EtD 57. Should whānau-led tikanga around food be integrated into supporting whānau Māori in the nutritional care of pēpi Māori?

POPULATION:	Preterm infants
INTERVENTION:	Integrating whānau-led tikanga around food to support whānau Māori in the nutritional care of pēpi Māori
COMPARISON:	Standard care
MAIN OUTCOMES:	**Critical outcomes** Upholding whānau-led tikanga Māori Breastmilk supply/volume Fully breastfed or breastmilk feeding at hospital discharge and/or at 6 months post-partum Necrotising enterocolitis Mortality Neurodevelopmental impairment Sepsis: proven or suspected Time to full enteral feeds **Important but not critical** Adverse effects Faltering growth/body composition Duration of initial hospital stay Bronchopulmonary dysplasia Retinopathy of prematurity Anaemia of prematurity Cost: cost of intervention, cost of neonatal care and life-long cost **Less important for decision making** Time to full sucking feeds
SETTING:	Neonatal care
PERSPECTIVE:	Clinical guideline recommendation. Patient perspective
BACKGROUND:	The concept of kai as rongoa and critical to the healing of the patient is a concept widely shared in indigenous traditions. There is currently no national-level policy on provision of meals for the primary caregiver of a hospitalised pēpi. Whānau Māori often report feeling hungry during their stay in NICU due to the lack of food provision and few affordable options nearby. In te ao Māori, kai (food) is a source of connection, and the gifting of kai is a mark of manaakitanga (respect, hospitality) and is important to create an environment that is noa (free from tapu). Whānau Māori with a preterm pēpi often describe NICU as an inhospitable environment where they feel stressed, isolated and alone. The wellbeing of the pēpi is dependent on the wellbeing of the whānau and integrating whānau-led tikanga around food may improve whānau wellbeing and ultimately benefit everyone.
CONFLICT OF INTERESTS:	The following qualitative study (reference 3) co-authors are on the Guideline Development Group: Lisa Kremer, Liza Edmonds

Desirable Effects

How substantial are the desirable anticipated effects?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Trivial ○ Small ● Moderate ○ Large ○ Varies ○ Don't know	No evidence was found that addresses the benefits of integrating whānau-led tikanga around food into the care of Māori preterm pēpi. However, in a study by Smith *et al* [1] the findings of the Kai Atua project were presented. Kai Atua is a three-year Kaupapa Māori research project revolving around Māori understandings of food and traditional Māori food practices. The study reported that: Kai (food) is connected to te taiao (the environment) and tūpuna (ancestors) Māori food system is based on respect for the environment and connection between people and nature Kai binds communities and environments across generations Kai is rongoā (medicine), a source of wellbeing and connection Integrating tikanga practices around food in the care of preterm pēpi may therefore mean ensuring that the whole whānau is provided for, and that healthcare providers are involved in tikanga around food, as the sharing of kai and company, mātauranga (knowledge), pūrākau (storytelling) and manaakitanga (showing respect, generosity and care) are all connected. Examples of family Integrated Care (FICare) models for whānau Māori are still rare but a tamariki and whānau-based need assessment tool, the Harti Hauora Tamariki Tool (The Harti tool) was developed at the Waikato Hospital and designed to reduce health inequities [2]. The Harti tool is a co-design tool grounded in Māori worldview: It emphasises the existence and validity of Mātauranga Māori (Māori knowledge) It promotes mana motuhake (self-determination) and whānau-centred care, with the understanding that the whānau is "a source of strength, support, security, and identity" The tool is based on tikanga practices such as whakamana (empowerment), whakawhanaungatanga (process of establishing relationships), manaakitanga (showing respect, generosity and care). A qualitative study by Masters-Awatere [3] including whānau Māori of a child aged 0-5 who had experienced the Harti tool during the child's hospital stay reported that the tool fostered culturally appropriate and respectful interactions, facilitated by the use of te reo Māori and by cultural matching between the healthcare provider and whānau Māori. The role of kai and the possible ways to integrate tikanga around food in the hospital environment were however not discussed.	In a study by Rogers *et al*, 10 whānau Māori with a pēpi at risk of neonatal hypoglycaemia were interviewed [4]. Themes that emerged were: Whānau found it easier to accept medical interventions such as heel prick tests if this was preceded by a tikanga led process (e.g. karakia) Whānau want to take an active part in the care of their pēpi, and health decision are often taken collectively by the whānau Deep connection of the whānau and the pēpi to whakapapa - this was highlighted by tikanga practices such as using karakia before hypoglycaemia testing/treatment to connect to tipuna (ancestors).

Undesirable Effects

How substantial are the undesirable anticipated effects?		
JUDGEMENT	**RESEARCH EVIDENCE**	**ADDITIONAL CONSIDERATIONS**
○ Trivial ● Small ○ Moderate ○ Large ○ Varies ○ Don't know	In a master's thesis work by Brown [5], eight whānau Māori caring for a pēpi in NICU were interviewed. Participants reported that: Kai is central to the wellbeing of whānau Māori in NICU. Receiving kai fulfils a basic need and is therefore paramount in the care of whānau Māori caring for their pēpi Kai connects people and creates a noa (free from tapu) environment However, participants' experience of meals provided by the hospital did not allow for these positive feelings and connections to occur. Participants described the food as limited, 'gross' and 'uneatable' and not kai that whānau Māori would eat in their everyday life Participants who breastfed their pēpi relied on nutritious and appetising kai as well as a dedicated space to eat to ensure milk supply, neither of which was provided by the hospital On the other hand, participants recalled feeling respected and cared for when staff offered extra meals to caretakers other than the mother, such as during Father's Day. Experiences of hunger is often reported in the literature around NICU. In Adcock's study of 19 whānau of preterm pēpi Māori, several participants reported going without food as this was not provided or it was overly difficult to access during their stay in NICU [6]. This led to participants describing NICU as an inhospitable space. When it comes to kai, the support of non-parent whānau members was therefore essential as they delivered food to parents of preterm pēpi and advocated for parents to receive entitlements in the hospital, such as meal vouchers. This was particularly important as the majority of parents in the study lived far from NICU and therefore had to stay in hospital accommodations or in hotels. However, some units prevented non-parents whānau to visit outside of visiting hours, which limited their ability to provide practical support called for a meal to be provided to whānau caring for a child in hospital [7]. Provision of food and/or kitchen facilities currently varies in different hospitals with many whānau having to bring or buy their own meals. Fifteen whānau Māori participants of hospitalised tamariki aged 0-4 were interviewed. Themes that emerged were: Participants often had to rush to the hospital and did not have time/did not think to bring food. Having to pay for food, alongside other expenses (such as reduced work hours, parking/transport) was a financial burden, especially for low-income whānau Māori. Some participants reported having no money to pay for food	

	On-site hospital cafés were often too expensive, meaning participants had to find more affordable options outside of the hospital, thus having to leave their child's side which many described as unacceptable, especially if no one else was there to care for the tamariki Parents, especially mothers, of tamariki were often away from their extended whānau (especially for participants who lived rurally and who had no local support near the hospital) which left them feeling isolated and without emotional and material support such as food being brought to them. Whānau extended network was therefore not always available or able to provide food to the caregiver (either due to cost or/and transport and/or time constraint such as being at work or taking care of the sibling of the hospitalised tamariki) Participants therefore experienced hunger during their hospital stays ("I was starving") but some felt whakamā (embarrassed) and were reluctant to ask for help. Some were also wary of mentioning their situation to healthcare providers, for fear of "getting in trouble" with government agencies Hunger increased anxiety and worry in participants, in a situation that was already stressful.	

Certainty of evidence

What is the overall certainty of the evidence of effects?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Very low ○ Low ● Moderate ○ High ○ No included studies	No statistical analysis was provided in the included studies. The evidence is therefore narrative and qualitative in nature, but the majority of included studies used a kaupapa Māori approach. While only two studies provided direct information relevant to the PICO (Brown 2023, Masters-Awatere 2020), the evidence provided is rich in themes and valuable insights from whanau Māori with a pēpi in NICU. The remaining studies included indirect evidence that gave some additional insights into tikanga practices around kai. The judgement of moderate certainty was based on the first critical outcome: “upholding whānau-led tikanga Māori. The Critical Appraisal Skills Programme (CASP) checklist* for qualitative studies was used to assess the strength of the including qualitative studies. Overall, the evidence was of high quality. Results of the CASP checklist were as follow: · Masters-Awatere et al., 2019: 20/20 (high quality) [3] · Rogers et al., 2025: 20/20 (high quality) [4] · Brown, 2023: 20/20 (high quality)	* CASP criteria: 1. Was there a clear statement of the aims of the research? 2. Is a qualitative methodology appropriate? 3. Was the research design appropriate to address the aims of the research? 4. Was the recruitment strategy appropriate to the aims of the research? 5. Was the data collected in a way that addressed the research issue? 6. Has the relationship between researcher and participants been adequately considered? 7. Have ethical issues been taken into consideration? 8. Was the data analysis sufficiently rigorous? 9. Is there a clear statement of findings? 10. How valuable is the research? CASP critical score: a) Criterion is completely met = 2; b) criterion is partially met = 1; c) criterion not applicable, not

	· Adcock et al., 2021: 20/20 (high quality) [6] · Masters-Awatere et al., 2020: 16/20 (moderate quality) [7] (criterion data collection and criterion data analysis partially met, criterion ethical issues not completed)	met, or not mentioned = 0; Total score 20 = high quality; 16–19 moderate quality; ≤ 15 low quality

Values

Is there important uncertainty about or variability in how much people value the main outcomes?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Important uncertainty or variability ● Possibly important uncertainty or variability ○ Probably no important uncertainty or variability ○ No important uncertainty or variability	It is important to not treat Māori as a homogenous group who have the same values; however, most Māori will value upholding tikanga in healthcare.	

Balance of effects

Does the balance between desirable and undesirable effects favour the intervention or the comparison?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Favours the comparison ○ Probably favours the comparison ○ Does not favour either the intervention or the comparison ● Probably favours the intervention ○ Favours the intervention ○ Varies ○ Don't know	The studies are primarily qualitative data summarising experiences and not the effect of an intervention.	

Resources required

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS

● Large costs ○ Moderate costs ○ Negligible costs and savings ○ Moderate savings ○ Large savings ○ Varies ○ Don't know	Masters-Awatere et al [7] provided a quick cost analysis in their call for universal meal provision of caregivers of a hospitalised child. The analysis was conducted in 2020 and is therefore not up to date. At the time, they calculated that: The cost of patient meals as provided by in-house catering services was NZ$1.83 per patient meal Across Aotearoa New Zealand, 143,710 children under the age of 5 were discharged from a public hospital for the year ended 30 June 2017 The national mean length of stay was 2.5 days Based on these figures, they calculated that the delivering a lunch and a dinner meal to one caregiver of all admitted children (aged 0-4) in a public hospital would cost around $1 million per annum ($1,051,957.20) on what was, at the time, an annual health expenditure of $6 billion. This analysis only accounted for meal provision for one caregiver. Studies show the importance of the extended whānau in the care of the preterm pēpi. Available literature also emphasises the community aspect of kai - a truly culturally appropriate approach would therefore need to encompass more than one caregiver. It may for example mean ensuring kitchen and communal places dedicated to cooking and eating are available in every NICU wards. It would also mean reconsidering and adapting the existing visiting policies to enable the presence of the extended whānau.	

Certainty of evidence of required resources

What is the certainty of the evidence of resource requirements (costs)?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Very low ○ Low ● Moderate ○ High ○ No included studies	The analysis conducted by Masters-Awatere [7] is out of date as the study was published in 2020. No recent cost-analysis could be found.	In December 2025, the cost of parent meals as provided by hospital contracted catering services is NZ$12.00 per lunch meal and NZ$13.50 per dinner meal.

Cost effectiveness

Does the cost-effectiveness of the intervention favour the intervention or the comparison?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Favours the comparison ○ Probably favours the comparison ○ Does not favour either the	In the Masters-Awatere [7] study, the meal delivery service was described as more cost-effective than providing meal vouchers to be used at the hospital café.	

intervention or the comparison ○ Probably favours the intervention ○ Favours the intervention ○ Varies ● No included studies		

Equity

What would be the impact on health equity?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Reduced ○ Probably reduced ○ Probably no impact ● Probably increased ○ Increased ○ Varies ○ Don't know	Studies show that whānau Māori often experience hunger while caring for their pēpi in the hospital. Pēpi may need to stay in NICU for several weeks or months, which means whānau Māori face many long-term costs, especially if the pēpi is cared for in a hospital away from home (in the available literature, many study participants lived more than 90 minutes away from the hospital). These costs include loss of work income, cost of transport/parking, accommodations, food. For those of lower income status, those costs are often prohibitive: several participants recall going without food during their stay. When kai is provided by the hospital, it is often described in the literature as very different to what whānau Māori would usually eat, highlighting that meals are designed for a non-Māori population.	

Acceptability

Is the intervention acceptable to key stakeholders?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ No ○ Probably no ● Probably yes ○ Yes ○ Varies ○ Don't know	In the 2019 Review of neonatal care in New Zealand pēpi Māori had the highest overall rate of admission to SCBU/NICU [8]. Adapting the NICU environment to provide culturally appropriate care to whānau Māori is paramount to fulfil the Crown's obligations under the Te Tiriti o Waitangi. In the Masters-Awatere [7] study, providing meals through the hospital was described as: More nutritious and healthier than making whānau buy food outside Communicating a sense of care to the parent(s) Enabling the caregiver to stay in the room with their tamariki.	

Feasibility

Is the intervention feasible to implement?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ No ○ Probably no ○ Probably yes ○ Yes ● Varies ○ Don't know	Masters-Awatere [7] identified several barriers to providing meals to caregiver of hospitalised tamariki. This included: Financial cost Staff and kitchen capacity Need to comply with hygiene requirements Lack of space in hospitals. To address those barriers, they called for increased resources and support allocated to this issue as well as reshaping processes. They note that nurses currently need to fill in paperwork to provide meal to eligible primary caregivers, which is a time-consuming task and can be off-putting to both staff and whānau. Universal meal provision would address this issue. However, Masters-Awatere called for provision of meal to one caregiver, which does not necessarily reflect the need of whānau Māori as described in the available literature. When food is provided, it is sometimes not appropriate, with kai that is described as unappealing, as well as very different to what whānau Māori would usually eat. The extended family is involved in the care of the pēpi and a culturally safe approach would need to consider more than one caregiver. As highlighted by Brown *et al* [5], such an approach may need to include whānau Māori in the co-design of NICU, to allow for shared spaces in which whānau Māori can cook, share a meal, connect and socialise.	

Summary of judgements

	JUDGEMENT						
DESIRABLE EFFECTS	Trivial	Small	**Moderate**	Large		Varies	Don't know
UNDESIRABLE EFFECTS	Trivial	**Small**	Moderate	Large		Varies	Don't know
CERTAINTY OF EVIDENCE	Very low	Low	**Moderate**	High			No included studies
VALUES	Important uncertainty or variability	**Possibly important uncertainty or variability**	Probably no important uncertainty or variability	No important uncertainty or variability			

	JUDGEMENT						
BALANCE OF EFFECTS	Favours the comparison	Probably favours the comparison	Does not favour either the intervention or the comparison	**Probably favours the intervention**	Favours the intervention	Varies	Don't know
RESOURCES REQUIRED	**Large costs**	Moderate costs	Negligible costs and savings	Moderate savings	Large savings	Varies	Don't know
CERTAINTY OF EVIDENCE OF REQUIRED RESOURCES	Very low	Low	**Moderate**	High			No included studies
COST EFFECTIVENESS	Favours the comparison	Probably favours the comparison	Does not favour either the intervention or the comparison	Probably favours the intervention	Favours the intervention	Varies	**No included studies**
EQUITY	Reduced	Probably reduced	Probably no impact	**Probably increased**	Increased	Varies	Don't know
ACCEPTABILITY	No	Probably no	**Probably yes**	Yes		Varies	Don't know
FEASIBILITY	No	Probably no	Probably yes	Yes		**Varies**	Don't know

Type of recommendation

Strong recommendation against the intervention	Conditional recommendation against the intervention	Conditional recommendation for either the intervention or the comparison	**Conditional recommendation for the intervention**	Strong recommendation for the intervention
○	○	○	●	○

References

1. Smith, J.; Hutchings, J. Feeding Indigenous Aotearoa better. *Journal of the Royal Society of New Zealand* **2025**.
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