





# Listening to Aboriginal mothers: perspectives on infant nutrition and active play promotion

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## Abstract

To provide culturally safe maternal and infant nutrition health promotion strategies, it is important that the views, experiences, and preferences of Aboriginal families are privileged. This study aimed to explore the views, experiences, and preferences of Aboriginal mothers' regarding access to information and support on infant nutrition and active play in Victoria, Australia. Parents and caregivers of Aboriginal infants and children under the age of 5 years were invited to participate via Aboriginal Community Controlled Health Organisations in urban and regional Victoria. Indigenous research methods of Yarning and Dadirri were applied, and reflexive thematic analysis from an Aboriginal standpoint was used to analyse the yarn transcripts. In total, 16 participants took part, including ten mothers in individual yarns and four mothers and two grandmothers in a group-based yarn. Five themes were identified, (i) information ahead of time, (ii) 'how to' interactive guidance, (iii) flexible access to professional support, (iv) informal sources of support, and (v) visual, concise, culturally responsive and accessible information. This study's findings underscore the need for timely, multi-faceted, and culturally responsive infant nutrition and active play health promotion resources for Aboriginal families in Victoria as expressed by Aboriginal mothers and grandmothers. Digital resources offer promising opportunities when developed in partnership with Aboriginal communities and used alongside personalized support from Aboriginal Community Controlled Health Organisations, trusted health professionals, and family members.

**Keywords** indigenous, aboriginal, infant feeding, information and support, active play, breastfeeding

### Contribution to Health Promotion

- This study identifies Aboriginal mothers' preferences for culturally responsive nutrition and active play information to support their infants' health and development.
- Findings highlight the importance of providing information ahead of time, practical guidance, flexible access to health professionals, informal support networks, and developing visual and accessible health promotion resources.
- Maternal and infant health information should be provided in multiple formats to ensure equitable access for families with limited internet or digital access.
- By centring the lived experiences of Aboriginal women, this study contributes novel insights that can inform the development of culturally responsive infant nutrition and active play information.

## Introduction

Optimal nutrition and movement behaviours during infancy and early childhood are essential determinants of growth, development, and long-term health. The first 1000 days of life are vitally important and present a window of opportunity to optimize nutrition, neurocognitive development, immune function, and the prevention of chronic disease (Saavedra and Dattilo 2022). This study adopts the first 1000 days framework, encompassing pregnancy, infancy, and early childhood, as a critical life-course period where nutrition and movement behaviours are established. Infant nutrition guidelines recommend exclusive breastfeeding for the first six months, followed by introducing complementary foods alongside continued breastfeeding to meet the growing infant's increasing nutritional needs (World Health Organization, 2022). For infants under 12 months, movement guidelines recommend at least 30 min of tummy time spread throughout the day, while children aged 1–2 years are recommended to have three hours of physical activity over a 24-h period. Across the 0–2 years age range, guidelines also advise limiting time spent restrained (e.g. prams/strollers, high chairs etc), to less than 1 h and no screen time (WHO 2022). This recommendation can be operationalized through safe, enjoyable play-based activities coupled with non-screen activities such as reading, singing, storytelling and age-appropriate puzzles (World Health Organization 2019). Within the first 1000 days, optimizing breastfeeding, introduction of complementary foods and movement behaviours influences long-term health trajectories by reducing the risk of cardiovascular disease, obesity and improving social and emotional wellbeing (Katzmarzyk *et al.* 2020). Supporting parents and caregivers with timely and accessible information during this period is therefore a key opportunity for health promotion.

Aboriginal and Torres Strait Islander people are the First Peoples of Australia and have maintained a deep connection to land and Culture for thousands of years. Subsequently, we will respectfully use the word 'Aboriginal' when referring to the First Peoples of mainland Australia, including the state of Victoria where this project was undertaken. Likewise, the term 'Indigenous' will be used when referring to Indigenous peoples internationally.

Prior to colonization the health and wellbeing of Aboriginal people was sustained through deep connections to family, culture and the land which fostered a nourishing environment and active lives (Bailey and Clark 2024). The impacts of colonization flowed through all Aboriginal communities with traditional foods replaced by government rations, leading to poor nutrition, including for mothers and infants (Whettam *et al.* 2022). Colonization disrupted Aboriginal peoples' relationship with the environment and cultural ways of being, creating imbalance and influencing health outcomes, including increased vulnerability to infections chronic diseases, mental illness and substance use (Dudgeon *et al.* 2014).

Aboriginal infants continue to experience the intergenerational impacts of colonization today including child removals, intergenerational trauma, and reduced access to culturally safe care (Chamberlain *et al.* 2021). According to the 2019 National Aboriginal and Torres Strait Islander Health Survey, 87% of Aboriginal children aged 0–2 years were ever breastfed, compared to 93% of non-Aboriginal infants (Australian Bureau of Statistics 2019), with the state of Victoria having a lower rate

(64%) of Aboriginal infants ever breastfed than other jurisdictions (Australian Institute of Health and Welfare 2024). Beyond breastfeeding rates, very limited data are available on nutrition, movement, and sedentary behaviours among Aboriginal infants.

Improving nutrition and physical activity among Aboriginal and Torres Strait Islander children is a priority within numerous national and jurisdiction policies and strategies (Australian Government 2021, Victorian Aboriginal Community Controlled Health Organisation 2021, 2025). The National Aboriginal and Torres Strait Islander Early Childhood Strategy emphasizes that access to culturally safe programs, which recognize and support diverse family structures, are essential for meeting children's developmental needs (Australian Government 2021). Further, the peak representative body for Aboriginal health in the state of Victoria, the Victorian Aboriginal Community Controlled Health Organisation (VACCHO), has prioritized a focus on children in Victoria thriving in the early years through holistic and culturally based models of care (Victorian Aboriginal Community Controlled Health Organisation 2021). To achieve this commitment, VACCHO coordinates the Koori Maternity Services and the Aboriginal Maternal Child Health Service that provide culturally safe health care for Aboriginal families during pregnancy and early childhood (Victorian Aboriginal Community Controlled Health Organisation 2025).

Optimizing infant nutrition and active play requires evidence-based, culturally responsive information and support that empowers parents. In addition to the Aboriginal-specific programs coordinated by VACCHO (Victorian Aboriginal Community Controlled Health Organisation 2025), a range of infant health information and support is available through Government-funded public hospitals (Mercy Hospital 2025, The Royal Women's Hospital 2025) and maternal and child health centres (Department of Health 2025), along with an increasing number of websites, and mobile applications; however, the degree to which these digital resources are accessed by Aboriginal parents is unknown. Previous research with Victorian Aboriginal families (Myers *et al.* 2014) highlighted the need for coordinated, culturally safe breastfeeding and child nutrition support as Aboriginal mothers were reluctant to attend government maternal and child health services. With this previous research being more than 10 years old, listening to Aboriginal mothers' current experiences is essential to determine whether existing services meet their needs and to identify how infant nutrition and active play health promotion resources can be improved. Therefore, this study aimed to explore Aboriginal mothers' perspectives regarding accessing information and support for infant nutrition and active play in the first 1000 days of life. Specifically, this study sought to answer the following question: What are Aboriginal mothers' views, experiences, and preferences regarding accessing information and support about infant nutrition and active play.

## Methods

This study used culturally safe Indigenous methodologies of Yarning and Dadirri (Bessarab and Ng'andu 2010, Ungunmerr 2017) to consult with Aboriginal parents and carers about infant nutrition and active play. To ensure a transparent and equitable approach, the CONSolidated critERia (CONSIDER statement) for

strengthening reporting of research involving Indigenous people, including Aboriginal people, was followed ([Huria et al. 2019](#)) ([supplementary file S1](#)).

## Governance

This research was undertaken in partnership with VACCHO, the peak body for Aboriginal health in Victoria [removed for peer-review] University and VACCHO partnered on a research grant, which provided funding for Aboriginal researcher (F.M.) to undertake this research as part of their PhD. A partnership agreement was signed reflecting organizational roles and responsibilities and joint ownership of intellectual property developed during the project. The research team and VACCHO met regularly to discuss progress, plan next steps, and ensure cultural protocols were maintained throughout the research process.

## Positionality

The research team comprised Aboriginal (FM Mununjali, SMF Yorta Yorta, SA-B Yorta Yorta and ST) and non-Aboriginal (RL, PL, JB) women with lived experience as mothers, aunts and grandmother, along with early childhood nutrition expertise and experience working with Aboriginal communities in Victoria. The research was led by FM, a Mununjali woman with long standing experience working with Aboriginal communities throughout eastern Australia, including in Victoria. FM's Aboriginal standpoint and methodological approach is grounded in relational ontology, privileging respectful, reciprocal relationships and a holistic understanding of Aboriginal health ([Martin 2017](#), [Foley 2018](#)). The challenge of being an Aboriginal researcher and having to navigate the academic world while maintaining individual cultural worldviews, highlighted in previous research ([Smith 2021](#), [Olmos-Vega et al. 2023](#)), was ever present in this study. FM was cognisant of her position as an outsider in the Victorian Aboriginal communities where she conducted this research. These tensions were managed through a respectful and humble approach with participants, along with regular debriefing with Aboriginal colleagues.

## Methodological approach

This study utilized Yarning and Dadirri which are recognized and accepted communication styles for Aboriginal people ([Bessarab and Ng'Andu 2010](#), [Ungunmerr 2017](#)). [Bessarab and Ng'Andu \(2010\)](#) outline four types of yarning that can be applied in research processes: social yarning, research topic yarning, collaborative yarning, and therapeutic yarning ([Bessarab and Ng'Andu 2010](#)). Prior to the commencement of data collection, social yarning was used to build rapport and gain trust with the participants. During data collection, research topic yarning involved a semi-structured approach, allowing relaxed, collaborative conversations that ensured participant's voices were heard ([Bessarab and Ng'Andu 2010](#)). Key questions guided the yarns, allowing participants to raise issues and share experiences important to them. Dadirri, is respectful, silent listening while maintaining calm awareness ([Ungunmerr 2017](#)). In this study, Dadirri allowed for both the participants and the Aboriginal

researcher (FM) a moment to reflect on non-verbal communication and to consider how to respond. Indigenous research methodologies enabled inclusive engagement and a culturally safe, Aboriginal-led process, which upheld cultural protocols of respect and reciprocity, allowing participant voices to be heard ([Fono et al. 2025](#)).

## Participant recruitment

Parents and caregivers, including grandparents, kinship carers, and foster carers, of Aboriginal infants and children under 5 years were eligible to participate in the study. These eligibility criteria ensured recency of experience, of pregnancy and the first 1000 days of life. At the same time, the criteria were broad enough to facilitate recruitment of an adequate sample within the study timeframe. Recruitment combined purposive and snowball sampling ([Hennink et al. 2020](#)), assisted by VACCHO's early years' workforce network. A recruitment flyer was provided via email to the VACCHO early years' workforce who then distributed this to their member ACCHOs. FM also conducted preliminary site visits to the ACCHOs to introduce herself and provide information about the research. Early years, staff within ACCHOs then informed parents and carers about the opportunity to participate in the study. Representatives from the ACCHOs contacted FM to arrange a time to meet and discuss the project. FM attended the ACCHO to meet with potential participants and conduct yarns while at the ACCHO. Additional participants were identified through the networks of the research team and through participants referring others who they believed could share relevant insights. FM did not have existing relationships with any of the participants.

## Data collection

Data were collected through group-based or individual yarns. Yarning questions explored participants' views, experiences, and preferences regarding infant nutrition and active play information and support. Although some participants' children were older at the time of the yarn, questions were guided towards reflections on pregnancy, the early postnatal period and infancy, consistent with the first 1000 days framework. The yarning guide was developed by FM in consultation with the research team based on the study aim and research question. No formal piloting was undertaken; however, questions were iteratively modified through reflexive de-briefing with the research team throughout the data collection period.

Consistent with yarning methodology the topic guide was used flexibly to support participant-led yarning rather than as a fixed interview schedule. Broad topic areas included experiences of nutrition information and support during pregnancy; early infant feeding practices (including breastfeeding and formula feeding); the introduction of solid foods; and experiences of support related to movement and active play. Participants were also asked about what further resources or programs they felt were needed to support infant feeding and active play during the first 1000 days. Examples of questions asked during the yarning included:

- Thinking back to when you were pregnant, what information and support did you receive on feeding bub?

- What information and support did you receive on playing with bub?
- What information and support would you have liked to have received?

Yarns were conducted in person at the ACCHO Aboriginal playgroup, and two were conducted online. To thank participants for their time and knowledge, participants received a \$50 gift voucher. Yarns were audio recorded with participants' consent and transcribed by FM. Consistent with Indigenous Data Sovereignty, yarn transcripts were returned to participants, enabling them to review, add to or amend their responses, or withdraw their data if they wished.

## Data analysis

Transcripts were uploaded into Nvivo version 14 and analysed using reflexive thematic analysis. Analysis was iterative and non-linear, requiring the research team to interrogate and revisit the data while critically questioning their positionality throughout the analysis process (Braun and Clarke 2022). The first step in the analysis process involved re-listening to recordings and reading through the transcripts, considering similarities and differences along with connections. FM then coded all transcripts and SA-B independently coded 3 of the 11 transcripts to identify initial surface-level (latent codes) and underlying meaning (semantic codes) relevant to the research aim. FM and SA-B met to discuss their initial coding, drawing on their own standpoint as Aboriginal women, with SA-B's lived experience as an Aboriginal mother and grandmother in Victoria providing contextual insight to support interpretation and, reached consensus on a final set of codes, which FM subsequently applied to the whole dataset. Candidate themes were constructed by assembling codes into thematic categories. FM derived preliminary themes, which were refined and discussed with remaining research team members (RL, PL, JB, SMF, and SA-B) to reach agreement on thematic categories and theme names. Preliminary themes and findings were shared with VACCHO and early years staff from the Aboriginal Community Controlled Health sector to sense-check interpretations and ensure findings reflected community perspectives.

## Results

### Participant demographics

The final sample included only mothers and grandmothers however, all parents and caregivers were eligible to participate. Participants consisted of 14 mothers and 2 grandmothers. Eight participants had only one child and eight participants had more than one child (ranging from 2 to 6 children), with the youngest being under the age of 5 years. Of the sixteen participants, all but one identified as Aboriginal and/or Torres Strait Islander. The one non-Aboriginal participant had an Aboriginal child. Ten mothers participated in individual yarns and four mothers and two grandmothers took part in the group-based yarn. Individual yarns lasted between 45 and 60 min, while the group-based yarn lasted 90 minutes. Both regional and urban

**Table 1** Demographics of caregivers.

Parent/Carer characteristics	No.
Age range	
18–25	5
26–40	9
41–60	2
Location	
Inner Regional	8
Outer Regional	7
Urban	1
Gender	
Female	16
Aboriginal and or Torres Strait Islander	
Aboriginal	14
Torres Strait Islander	0
Aboriginal and Torres Strait Islander	1
Neither Aboriginal or Torres Strait Islander	1
Relationship to infant/child	
Mother	14
Grandmother	2
First Child	
Yes	8
No	8

Victoria was represented with eight participants from inner regional areas, seven from outer regional areas and one from an urban area (Table 1).

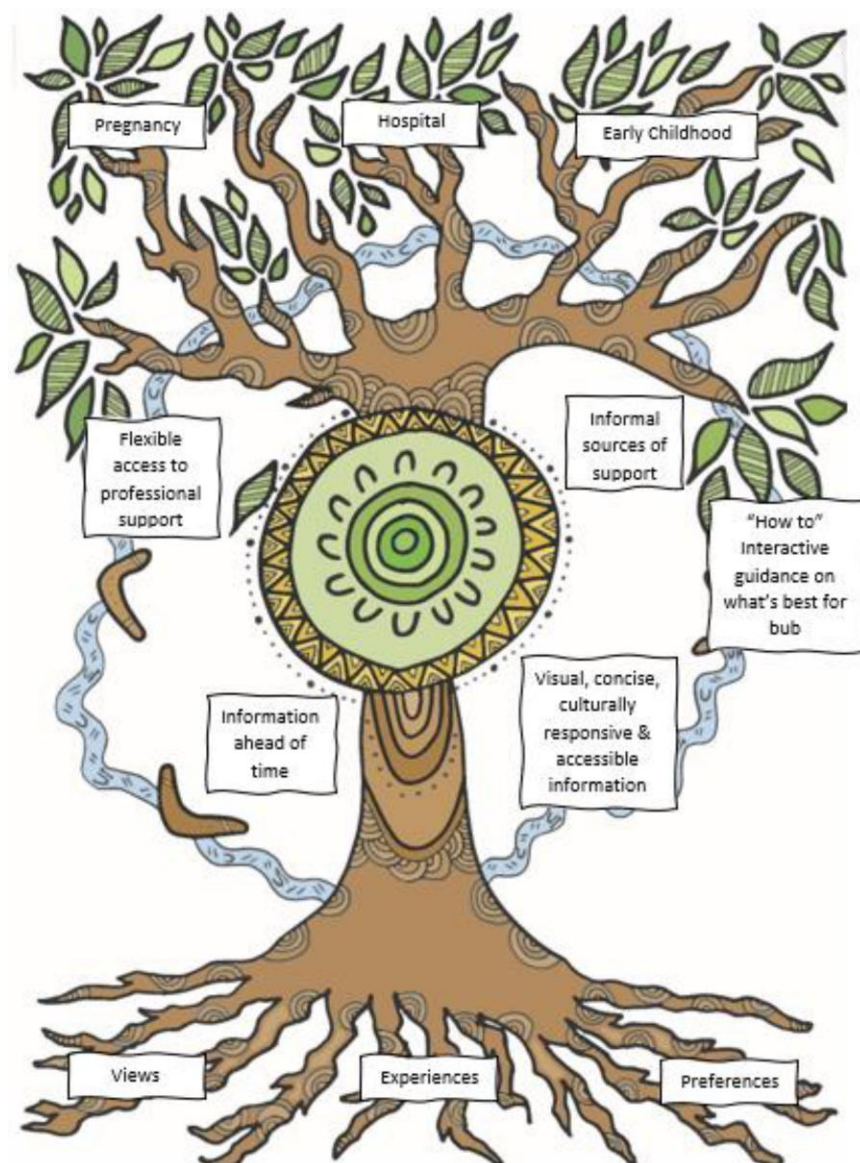
## Overview of themes

Five themes were constructed from the data. Figure 1 uses a tree as a metaphor to illustrate how these themes are grounded in Aboriginal mothers' views, experiences, and preferences. Extending across the three branches is the maternal and infant health care system: pregnancy, birth/hospital care, and the post-natal early childhood period up to age two. These themes are described in the sections below.

### Theme 1: information ahead of time

The importance of providing infant nutrition and active play information prior to birth was identified by participants. Some participants felt that if information had been provided while they were pregnant, they would not feel so overwhelmed when their baby arrived. As one participant articulated, a lot of information could be provided in the 'early days when people are still pregnant. You don't need to be sitting in hospital twelve hours after labour, given twenty million pieces of paper and learning 100 new things every second' (Participant 16).

According to participants, key information to provide before birth included breastfeeding, while remaining respectful to mothers who are unable or chose not to breastfeed, and information about introducing solid food so that they are prepared at the time of 6 months when introducing solid foods is recommended. Participants reported that information on introducing solid food, including the type of food to introduce and the nutritional value



**Figure 1** Summary of themes derived from yarns. Figure credit: Artwork by Shakara Montalto (Gunditjmara).

of different foods was not readily available. Some participants expressed that they would have liked to have had more information about introducing solid food ahead of time so that they could be prepared. As one participant outlined:

'I do think that introducing solids is a very anxious time for us. Well, especially for me and first-time mums, who are kind of thinking about the worst and what's going to happen and how do I present this food in a way that's appropriate for a young baby?' (Participant 10).

## Theme 2: 'how to' interactive guidance

Once baby arrived, participants expressed a need for practical and hands-on support from health professionals. Personalized guidance was viewed as empowering, helping mothers feel confident in continuing breastfeeding and implementing 'tummy time'. As one participant shared, 'someone in person who can show you and [...] give you that assurance that, yeah, you're

doing it right' (Participant 6). Having access to interactive, tailored support, particularly for troubleshooting, was considered important:

Like, you know, you're doing what you can. If this doesn't work, you can try this. It can be a bit more, like, targeted to you' (Participant 3).

Several participants highlighted the benefits of targeted, practical support tailored to their unique individual circumstances. While participants recognized breastfeeding as the recommended feeding method, those who were unable or chose not to breastfeed, reported a lack of practical guidance from health professionals on safely preparing infant formula. As one participant explained, the focus on promoting breastfeeding resulted in her leaving hospital feeling ashamed and unprepared to feed her child:

'They're so against formula, they don't tell you which ones better for your child, they don't tell you about formula, you

have to guess it when you leave the hospital. I had no idea what to give my kid, how to do it, they don't do any of that. They expect you to breastfeed and that's all they tell you, really, in the hospital' (Participant 11).

Even though tummy time was highly encouraged by health professionals, both in hospital and at postnatal check-ups, some participants were unsure of how to implement it effectively, while others found maternal and child health nurse visits helpful for demonstrating tummy time.

'I think it's really hammered into you how important tummy time is and that's kind of all they say. They don't give you advice on how to do it' (Participant 4).

'Maternal and child health [nurse]...she would actually get me to do tummy time while I'm there and to show me different...like having toys around him so he can have a look and move himself' (Participant 5).

### Theme 3: flexible access to professional support

Participants entered motherhood with differing levels of prior knowledge and experiences. Some had access to family and kin support, while others accessed health services for formal antenatal education. These differences influenced the types of support mothers drew on after birth. The value of having flexible access to support from health professionals during both the antenatal and perinatal period was highlighted by many participants. While in hospital, some participants described the assistance from midwives as particularly beneficial, especially in the early stages of infant feeding. The availability of skilled midwives with breastfeeding knowledge gave the participants confidence and eased anxieties about holding and breastfeeding their baby for the first time as outlined by one participant:

'My midwife was great. [...] She gave me a lot of confidence on latching and even just moving baby around without being so scared and delicate. So, yeah, she was great. She referred me to my child health nurse'. (Participant 1).

However, some participants reported receiving very little support while in hospital around breastfeeding and infant nutrition with one participant sharing they felt, 'ignored in the hospital'. The participant went on to explain:

'I told them that it was too painful[...] I'd try the whole time and they still say, it's the best for the baby, you'll get used to it, [...] I went home depressed wondering what I did wrong' (Participant 7).

This account highlights how dismissive responses to pain and distress during early feeding can negatively affect maternal wellbeing.

In contrast to some participants' negative experiences in hospital, access to continued support from a maternal and child health nurse at home after hospital was highly valued. Participants accessed this support in a range of formats, including group parenting programs, home visits and scheduled consultations with a maternal child health nurse. The flexibility of

having access to health professionals at group programs allowed participants to seek information and guidance whenever questions arose, without needing to wait for an appointment. Questions participants raised were predominantly about breastfeeding and introducing solids and difficulties associated with infant feeding. As one participant explained:

'One really good thing I can vouch for is the maternal child health nurse there, she runs a sort of parent group [...] and the nurse actually comes to all the groups and we have some one-on-one time with her every week without an appointment. So when we do have questions that come up, she can answer them for us there'. (Participant 12).

Attending community programs or events that provided information and support on infant nutrition and active play was viewed as an excellent opportunity, not only to access health information but also to connect with other mothers in the community who may be experiencing similar challenges. As one participant shared, '...having things where people can come together is beneficial because they can talk about their experiences' (Participant 8). Involving partners in these community programs, particularly around breastfeeding was also considered valuable for fostering understanding and support:

'...with the session we attended about breastfeeding that happened to be about expressing colostrum, my partner attends to that with me and having him even just there to understand why it's important, I think can help quite a lot' (Participant 9).

### Theme 4: informal sources of support

Mothers described seeking infant feeding support through various informal sources. This included from family members, such as their own mothers, grandmothers, and sisters as well as online platforms and social media. These informal sources of support are explored through two sub-themes; support from family and friends and support via digital platforms.

#### Support from family and friends

Many women valued the generational breastfeeding knowledge and experience that families and friends can hold with family viewed as an important source of support. As one participant shared, 'I was fortunate enough that my partner's family [were] all women, so then they help educate, they teach me everything' (Participant 17). For mothers without this kind of wrap-around family support, participants noted that formal information and professional guidance became particularly important. In some cases, participants also reported being a source of support for friends who did not have access to support from their own family. Even though family was considered to be a vital source of support, some participants suggested the advice they received from their parents or grandparents may be outdated:

'My sister semi-recently had a baby and I've got family, but that about did it and a lot of the advice that my mum and my aunties and my grandma even had is, obviously, very outdated at this point' (Participant 2)

## Support via digital platforms

Digital platforms such as websites and social media provided participants with immediate access to information about infant feeding and active play. Some mothers reported frequently searching for information online or through social media, especially around introducing solids. One participant explained: 'I started looking up stuff on the internet and there was about, you know, just veggies that, like, mashed well together'. (Participant 10).

Social media groups, particularly on Facebook, were also described as a source of support, especially for mothers without family or friends nearby. These digital platforms provided a sense of community and connection, even without face-to-face interaction. One participant explained:

'I know it's only a Facebook group, but it's just a group of other mums and they all talk about how they introduced things and new food ideas and whatever for each of their babies, which is just kind of like a really good community option' (Participant 11).

## Theme 5: visual, concise, culturally responsive and accessible information

While many participants reported searching the Internet for information about infant nutrition, participants expressed a strong preference for information that is visual, concise, culturally responsive and accessible. Participants highlighted that such information could be delivered in various formats to suit different circumstances and preferences. Mobile phone applications (apps) and printed resources were frequently discussed and have been included as subthemes below.

### Mobile applications

Several participants noted that apps offered convenient access to infant health information, including about introducing solid foods and what specific foods are recommended. This was particularly when professional support was not available, either due to a lack of appointments or when questions arose outside of regular clinic hours. As one participant stated: 'If you've got an app on the phone [...], it's more of that ease of access' (Participant 11). However, concerns were raised about digital access, with some families not having reliable internet connections, mobile data or the newer smartphones required to run some apps. One participant reflected, 'you know, not everyone can afford internet, you can't afford a good phone to have apps' (Participant 12). To address this, participant 12 suggested public-access tablets in clinics as an alternative option for families without internet access.

'Even these iPads for maternity services, if you just want to know something but you don't need to see someone you could check on this iPad and see if the information's on there. Nobody's going to know what you're looking up, it's got internet on so you don't have to worry' (Participant 12).

Importantly, participants highlighted the need for a bespoke, culturally responsive app, designed specifically for Aboriginal and Torres Strait Islander mothers and tailored to an infant's age

and stage of development, rather than a generic maternal and infant health app as outlined by one participant:

'I feel like if it was more based around Indigenous people, if there was an app specifically made for that, that would definitely help' (Participant 13).

Further, participants described one aspect of cultural responsiveness as the inclusion of respected Aboriginal women from the community in digital resources to deliver information for families, as one participant outlined:

'...having a YouTube channel where you've seen [...] somebody like my nan on there [...] show you something real simple' (Participant 2).

Grandmothers also suggested practical and accessible ways to communicate nutrition information as one grandmother stated:

'Do those things they do for the preschoolers. They have the calendar on one side and the information on one and you keep flipping it over every month. That's something for nutrition...'. (Participant 6).

### Printed information resources

Printed resources were also viewed as a valuable option for receiving infant nutrition and active play information. Priority was placed on information that was visually engaging, concise and easy to access and understand. As one participant suggested, 'even just a fridge magnet with nutrition stuff on it' (Participant 14). Information with minimal text and more pictures was preferred by some participants, such as 'pictures associated with words' (Participant 15). Printed information on the introduction of solids was considered particularly helpful, with participants expressing a preference for simple information to support healthy meal preparation. One participant explained:

'I feel if I was to read something on a piece of paper that says, these are the food groups that the bubs can eat from, I would be like, yep, sweet, I can put something together with that' (Participant 16).

## Discussion

This study is one of few to explore the views, experiences and preferences of Aboriginal mothers regarding information and support on infant feeding and active play. Our findings highlight participants' preferences for holistic support across the perinatal period, the timely provision of information before it is needed, flexible access to professional support, including tailored interactive guidance, valuing informal sources of support and advice, and the provision of visual, concise and culturally responsive information.

### Mothers' experiences of accessing support

The positive experiences with midwives and maternal and child health nurses reported by many of our participants may be due to the majority of participants accessing health professionals via ACCHOs, who provide culturally safe maternal and infant health care, including the Aboriginal Maternal and Child Health

initiative, which commenced in 2017 (Mackean *et al.* 2025). This aligns with other studies where culturally safe continuity of maternal and infant health care has contributed to better health outcomes for Aboriginal infants, including breastfeeding rates (Mitchell *et al.* 2023). However, ACCHOs and Aboriginal specific maternal and infant health care are not available in all areas of Victoria (Mitchell *et al.* 2025). Therefore, to provide culturally responsive care, further investment in both ACCHOs and the Aboriginal early years workforce is required.

Consistent with previous research (Astuti *et al.* 2021), mothers in our study reported that routine infant feeding education in general, did not translate into practical, interactive breastfeeding support. While in hospital, it can be difficult for mothers to receive this support due to the busy hospital environment; however, evidence consistently suggests that holistic, culturally responsive continuity of midwifery care improves breastfeeding rates and health outcomes for Aboriginal mothers and infants (Kildea *et al.* 2019, Seear *et al.* 2021, McLachlan *et al.* 2023). Participants in our study emphasized a need for infant feeding support to include, where necessary, safe preparation of infant formula for mothers who are unable or choose not to breastfeed. Our finding that formula feeding guidance was often lacking aligns with previous research showing that parents often rely on infant formula tins, friends, family and digital platforms due to limited advice from health professionals (Appleton *et al.* 2020). While breastmilk is the gold standard for infant nutrition, formula feeding is the only recommended alternative to breastmilk (National Health and Medical Research Council 2012). While the International Code for Marketing of Breastmilk substitutes (World Health Organization 2025) requires health professionals to provide clear information on the superiority of breastfeeding and how to prepare for and maintain breastfeeding, it also requires health professionals 'to provide clear information, where needed, on the proper use of infant formula (article 4.2 of International Code for Marketing of Breastmilk substitutes)'. It is the 'where needed' wording of the code which is open to interpretation by health professionals. Other studies (Fenwick *et al.* 2013, Lagan *et al.* 2014) have also reported a perception by women that some health professionals are 'not allowed' to provide information on formula feeding. Further research is needed on how health professionals interpret the code and navigate discussions of formula feeding 'when needed' as such guidance is essential to support appropriate infant feeding practices and maternal wellbeing.

## Mothers' views on effective support

Aboriginal mothers in our study expressed the view that receiving information ahead of time, particularly about breastfeeding, helped build confidence in their infant feeding decisions. This finding reinforces previous evidence on the value of anticipatory guidance and pre-natal breastfeeding support (Jackson *et al.* 2021, Ekström-Bergström *et al.* 2022). Mothers emphasized the value of hands-on, practical guidance, support from family, access to digital resources and flexible access to health professionals, such as drop-in clinics and parenting groups. Providing timely, flexible, practical, and culturally responsive infant feeding information and support, delivered by trusted health professionals, was seen as crucial to giving infants the best start to life. These perspectives align with findings from previous studies with

Aboriginal mothers that found culturally-specific care, provided through ACCHOs including timely access to health professionals, including Aboriginal lactation consultants, supported longer breastfeeding duration (Hawke *et al.* 2025, Mondal *et al.* 2025).

International research with Indigenous communities has demonstrated that culturally responsive, community-led, family centred programs focussed on infant nutrition and active play, have improved child nutrition and development outcomes, including breastfeeding initiation and duration (McCalman *et al.* 2017). Similarly, a flexible, family-inclusive approach to delivering infant nutrition and active play information was a key finding of our study, reinforcing previous research highlighting that infant health-care, including breastfeeding support, should include mothers and fathers, enabling both parents to build knowledge and support their infant's health and wellbeing holistically (Evans *et al.* 2021).

## Mothers' preferences for how they receive infant feeding and active play information and support

Aboriginal mothers in our study expressed a preference for receiving infant feeding and active play information through a combination of mobile apps, printed resources, health professionals, family support, and digital platforms. Mothers consistently emphasized that information should be concise, accessible, culturally responsive, and visually engaging. There is a growing body of literature supporting the utility of mobile apps in supporting maternal and infant health for Aboriginal women and Indigenous women internationally (Kennedy *et al.* 2021, Wright *et al.* 2021). Alongside the standard clinical support provided by health professionals, digital platforms, such as websites and social media, were frequently used to access health information by Aboriginal participants in our study, as well as in previous research (Adams *et al.* 2017). This finding reinforces the importance of ensuring digital resources combine culturally responsive design features and evidence-based information to counteract online misinformation (Hopkins *et al.* 2021, Perkes *et al.* 2023). However, participants also emphasized that digital access cannot be assumed, highlighting the need for information to be available in complementary non-digital formats to ensure Aboriginal families without reliable internet or mobile phone data have equitable access to maternal and infant nutrition and active play information.

Our findings also highlight the value placed on informal support from family, friends, and digital communities. These findings build on previous research showing that social media-based peer support groups, including around breastfeeding, can provide a sense of connection and community among mothers (Bridges 2016). However, some participants also revealed that advice from informal sources could, at times, be outdated or conflict with current recommendations. It is well documented that Aboriginal communities frequently experience racism in the health system (Truong *et al.* 2022). As a result, Aboriginal mothers often seek health information online, from family members or from social media, particularly when mainstream health services are inaccessible or not culturally safe (Perkes *et al.* 2023). Our findings underscore the importance of culturally responsive professional support and health

promotion resources to complement informal networks and support families to navigate complex and often conflicting child health information.

## Strengths and limitations

A strength of this study was that it was led by an Aboriginal woman in partnership with a peak Aboriginal health organization ensuring that all aspects of the project were culturally responsive. Another strength was the use of recognized and accepted Indigenous research methods Yarning and Dadirri. The study honoured the voices of Aboriginal mothers and grandmothers in Victoria ensuring that their views, experiences and preferences about infant feeding and active play were privileged. There are, however, limitations that should be considered when interpreting our findings and planning future research. First, although participants were eligible to participate in this study if they had a child under 5 years of age, the age of all children in their care was not collected. It is acknowledged that some mothers may have had more recent experiences of the first 1000 days compared to others. Nevertheless, participants, did not appear to have any issues with recalling experiences, suggesting the first 1000 days of life remain highly salient for caregivers. Secondly, while Aboriginal mothers in this study reported using digital platforms for infant nutrition information, they were not asked which specific websites they accessed so the quality of the online health information sourced is unclear. Thirdly, while participants were invited to discuss both nutrition and active play across the first 1000 days, discussions centred on early infant feeding and tummy time, reflecting the participant-led nature of the yarns and the salience of feeding issues for mothers during the early postnatal period. As a result, active play beyond tummy time was explored less extensively, limiting insights into broader active play support needs, including guidance on screentime recommendations. While this may reflect a limitation of the Yarning guide, it may be because yarning naturally elicits issues of greatest importance to participants, emphasizing the need to balance responsiveness to participant priorities with intentional, respectful prompting to explore less immediately salient topics. Finally, we acknowledge that these results are the views, experiences and preferences of 16 women, recruited through ACCHOs, predominantly in regional Victoria and, therefore do not reflect the views, experiences or preferences of all Aboriginal and Torres Strait Islander mothers in Victoria or throughout Australia. While only two grandmothers participated, our findings highlight the important role grandmothers play in providing informal support around infant feeding. Further research centring grandparents' perspectives is needed to better understand their role in promoting healthy infant feeding and active play. Further research is also required to explore the infant health promotion preferences for Aboriginal fathers and for families living in areas without access to an ACCHO. Despite its limitations, this study provides important implications for early years health promotion for Aboriginal communities.

## Conclusion

Overall, our findings suggest that health promotion strategies should apply a multi-faceted approach to meet the infant feeding

and active play needs of Victorian Aboriginal families. Infant feeding and active play information should be provided in advance of when it is needed, in concise, accessible and culturally responsive formats, whether via printed materials or digital platforms. Health promotion resources should not replace personalized, practical support from trusted health professionals, ideally through ACCHOs and at community-led parenting programs. Informal infant feeding support from family members, including female relatives and fathers, should be recognized and supported. As digital access grows, mobile apps and digital resources offer a promising opportunity to promote infant nutrition and active play in a timely, culturally grounded evidence-based resources for Aboriginal families across diverse settings. Aboriginal mothers clearly articulated a preference for Aboriginal-specific resources, signalling an important direction for future health promotion through Aboriginal-led digital health tools that reflect Aboriginal communication styles and family contexts. Development of these resources should be led by Victorian Aboriginal communities. The findings of this study have been presented to VACCHO, and community visits are planned in the near future to communicate findings to participants. This study will inform the development of infant health promotion resources for Aboriginal families in Victoria. Grant funding has been allocated to progress these findings and enable resource development.

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## Author contributions

F.M.: Conceptualization, Methodology, Investigation, Formal analysis, Writing—original draft, review and editing. R.L.: Conceptualization, Methodology, Supervision, Formal analysis, review and editing. P.L.: Conceptualization, Methodology, Supervision, Formal analysis, review and editing. S.A.-B.: Formal analysis, Writing—review and editing. S.M.F.: Supervision, Formal analysis, review and editing. S.T.: Conceptualization, Writing—review and editing. J.B.: Conceptualization, Methodology, Supervision, Formal analysis, review and editing.

## Supplementary material

Supplementary material is available at [Health Promotion International](https://academic.oup.com/heapro/article/41/1/daag009/8469344) online.

## Conflicts of interest

The authors have no conflicts of interest to declare.

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## Data availability

We do not have ethics approval to share our data.

## Ethical approval

This study was approved by the Deakin University Human Research Ethics Committee (2023-167).

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