in the broader Aboriginal community.

Donated breastmilk

The interviews also explored awareness, acceptability, and use of donated expressed breastmilk. In South Australia where this study was conducted, donated breast milk became available for hospitalised infants (generally born preterm or low birth weight) in late 2018, supplied to maternity hospitals from the Australian Red Cross Lifeblood. Participants were asked if they had heard about this service and whether they would consider either using donated milk or donating milk themselves. Most participants indicated that they would be willing to donate breastmilk, and several also indicated a willingness to receive donated milk if it had been necessary or available to them. Two participants had offered to donate excess breastmilk via the hospital but were told that the hospital could not take donations.

Transition to complementary foods

For the purposes of this study, complementary foods are defined as any food or drink other than breastmilk or infant formula. Complementary foods were introduced at a median age of four months old. Mothers reported that complementary foods were introduced at a median age of four months old. For the mothers who reported that their child had transitioned to complementary foods prior to the recommended six months of age, reasons included reading baby's developmental cues, following own intuition, doing own research, and receiving advice from health professional(s), family or friends around the introduction of complementary foods. Two mothers transitioned early because their babies had reflux, one mother because her child wasn't gaining weight quickly enough, and one mother reported that her child had a big appetite.

Experiences of hospital care post-birth

The participants in this study had a range of both positive and negative hospital experiences that impacted their motivation to persevere with breastfeeding.

> *Midwives, nurses and the amazing health care support team when I would come for my regular visits at the hospital until the day I gave birth. They were so reassuring with everything. Every question I had was answered. They were caring, they genuinely cared about myself and my [baby]…When I gave birth, the midwives helped me with latching. (participant 21)*

One-third of the women reported an unsupportive experience during their hospital stay, mentioning that they felt judged about their parenting, their age, their mental health state, or for being Aboriginal.

> *They said that if I was going to bottle feed then I had to get up and do it myself, they weren't being very supportive. I was crying, I had only just turned 19, but I didn't really know what I was doing. I feel like they weren't very supportive because I was young and Aboriginal. (participant 30)*
>
> *The [child and family health service] nurse was helpful at home, why couldn't they have been helpful at the hospital? The way they speak to you isn't nice. It would have taken one midwife to come in the first day and help. (participant 24)*

Experiences of in-home care post-birth

Following discharge from hospital, the availability and quality of in-home care also impacted on infant feeding and breastfeeding specifically. Women described elements of care that they found to be respectful, appropriate, and supportive. One mother's experience of in-home care following the birth of her child demonstrated the importance of continuity of care and culturally appropriate care. The midwife who attended the birth visited her at home following discharge and provided feeding support, and Aboriginal health workers visiting the home provided social, cultural and emotional support.

> *Nurses that came out from hospital to home the day after we left. They were GREAT. One lady was in the labour room with me, she came out to the house, and she booked a second appointment and came out again, made sure [baby] was feeding properly. Got a lot of support with feeding. [The Aboriginal health service] comes out every 3 weeks or so, Aboriginal Health worker and an Aboriginal Liaison officer. They're amazing, I don't have any family in South Australia so quite lonely. They are very comfortable people; it's like having friends over. (participant 4)*

Another woman described her positive experience with health service nurses who visit regularly:

[Childhood health service] nurses came out to see me and still see me now. As soon as midwives stopped coming, [the childhood health service] nurses started coming. Being able to ask questions, not feel judged and stupid. I was really lucky with the ones I've had, they've been amazing. They come pretty much once a month for first two years. I've got a whole folder of booklets and sheets et cetera, to help me. They get back to me with info if I need it. Milestones, et cetera, really handy. I can text them with any concerns. (participant 23)

Discussion

This research sought to understand experiences of infant feeding and feeding support available to women giving birth to Aboriginal babies in Adelaide, South Australia. Study participants demonstrated strong desires and intentions to breastfeed, in line with evidence from other studies including Aboriginal mothers [8, 11, 13]. Perceptions and experiences of breastfeeding among family members and friends were frequently described by participants as influencing their intention to breastfeed. This is consistent with research showing that the support of a child's father and maternal grandmother were strong influencers of breastfeeding at discharge in a group of mothers in Perth, Western Australia [31].

Cessation of breastfeeding earlier than they had planned was emotionally difficult for the participants in this study. Participants described facing a range of barriers to establishment and maintenance of breastfeeding which are consistent with factors identified in other studies conducted with Aboriginal mothers [8, 32]. Many of the participants were impacted by social pressures and stressors during and following pregnancy. First Nations women face a high and disproportionate burden of social factors that have the potential to negatively impact on breastfeeding. Previous research in South Australia and New South Wales demonstrates that Aboriginal women experience high rates of stressful life events during pregnancy, as well as high levels of psychological distress postpartum [19, 33]. In New Zealand, Indigenous mothers experienced a greater number of stressful life events when compared to non-Indigenous mothers [34]. There is evidence from Australia and the US that stressful life events are associated with decreased odds of sustained or exclusive breastfeeding, particularly among low income mothers, Black American mothers and mothers aged less than 30 years [35–38]. The impact of stress and psychological distress on breastfeeding initiation and duration among Indigenous mothers in settler-colonial societies warrants further exploration to identify culturally appropriate strategies to mitigate stress.

Several mothers smoked during pregnancy and/or postpartum, and they identified a need for better advice around the timing of smoking and breastfeeding, similar to advice that is currently provided around the consumption of alcohol and breastfeeding (for example, whether it is safer to breastfeed or express breastmilk prior to having a cigarette). Smoking in pregnancy has been shown to be associated with not initiating breastfeeding and early cessation of breastfeeding [35, 39], highlighting the need for more effective and supportive strategies for tobacco cessation and risk reduction in Aboriginal communities.

Our findings demonstrate that healthcare providers play an important role in shaping success with breastfeeding. Almost all the women in our study wanted and expected to breastfeed, and it was clear that timely access to lactation consultants and other supportive and culturally appropriate postnatal care was valued among mothers to Aboriginal infants in their breastfeeding journey. Postnatal care was well received overall, and specific breastfeeding support was beneficial when provided. However, for several mothers, breastfeeding support was not provided when it was most needed, and access to non-judgemental support was limited. Systematic reviews of qualitative [32] and quantitative [39] evidence around the factors affecting breastfeeding among Aboriginal mothers in Australia have demonstrated the importance of access to culturally safe and supportive postnatal care. Timely access to a LC for all Aboriginal mothers immediately following birth could lead to greater establishment and success of breastfeeding among Aboriginal infants. Encouraging and facilitating Aboriginal nurses, midwives, health workers and health practitioners to complete LC training or recognised short courses in supporting breastfeeding by the Australian Breastfeeding Association could help to ensure that the care provided is culturally relevant and respectful.

Information on introduction of solids to Aboriginal babies is sparse. While as many as 51% of Aboriginal infants were introduced to solid food prior to four months of age in a Melbourne cohort [40], a majority of mothers in the present study reported that their child(ren) started solids around four months of age, earlier than age six months as recommended in the Australian infant feeding guidelines. Shared breastfeeding or cross-feeding, where a child is breastfed by their mother as well as one or more other individuals, is not uncommon within Aboriginal family groups [41]. Only one participant in this study reported having cross-fed the child of a family member. In New Zealand, shared breastmilk feeding is acknowledged widely, and pamphlets are provided to mothers who would like to know how to safely share milk [42], yet there is a lack of similar guidance in Australia, indicating opportunities to improve breastfeeding and breast milk sharing information tailored to Aboriginal families.

Among participants in this study, the acceptability of donating or receiving donated breastmilk (donor milk) was high, and at least two mothers attempted to donate breastmilk via the hospital. In South Australia, breastmilk can be donated to the Australian Red Cross Lifeblood [43], where it undergoes strict testing, processing and pasteurisation before being distributed to neonatal wards for the youngest and sickest babies (i.e. born earlier than 32 weeks gestation) with insufficient breastmilk available. We are not aware of any other research that has examined views and experiences of either donating or receiving donor milk among Aboriginal and Torres Strait Islander women and families. This is a fruitful area for further research, to understand whether there are specific barriers to milk donation among Aboriginal families, and to inform the development of culturally responsive resources about the availability, accessibility and safety of donor milk.

Strengths and limitations

The use of Indigenous research methodology in the form of semi-structured interviews taking a Yarning approach, 'Yarning with purpose' [29], by Aboriginal researchers was a substantial strength of the study. The format enabled mothers to discuss a variety of difficulties that they faced regarding feeding their child(ren) in the days and months immediately following birth, regardless of their overall success with breastfeeding; women were very open and responsive to discussing the positive and negative aspects of their experiences with the researchers. This research builds on the strengths of Aboriginal culturally respectful ways of working with and supporting women, providing information that would not otherwise be collected with alternative research methods. The storytelling and women sharing within this cohort was a privilege, and a result of the trust between researchers and mothers. Further, the small sample size allowed the researchers to collect and analyse rich and detailed qualitative data on breastfeeding and other infant feeding experiences.

Limitation of this study are that the participants were all living in metropolitan Adelaide, therefore, the results may not reflect the experiences of Aboriginal women living in rural or remote areas of South Australia. Additionally, all participants were recruited through Aboriginal-specific antenatal care programs, and their experiences of care and breastfeeding supports may differ substantially from mothers to Aboriginal babies receiving antenatal care through mainstream services. Both of the included services provide post-birth follow-up including, where appropriate, home visits. It should also be noted that the participants of this study were drawn mostly from a larger cohort of women who had received additional support through pregnancy regarding maternal and infant food intake, and breastfeeding practical supports (breast pumps, breast pads) as part of the ABFABB study.

Conclusions

The findings of this research demonstrate the critical importance of effective, timely, and non-judgemental postnatal care in supporting mothers of Aboriginal infants to initiate and maintain breastfeeding where desired. While all participants described the benefits of family and social supports on their breastfeeding journeys, positive interactions with healthcare providers and appropriate infant feeding support were credited by participants with increasing breastfeeding success. Efforts to support breastfeeding for Aboriginal women and mothers to Aboriginal children in the early days of initiating breastfeeding need to be strengthened in order to optimise success with and duration of breastfeeding.

Abbreviations

ABFABB	Aboriginal Family and Baby Bundles
ACRA	Aboriginal Communities and Families Health Research Alliance
AMIC	Aboriginal Maternal and Infant Care Worker
LC	Lactation consultant

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Author contributions

KH contributed to the conceptualisation, methodology, investigation, formal analysis, and drafting the manuscript. AB contributed to formal analysis and manuscript drafting and editing. CC contributed to investigation, formal analysis, and drafting the manuscript. KLP contributed to formal analysis and manuscript drafting and editing. PM contributed to conceptualisation, funding acquisition, supervision and project administration, and manuscript review and editing. CL contributed to conceptualisation, cultural safety and oversight, and manuscript review and editing. JD contributed to conceptualisation, cultural safety and oversight, and manuscript review and editing. ACC contributed to conceptualisation, cultural safety and oversight, and manuscript review and editing. AR contributed to project management, supervision of writing team and formal analysis, and to manuscript review and editing. KG contributed to conceptualisation, methodology, investigation, formal analysis, and manuscript review and editing.

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Data availability

The datasets generated during the current study are not publicly available due to participant confidentiality. Data may be available from the corresponding author on reasonable request.

Declarations

Ethical approval and consent to participate

This study was approved by the South Australian Aboriginal Health Research Ethics committee (AHREC protocol #04-20-897). Written consent was

obtained from all participants, who were given a clear explanation of the study purpose and informed that interview answers would be transcribed and stored securely to maintain confidentiality. Contact details were collected for dissemination of study findings and participants were provided a gift card for their time. Participants were free to withdraw consent from the study at any time, and free to refuse to answer any questions/retract an answer. Confidentiality and anonymity were assured throughout the study.

Consent for publication
Not applicable.

Competing interests
The authors declare no competing interests.

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