

Applying an Indigenous strengths-based theoretical framework for nutrition-related health and wellbeing for Aboriginal and Torres Strait Islander Peoples of Australia impacted by chronic kidney disease

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ABSTRACT

Background. Aboriginal and Torres Strait Islander Peoples' perspectives on health and wellbeing remain largely absent and underrepresented in contemporary public health nutrition and wellness literature. The dominant Western health knowledge system is positioned as normative, effectively rendering Aboriginal and Torres Strait Islander Peoples' health knowledge systems invisible, particularly in chronic kidney disease (CKD) care. **Objective.** To demonstrate through a case study how an Indigenous strengths-based theoretical framework can equip nutrition practitioners with tools for recognising, naming and reframing deficit discourse, while identifying and amplifying the diverse strengths of Aboriginal and Torres Strait Islander Peoples of Australia impacted by CKD, offering an alternative to deficit-based approaches in primary health nutrition practice and research. **Discussion.** We present a narrative background on Aboriginal and Torres Strait Islander Peoples' conceptions of health, nutrition and wellbeing in the context of CKD, highlighting how deficit-based approaches negatively impact outcomes, and proposing a strengths-based approach as a more effective and culturally appropriate way forward. We then provide a case study integrating Prehn's strengths-based theoretical framework according to micro, meso and macro levels to facilitate recognition of Aboriginal and Torres Strait Islander Peoples' multitude of strengths. Our case study is a worked example of this framework provided in the context of promoting nutrition health and wellbeing for Aboriginal and Torres Strait Islander Peoples impacted by CKD residing in Yarrabah, Australia. **Conclusion.** Our case study shows how Prehn's framework can guide culturally safe, strengths-based CKD nutrition care, supporting health sovereignty and self-determination for Aboriginal and Torres Strait Islander Peoples across all levels of practice.

Keywords: Aboriginal and Torres Strait Islander Peoples, chronic kidney disease, deficit discourse, First Nations, First Peoples, health and wellbeing, Indigenous, nutrition, primary health, strength-based approach.

Background

Aboriginal and Torres Strait Islander Peoples conceptualise health through a holistic, multidimensional framework that encompasses physical, social, emotional and cultural elements within community wellbeing (Chittleborough *et al.* 2023). However, the Western biomedical paradigm dominates public health and nutrition and dietetic practices. All levels of care across Australian health practice and research tend to focus on deficits, 'difference, disparity, disadvantage, dysfunction and deprivation' (Walter and Suina 2019) of Aboriginal and Torres Strait Islander Peoples rather than highlighting their strengths (Fforde *et al.* 2013; Chittleborough *et al.* 2023), perpetuating racist ideologies of Western superiority and justifying ongoing structures of colonisation (Fogarty *et al.* 2018). Although disadvantage experienced by Aboriginal and Torres Strait Islander Peoples needs to be acknowledged, this dominant discourse inhibits other lenses on Aboriginal and Torres Strait Islander Peoples' health and wellbeing (Fogarty *et al.* 2018). This is particularly

evident within chronic condition prevention and management, such as chronic kidney disease (CKD).

CKD represents an important public health priority for Australia, with relevance to Aboriginal and Torres Strait Islander communities. Although prevention efforts identify the critical role of lifestyle factors, such as nutrition, physical activity and smoking cessation, in preventing CKD (Kelly *et al.* 2021), these approaches often fail to consider the complex historical, cultural, and social determinants that shape health outcomes for Aboriginal and Torres Strait Islander Peoples (Fogarty *et al.* 2018). This narrow biomedical perspective tends to emphasise individual behaviours, which are disconnected from their broader context, reinforcing a one-dimensional narrative that overlooks the diverse strengths of Aboriginal and Torres Strait Islander Peoples, and their experiences with CKD prevention and management.

This deficit-focused lens often results in the generalisation of unhealthful nutrition-related health behaviours from one Aboriginal and Torres Strait Islander group (or community) to the collective Aboriginal and Torres Strait Islander population (Fogarty *et al.* 2018). This risks overlooking that Aboriginal and Torres Strait Islander Peoples of Australia possess collective strengths, including sophisticated knowledge systems derived from being part of the world's oldest living culture and a deep commitment to caring for Country (Bell 1998).

The aim of this study is to demonstrate through a case study how an Indigenous strengths-based theoretical framework can equip nutrition practitioners with tools for recognising, naming and reframing deficit discourse, while identifying and amplifying the diverse strengths of Aboriginal and Torres Strait Islander Peoples of Australia impacted by CKD, offering an alternative to deficit-based approaches in primary health nutrition practice and research. By deviating from the

dominant deficit discourse, our case study should equip primary health providers, including dietitians, with tools for recognising, naming and reframing deficit discourse, thereby fostering feelings of empowerment, appreciation and value among Aboriginal and Torres Strait Islander Peoples.

Aboriginal and Torres Strait Islander Peoples' conception of health, nutrition and CKD wellbeing

The wellbeing of Aboriginal and Torres Strait Islander Peoples is an interwoven construct where individual health is inseparable from family and kinship, community, spirituality and ancestors, and cultural and Country wellness (Dudgeon *et al.* 2021). This holistic conceptualisation with multiple dimensions of wellbeing also includes cultural connection, land attachment, and community belonging and governance (Dudgeon *et al.* 2021). Table 1 overviews the social positioning of the two authors.

The prevalence of CKD among Aboriginal and Torres Strait Islander Peoples highlights the complex intersection between Aboriginal and Torres Strait Islander Peoples' traditional health concepts and contemporary Western healthcare challenges. Current research using deficit-based approaches have failed to address the multifactorial issues surrounding health outcomes, and do not address or strengthen key elements of Aboriginal and Torres Strait Islander Peoples' concepts of health and wellbeing (Chittleborough *et al.* 2023). Particularly in relation to CKD, risking perpetuating problematic narratives, and overlooking the broader social and cultural determinants of health.

Myrna Cunningham emphasises, 'Indigenous Peoples' right to food is inseparable from their rights to land, territories, resources, culture and self-determination' (Kuhnlein *et al.* 2013). This urges the development of culturally sensitive health care that

Table 1. Social positioning of the authors.

Tracy Hardy	As a Gamilaroi (Aboriginal) woman, born from and raised on Kooma Country (St George, Qld), who works as a dietitian and Indigenous Trauma Recovery Practitioner, I aim to actively participate in and contribute to local Aboriginal and Torres Strait Islander Peoples communities across Australia. While possessing a comprehensive understanding of the past and ongoing impacts of colonisation on connections to sovereign Aboriginal and Torres Strait Islander lands, food, food practices and intimate relationships with Country due to clearing of traditional lands, introduction of foreign species, forced introduction of ration-based diets, preceded by a forced removal and relocation of Aboriginal and Torres Strait Islander Peoples from land, massacres and clearing of traditional lands for large-scale Westernised agricultural production, I acknowledge and respect that many Aboriginal and Torres Strait Islander Peoples today hold extensive knowledge about traditional food practices and include this as part of their lives, individually and collectively, signifying a desire to continue to apply knowledges that are of benefit to individuals and communities in sourcing foods that supplement Western-based diets, and demonstrating enduring strength and resilience. Therefore, my social positioning and incorporation of a Aboriginal and Torres Strait Islander Peoples worldview significantly influence and propel the contents of this paper.
Jaimon Kelly	I am a non-Indigenous white man born and raised on Palawa Country (Northwest Coast, Tas), who works as a kidney dietitian and digital health academic across Australia. As a healthcare professional, I acknowledge the need for a deeper understanding of the local Aboriginal and Torres Strait Islander culture to ensure culturally appropriate, effective and safe resources. Aboriginal and Torres Strait Islander community members with CKD, at risk of CKD or working with their family or patients with/at risk of CKD have unique and valuable insights and are important to partner with to codesign solutions. Aboriginal health workers want to be involved and contribute to research designed to benefit the community they are part of. I aim to actively contribute to the knowledge base and practice, by listening and collaborating closely with Aboriginal and Torres Strait Islander Peoples and Communities. I am strongly supported by my colleague, Tracy Hardy, in my learning, advocacy, on my path to reconciliation; my social positioning provides a case study for taking a strength-based approach to nutrition and wellbeing in Aboriginal and Torres Strait Islander Peoples and communities impacted by CKD, but it does not significantly influence and propel the contents of this paper. My role here is to help with my academic and nutrition expertise, but most importantly, to learn and de-colonise my own knowledge and practices.

recognises the interconnected nature of physical health, traditional foodways and cultural wellbeing in the management of chronic conditions, such as CKD. Guidance and direction is required from Aboriginal and Torres Strait Islander Peoples with lived experience in CKD and health care to find effective solutions that address both the management of CKD and the broader cultural and social determinants of health. Supporting traditional knowledge systems and cultural practices is a human rights imperative, and offers opportunities for developing more comprehensive, integrated and effective approaches to health management for all Australians.

The relationship between traditional foodways and health outcomes is particularly significant in the context of CKD management. Research has demonstrated that traditional foodways promote wellbeing among Aboriginal and Torres Strait Islander adults through multiple interconnected pathways, including social connection, traditional food access, cultural knowledge transmission, and the shared joy of food preparation and consumption (Anderson *et al.* 2024). Procuring and consuming traditional foods (bush tucker) represents a fundamental pathway to holistic health, with evidence suggesting Aboriginal and Torres Strait Islander Peoples view these practices as essential for both maintaining cultural identity and achieving nutritional wellbeing (Christidis *et al.* 2021). The transition from traditional to contemporary foodways has resulted in reduced opportunities for physical activity and cultural knowledge transmission, factors that significantly impact health outcomes (Anderson *et al.* 2024).

Aboriginal and Torres Strait Islander Peoples with more advanced stages of CKD are often challenged by the frequent requirement for ongoing maintenance haemodialysis, when this requires permanently relocating from their home communities to urban centres, to receive regular care (Cubillo *et al.* 2020). This displacement creates significant disruption to traditional food access, cultural connections and family support networks, fundamental to Aboriginal and Torres Strait Islander Peoples' conception of health and wellbeing. These journeys to urban centres for remote CKD patients are 'lonely', 'distressing' and 'isolating' experiences, highlighting the profound psychological and cultural implications of displacement from Country and community (Cubillo *et al.* 2020).

Ethics approval

Not applicable.

Deficit-based approaches negatively impact health and wellbeing in CKD

Health research predominantly measures Aboriginal and Torres Strait Islander Peoples' health outcomes against non-Indigenous standards, inherently suggesting a failure to

meet externally imposed benchmarks (Fogarty *et al.* 2018). This has resulted in a pattern of reporting that Aboriginal and Torres Strait Islander Peoples' diets 'do not meet guidelines' or are 'poor', without adequately addressing the underlying causes or proposing effective programs, appropriate measures and comparators (Lee and Ride 2018).

There is also growing evidence that deficit-based assumptions influence clinical decision-making in kidney care. Aboriginal and Torres Strait Islander Peoples with kidney failure may not be wait-listed for a kidney transplant due to a range of systemic barriers, including limited service availability, lower likelihood of referral for transplant evaluation and cultural biases (Kelly *et al.* 2020; Hughes *et al.* 2023a). In some cases, nephrologists have reported relying on perceived patient compliance or past experiences with other Aboriginal and Torres Strait Islander patients when making referral decisions, rather than objective clinical indicators (Anderson *et al.* 2012). Other research has highlighted that barriers to accessing quality kidney care include limited service availability in regional and remote areas, cultural misunderstanding by health staff, racism, language barriers, and fear of dying away from Country (Chaturvedi *et al.* 2024). This contrast illustrates how assumptions are often shaped by miscommunication and a lack of culturally appropriate education, which can lead to generalisations, deficit-based comparisons and reduced access to care (Anderson *et al.* 2012; Kelly *et al.* 2020).

This comparison-based approach overlooks the validity of Aboriginal and Torres Strait Islander Peoples' health concepts and practices while simultaneously reinforcing colonial power structures within healthcare research and delivery (Foley and Schubert 2013). Although this is important for highlighting inequalities, without proper historical and structural context, this risks embedding racist stereotypes (Fogarty *et al.* 2018), reinforcing institutionalised racism, which is a key structural determinant of their health and wellbeing (Mohamed Shaburidin *et al.* 2022).

Dietitians work in an environment where healthcare professionals are socialised into a discourse of deficit, potentially limiting their ability to recognise and build upon the strengths of Aboriginal and Torres Strait Islander communities (Bessey *et al.* 2021). To address these shortcomings, there is a growing recognition of the need to shift from deficit-based to strength-based approaches that acknowledge and build upon Aboriginal and Torres Strait Islander Peoples' cultural knowledges, heritages, practices and solutions (Fogarty *et al.* 2018; Chittleborough *et al.* 2023). This transformation requires not only changes in research methodology, but also a total shift in how healthcare professionals are educated and trained to enable critical thinking about existing discourses and their implications for practice.

Guidance is required from Aboriginal and Torres Strait Islander Peoples with lived experience of CKD and health care to find effective solutions that address community needs and contexts for CKD, both for primary prevention efforts, the broader cultural and social determinants of health, and for

CKD management. Supporting traditional knowledge systems and cultural practices is a human rights imperative, and offers opportunities for developing more comprehensive, integrated and effective approaches to health management for all Australians.

Indigenous research methodologies, such as Yarning, Dadirri, Ganma and participatory action research, recognise community knowledge and lived experience as valid and central to research. These approaches underpin strengths-based frameworks that centre Indigenous peoples' cultural authority and knowledge systems. The National Indigenous Kidney Transplantation Taskforce (2019–2023) translated these frameworks into practice by embedding Aboriginal and Torres Strait Islander Peoples' self-determination into kidney care design (Hughes *et al.* 2023b). Australian research has shown that decolonising kidney health requires action across theory, systems and practice, and should involve authentic engagement with community, and be grounded in strength-based approaches (McGuffog *et al.* 2023; Owen *et al.* 2023).

Strengths-based approach: a better way forward to promote healthy nutrition and wellbeing for Aboriginal and Torres Strait Islander Peoples impacted by CKD

Challenging deficit discourses through strengths-based approaches facilitates more holistic and meaningful solutions to nutrition-related health inequities (Chittleborough *et al.* 2023). This paradigm shift necessitates fundamental changes in how existing research results are perceived, and future research is conceived, conducted and communicated, thereby promoting equity and self-determination in health outcomes for Aboriginal and Torres Strait Islander Peoples. Despite being underutilised in nutrition and dietetic practice, growing evidence supports the practical application of strengths-based approaches in research (Thurber *et al.* 2020). Building upon previously outlined descriptions and evaluations (Prehn 2024), our work in nutrition and CKD health and wellbeing draws on Prehn's theoretical framework (Prehn 2024). Prehn's framework was created within an Australian context, and acknowledges (while adapting) Saleebey's (2023) six core principles, including:

1. Celebrate diversity: Honour cultural wisdom, connections to Country, resilience and kinship within Indigenous communities;
2. Embrace growth: Acknowledge inherent strength and resilience, turning challenges into opportunities;
3. Empower aspirations: Support self-determination, and value Indigenous goals and visions;
4. Foster collaboration: Amplify Indigenous voices, recognise expertise, and create meaningful partnerships;
5. Utilise resources: Draw on cultural knowledge, traditional practices, networks and community strengths; and

6. Cultural grounding: Root approaches in Indigenous worldviews, knowledge systems and cultural protocols.

Micro, meso and macro contexts to promote a strength-based approach in Aboriginal and Torres Strait Islander Peoples' nutrition-related CKD health and wellbeing research

When examining Aboriginal and Torres Strait Islander Peoples' strengths and challenging the deficit narrative in CKD nutrition care, we must consider the different layers, or systems, that contribute to this Kelly *et al.* (2020). Prehn proposes using a micro, meso and macro framework to identify areas for change, particularly crucial given the communal (meso) nature of Indigenous societies, which contrasts with the dominant, non-Indigenous Australian, individualised (micro) focus (Prehn 2024). This is applicable to nutrition care in CKD, a valuable framework emerges by combining the micro, meso and macro levels with the Indigenous strengths-based approach's six key principles (see Table 2). The following sections provide examples of applying the Indigenous strengths-based approach at the micro, meso and macro levels regarding the nutritional health and wellbeing of Aboriginal and Torres Strait Islander Peoples in Australia with CKD.

Micro level

The micro level focuses on individual interactions and small groups within CKD nutrition care. Fook and Gardener suggest that at this level, nutrition professionals engaging with Aboriginal and Torres Strait Islander Peoples should undertake critical reflection on their own beliefs, attitudes and approaches to dietary management (Fook and Gardner 2007). Although diversity exists within the Australian dietetic workforce, it is still predominated by non-Indigenous women from privileged backgrounds. This demographic composition strengthens the imperative for critical reflection, as dietitians may lack lived experience of the structural and systemic barriers, and cultural contexts that shape Aboriginal and Torres Strait Islander Peoples' relationships with food, their clinician and health systems.

When deficit-based perceptions about dietary practices are present, it is crucial to explore their underlying causes, purposes and power dynamics (Saleebey 2023). Again, through critical reflection, dietitians should collaborate with Aboriginal and Torres Strait Islander Peoples using a strengths-based approach by acknowledging their strengths; for example, the resilience in maintaining healthful traditional food knowledge and dietary practices that support CKD management despite ongoing structural impacts of colonisation.

Meso level

The meso level addresses organisational contexts and Indigenous communities. Disproportionate CKD impacts, culturally inappropriate dietary resources and institutional

Table 2. Strengths-based approach exemplar table, informed by Prehn (2024), and using a nutrition case study in Yarrabah to promote CKD health and wellbeing.

Context	Micro level	Meso level	Macro level
(1) <i>Celebrate Diversity</i> : Honour the vibrant strengths within Indigenous people and communities – cultural wisdom, deep connections to Country, resilience, storytelling, kinship and art.	<p>Gamilaroi (Aboriginal) Dietitian and Senior Research Assistant leading the project brings incredible knowledge of nutrition and culture.</p> <p>The Aboriginal student Dietitian from Bond University working on the project team brings their personal and professional goals, including their cultural and professional wisdom to the project. Yarrabah community members are individually contributing their diverse wisdom and stories for the project – especially in our workshops to understand healthy nutrition.</p> <p>An Aboriginal Community engagement officer is involved with the project, with years of experience working in Yarrabah and is a passionate individual who commits himself to the betterment of young Aboriginal and Torres Strait People. They bring experience across a wide range of diverse backgrounds and places.</p>	<p>Gurriny Yealamucka Health Services Aboriginal Corporation are the participating ACCHO and local health service of Yarrabah. With strong executive and clinical buy in to the project, this keeps a very practical and community-focused lens to the research goals and intended impacts.</p> <p>Surrounding health services, including Ngak Ming Health, and the PCYC have supported the concepts of the project and are interested participating if the capacity is supported.</p> <p>The University of Queensland (UQ) Centre for Online Health have over 25 years history of working with First Nation communities and co-implementing successful telehealth and health-focused programs.</p> <p>Cooperative Research Centre for Developing Northern Australia (CRNCA) support industry led projects and initiatives across northern QLD, including a dedicated arm to First Nation-led Business Development and specific research projects. The CRCNA are extremely supportive of the project and meet regularly to provide Meso level oversight and guidance.</p>	<p>The CRCNA are currently overseeing many Aboriginal and Torres Strait Islander-led projects being conducted throughout Australia for the benefit of Aboriginal and Torres Strait Islander communities living in Northern Australia.</p> <p>Queensland guidelines that are applicable in this space and the policies that may need to be considered are important for the project to be aware of, implement and adhere to.</p>
(2) <i>Embrace Growth</i> : Acknowledge the inherent strength, resilience and growth potential in the face of adversity, turning challenges into opportunities for profound development.	<p>Aboriginal and Torres Strait Islander community members with CKD, at risk of CKD or working with their family or patients with/at risk of CKD have unique and valuable insights and are important to partner with to codesign solutions to help.</p> <p>These members are being engaged by Gurriny and the project's Community engagement officer; we also have learned from other research personnel and their learnings in Yarrabah projects. Their contribution to the project is incredibly diverse – including advisory, participation, engagement, knowledge and writing of papers/reports.</p>	<p>Gurriny Yealamucka Health Services Aboriginal Corporation brings real world solutions to the challenges they face in the community and their health service. Their innovative thinking is also culturally safe and relevant to the community they are part of.</p> <p>Gurriny, as our project partner, can feel pressured with many research projects and cultural responsibly. We acknowledge this and aim to work together with our other partners to create a seamless process to planning, applying for ethics, creating documents and policies – which have now been drafted can be used and continuously updated by Gurriny moving forward for any of their research projects.</p>	<p>Organisations relevant to the project include Kidney Health Australia, and the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS).</p>

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Table 2. (Continued).

Context	Micro level	Meso level	Macro level
(3) <i>Empower Aspirations</i> : Fuel personal and collective growth in the Indigenous context. Support self-determination, valuing the aspirations, goals, and visions of Indigenous individuals, families, and communities.	Aboriginal health workers want to be involved in research and contributing to research that is designed and for-benefit of the community they are part of. Aboriginal and Torres Strait Islander student researchers are eager to learn from community and contribute their wisdom to the project. Any community members as engaged by the project's Community engagement officer will be brought in to the project, and paid in line with consumer remuneration rates.	The new researcher roles at Gurriny present a valuable opportunity to support self-determination by providing pathways for Indigenous individuals to contribute their unique knowledge and expertise to research. This collaborative approach allows us to learn together, valuing the aspirations, goals, and visions of Aboriginal and Torres Strait Islander researchers, community members, and families. By creating a supportive environment where Aboriginal and Torres Strait Islander individuals can grow professionally and contribute meaningfully to the project, we not only enhance individual capacity, but also strengthen the collective potential of the community. These roles empower Aboriginal and Torres Strait Islander People to shape research that is relevant to their own needs and priorities, ensuring that their voices are heard and respected throughout the process.	Consistent reflection: How am I, how is the project, how are we as a team supporting organisations to achieve their values, mission, goals of the partner organisations? Gurriny are the project partner – they are always listed as the principal partner, and are given ample opportunity to steer the project were intended and in line with their vision and goals. We achieve this through monthly meetings (online) and <i>ad hoc</i> in-person meetings in Yarrabah and at local meetings (outside Yarrabah) – for example, at the Tropical Innovation Festival. CRCNA are the broader societal funder and supporter of the project and strategic plan. We meet with executive of the funder monthly and <i>ad hoc</i> as required. An Aboriginal student dietitian from Bond University involved in the project, so we have reviewed their reconciliation action plan (RAP). One of the key actions that is relevant for this project is 'Engage Bond University staff and students in cultural learning to increase their understanding, value and recognition of Aboriginal and Torres Strait Islander cultures, histories, knowledge and rights' and 'Develop opportunities to increase Aboriginal and Torres Strait Islander recruitment, retention, and professional development.' – We will ensure and provide examples of how the student's participation and learning is supportive of Bond's RAP. The University of Queensland's (UQ) is a key research partner and so we have reviewed their RAP – which includes a vision for reconciliation is a fair, equal and inclusive society in which Indigenous and non-Indigenous people unite to create a better future. 'Develop, enhance, and maintain mutually beneficial relationships between the UQ community and Aboriginal and Torres Strait Islander Peoples, communities, and organisations', 'Ensure that resources are developed and available that support the capabilities of staff to develop, enhance and maintain mutually beneficial relationships by enabling best practice in engagement and service delivery', 'Increase understanding, value and recognition of Aboriginal and Torres Strait Islander cultures, histories, knowledge, and rights through cultural learning', and 'Demonstrate respect to Aboriginal and Torres Strait Islander Peoples by observing cultural protocols'. It is important to note that all deliverables of each RAP are important and relevant. Those selected are those that this project can provide example and leadership in supporting.

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Table 2. (Continued).

Context	Micro level	Meso level	Macro level
(4) <i>Foster Self-determination and Collaboration</i> : Boost self-determination with resources and valued Indigenous voices. Collaboration is key – recognise expertise, knowledge, decision-making authority and empower through meaningful partnerships.	<p>We ensure that Aboriginal and Torres Strait Islander Peoples voices and expertise lead the way. Tracy, an Aboriginal senior research assistant and leader in Australian dietetics, guides the project with her extensive experience, shaping its direction while respecting cultural insights.</p> <p>An Aboriginal student dietitian from Bond University, is directly involved in the research, bringing a culturally informed perspective. We provide them with mentorship and opportunities for growth, helping to become a future leader in dietetics while integrating Indigenous knowledge into the field.</p> <p>An Aboriginal community engagement officer involved with the project, leads community engagement, ensuring the project aligns with community needs and priorities. Their leadership guarantees that decision-making reflects Indigenous knowledge and expertise, empowering the community.</p> <p>We value each individual's expertise immensely, and so create a collaborative environment where Aboriginal and Torres Strait Islander Peoples are at the forefront of the project. This approach strengthens self-determination and fosters meaningful partnerships through shared decision-making and mutual respect.</p>	<p>Our collaboration with organisations like Gurriny and Wattleseed Nutrition plays a critical role in ensuring the success of the project. These organisations are key contributors of cultural knowledge and awareness, helping non-Indigenous researchers, such as J. Kelly, and partners, such as Sophus, understand and respect the cultural frameworks that shape the work.</p> <p>Gurriny, with its deep roots in the community, offers invaluable insight into the needs and perspectives of Aboriginal and Torres Strait Islander Peoples, ensuring that the research is culturally relevant and sensitive. Wattleseed Nutrition brings expertise in Aboriginal and Torres Strait Islander food systems, providing vital information that bridges the gap between traditional practices and contemporary dietetics.</p> <p>These collaborations are essential for the success of the project, because it empowers non-Indigenous researchers to engage with and learn from Indigenous knowledge in meaningful ways. By integrating these cultural teachings, the project is better equipped to deliver outcomes that are respectful, informed, and impactful for Aboriginal and Torres Strait Islander Peoples communities. The partnership also strengthens the mutual respect between Aboriginal and Torres Strait Islander and non-Indigenous collaborators, reinforcing a shared commitment to meaningful and effective change.</p>	<p>The CRCNA are extremely supportive of the project, and meet regularly to provide macro level oversight and guidance, and governance of the funding.</p> <p>AIATSIS are a macro advisor to the project. They provide the ethics approval for the project (REC-0430) and augment the project approval provided by the University of Queensland Human Research Ethics Committee (HREC; 2024/HE002557). They have incredible knowledge, insights and first-hand experience with projects like this and have the decision-making authority regarding (specific to ethics) whether the project can go ahead. We need to adhere and respect their policies, and meet their reporting requirements.</p> <p>The HREC and AIATSIS specifically ensure the project has had the appropriate community engagement, and that Indigenous data governance principles are upheld in our primary care research.</p>

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Table 2. (Continued).

Context	Micro level	Meso level	Macro level
(5) <i>Utilise Resources</i> : Tap into the wealth of Indigenous resources – cultural knowledge, traditional practices, land, networks, support systems and cultural strengths – to address challenges collaboratively.	<p>Knowledge and cultural knowledge are vital resources which this project has the opportunity to utilise. This includes Tracy's wealth of knowledge, including cultural expert, nutrition expert, trauma expert and workshop facilitator. The Aboriginal student from Bond University dietitian brings experience of telehealth and CKD in the Bond Curriculum, and their previous Aboriginal and Torres Strait Islander placements. They have set goals for their internship and the project aims to empower and facilitate these as much as possible. The community engagement officer involved in the project has experience with youth, community engagement and mentoring. They are concurrently learning about research more but they themselves are a resource which amplifies the research and gives it the best change of problem-solving challenges and truly working collaboratively with Gurriny, and the Yarrabah community. Gurriny Yealamucka Health Services Aboriginal Corporation have strong important individual (in executive and clinical) buy in to the project.</p>	<p>As a local Aboriginal and Torres Strait Islander-led organisation, Gurriny brings a wealth of cultural knowledge, traditional practices, and strong community networks to the table, to address challenges collaboratively. By integrating Aboriginal and Torres Strait Islander health systems and culturally appropriate care practices, Gurriny ensures that health services are tailored to meet the unique needs of the Yarrabah community. For example, Gurriny's established relationships with local Elders, community leaders and healthcare professionals allow for a collaborative approach to addressing health disparities. Their expertise in connecting cultural practices with health care enables them to guide programs that respect and utilise traditional healing methods alongside modern medical care, fostering holistic wellbeing. Furthermore, Gurriny's role in training and mentoring Aboriginal and Torres Strait Islander Peoples health workers strengthens local capacity, ensuring that future health initiatives are informed by both Aboriginal and Torres Strait Islander Peoples knowledges and Western health practices. This collaborative model helps empower the community, drawing on its cultural strengths and support systems to tackle health challenges in a way that is both effective and culturally safe.</p>	<p>Policies and procedures at the national and state levels, such as those created by government bodies, are essential in guiding and embedding culturally appropriate practices within systems that support Aboriginal and Torres Strait Islander communities. AIATSIS: their work supports the ongoing strength of Indigenous knowledge systems, and their resources can be used to address challenges collaboratively in ways that are respectful and responsive to Indigenous needs. Kidney Health Australia: updating, appraising and disseminating evidence-based resources. These policies help ensure that Aboriginal and Torres Strait Islander cultural knowledges and traditional practices are respected and integrated into health and research practices. By utilising these resources, policies and networks at the macro level, we ensure that the project is built on a foundation of Aboriginal and Torres Strait Islander strengths, cultural knowledge and traditional practices, addressing challenges in a collaborative and respectful manner.</p>

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Table 2. (Continued).

Context	Micro level	Meso level	Macro level
(6) <i>Cultural Grounding</i> : Root the strengths-based approach in Indigenous culture, care and context. Respect worldviews, including knowledge systems, cultural protocols, values and ways of being. Engage in culturally appropriate ways for programs aligned with values and cultural safety.	The Aboriginal and Torres Strait Islander community of Yarrabah remains resilient and steadfast in maintaining their unique worldviews, encompassing knowledge systems, cultural values, and ways of being. We are continuously developing and apply a comprehensive and respectful understanding of Aboriginal and Torres Strait Islander cultural contexts, specifically from Yarrabah and beyond. By embedding cultural knowledge into our work, we ensure that programs are aligned with Indigenous values, cultural protocols and ways of being. This helps us respect and honour diverse worldviews and engage in culturally safe practices. Our approach prioritises the strengths of Aboriginal and Torres Strait Islander communities, focusing on their resilience and wisdom, while ensuring that our programs are not only appropriate but also supportive of their cultural safety and wellbeing.	Gurriny plays a vital role in delivering services that are genuinely responsive to the unique needs and perspectives of Aboriginal and Torres Strait Islander Peoples communities. Their deep understanding of local cultural contexts and community priorities ensures that the project remains grounded in the values, traditions, and knowledge systems of Aboriginal and Torres Strait Islander Peoples. This collaboration strengthens our approach, ensuring that programs are culturally safe and aligned with the community's values, fostering trust and effective engagement throughout the project.	Government bodies, Aboriginal and Torres Strait Islander-led organisations, and community leaders who advocate for cultural preservation and empowerment. We continue to build our awareness of these key macro players and networks. By engaging with these broader networks, we reinforce the importance of culturally grounded programs and contribute to sustainable change at multiple levels of society.

barriers to nutrition services can be addressed at this level. Although Aboriginal and Torres Strait Islander Peoples with CKD share many dietary challenges with the general population, they uniquely encounter inequitable access to culturally safe nutrition information and dietary support services.

Despite colonisation's impacts, Aboriginal and Torres Strait Islander Peoples maintain a significant source of strength, knowledge, and strong connections with traditional food culture while creating new foodways that support CKD management. [Anderson et al. \(2024\)](#) identified five pathways through which wellbeing is supported: connecting through food; accessing traditional foods; experiencing joy in food sharing; sharing nutritional information; and improving food security. These findings provide evidence to guide CKD nutrition programs that harness Aboriginal and Torres Strait Islander Peoples' strengths effectively ([Anderson et al. 2024](#)).

Macro level

The macro level encompasses governments, policy, national organisations and international factors affecting CKD nutrition care. This level can effect meaningful change, particularly when governments develop nutrition and dietary policies emphasising self-determination through Indigenous engagement and ownership. Engaging Aboriginal and Torres Strait Islander Peoples through government committees or CKD consumer steering groups allows them to take ownership of the policies that affect them.

National organisations demonstrate this approach through initiatives, such as Kidney Health Australia's CARI Guidelines ([Tunncliffe et al. 2023](#)), which include specific nutrition recommendations developed in partnership with Aboriginal and Torres Strait Islander Peoples communities and those with lived CKD experience. The Australian Government's 2019 National Strategic Action Plan for Kidney Disease ([Kidney Health Australia 2019](#)) acknowledges the health disparity affecting Aboriginal and Torres Strait Islander Peoples of Australia, and emphasises cultural safety and autonomy in nutrition care. Similarly, Dietitians Australia's 2021 guide to strengths-based communications ([Dietitians Australia 2021](#)) highlights the importance of acknowledging Aboriginal and Torres Strait Islander Peoples' resilience and strength in dietary practices, while recognising the impact of social determinants and institutional racism on nutrition-related health outcomes.

A case study for nutrition and CKD health and wellbeing in Yarrabah Queensland

Aims

To demonstrate how an Indigenous strengths-based theoretical framework can equip nutrition practitioners with tools to recognise, name and reframe deficit discourse. By identifying and amplifying the strengths of Aboriginal and Torres Strait Islander Peoples impacted by CKD, the project

offers an alternative to deficit-based approaches in primary health nutrition practice and research.

Case study setting and context

This case study explores the culturally responsive optimisation of a digital nutrition program for Aboriginal and Torres Strait Islander Peoples living with or at risk of CKD in Yarrabah, Queensland. The project continues as a collaboration between a multidisciplinary research team and Gurriny Yealamucka Health Service Aboriginal Corporation (GHYSAC), the local Aboriginal Community Controlled Health Organisation. In the early pre-funding phases of the project, GHYSAC identified a need for innovative, culturally relevant ways to communicate nutrition advice, particularly in the context of CKD prevention and management.

The project centres on adapting an existing mHealth nutrition application developed by Sophus, a North Queensland-based company. Although the app has demonstrated safety, feasibility and acceptability in CKD care, it has not yet been culturally optimised for Aboriginal and Torres Strait Islander users. GHYSAC's leadership and cultural governance continue to be central to this work, ensuring that the project aligns with local values, priorities and ways of knowing.

Case activities

Activity 1. The project involved three key research activities that served as our contexts for applying strengths-based approaches. These include: (1) scoping review of digital health programs for Aboriginal and Torres Strait Islander CKD-related care in Australia; (2) mapping review of publicly available digital nutrition resources currently used in Aboriginal and Torres Strait Islander People's kidney care, led by an Aboriginal student dietitian and mentored by the two authors, this review assessed publicly available digital nutrition resources currently used in Aboriginal and Torres Strait Islander People's kidney care; and (3) community co-learning workshops held throughout 2025 in Yarrabah and Cairns. These workshops brought together Aboriginal and Torres Strait Islander community members and health professionals to participate in two-way sharing of knowledge. Activities included education on kidney-related nutrition wellbeing, a bush food cooking demonstration and shared meal, followed by a research yarn about nutrition and optimising local digital nutrition programs.

Activity 2. Our case study is guided by ongoing collaborative and regular yarning sessions, which are central to our project's transparency and shared decision-making. These include: (1) fortnightly to monthly yarning between the two lead authors, conducted either online or in person, to reflect on project direction, cultural alignment and research progress; (2) weekly meetings with the broader research team, including representatives from Sophus (the digital platform developer) and the project leads, to discuss implementation, technical adaptation and integration of cultural insights; and (3) monthly

yarning sessions with GHYSAC and the project funder (CRCNA), which provide opportunities for strategic alignment, community feedback and oversight. These sessions ensure that GHYSAC's leadership remains central to the project and that the funder's support is responsive to community priorities.

Case outcomes. We applied Prehn's strength-based approach specific to nutrition and kidney health across the micro, meso and macro level, and exemplify through a worked example the six strengths-based principles (Table 2) to create our own case study exploring nutrition and CKD health and wellbeing in Yarrabah, Queensland. In implementing Prehn's strength-based approach and regularly updating Table 2 on a quarterly basis throughout the project, this process itself exemplifies strength-based principles across multiple levels: from individual team members (micro) to our collaborative partnerships (meso), ultimately providing a replicable framework that can inspire broader systemic change (macro). The case provides a replicable model for culturally responsive nutrition care that centres Indigenous leadership, knowledge and community priorities.

Discussion

As shown in Table 2, individual interactions between Aboriginal and Torres Strait Islander health workers, research assistants, students, and community members create meaningful connections and ensure cultural knowledge directly informs the project's development at the micro level. Community members with lived experience of CKD are consulted to contribute their valuable insights through advisory roles and direct participation in workshops focused on healthy nutrition. At the meso level, Aboriginal and Torres Strait Islander-led health organisations within and surrounding Yarrabah foster collaboration between traditional knowledge systems and the CKD nutritional approaches. These organisations bring deep community connections, cultural expertise and practical experience in delivering culturally safe health services. The partnership from our university and associated research centre adds over two decades of experience in implementing successful programs with Aboriginal and Torres Strait Islander communities.

Finally, the macro level encompasses broader institutional and policy frameworks, as well as clinical guidelines that support Aboriginal and Torres Strait Islander-led health initiatives, and culturally safe and effective kidney (Tunncliffe *et al.* 2023) nutrition care (Christidis *et al.* 2021). This includes oversight from research bodies focused on Developing Northern Australia, adherence to cultural protocols and ethical guidelines, and studying, aligning and understanding our role with institutional reconciliation action plans. These ensure the project maintains cultural safety while also maintaining scientific rigour.

More broadly (within the macro level), national organisations through initiatives, such as Kidney Health Australia's CARI Guidelines (Tunncliffe *et al.* 2023), include specific nutrition recommendations developed in partnership with Aboriginal and Torres Strait Islander communities, and those with lived CKD experience. The Australian Government's 2019 National Strategic Action Plan for Kidney Disease (Kidney Health Australia 2019) acknowledges the health disparity affecting Aboriginal and Torres Strait Islander Peoples, and emphasises cultural safety and autonomy in nutrition care. Similarly, Dietitians Australia's 2021 guide to strengths-based communications (Dietitians Australia 2021) highlights the importance of acknowledging Aboriginal and Torres Strait Islander Peoples' resilience and strength in dietary practices while recognising the impact of social determinants and institutional racism on nutrition-related health outcomes.

Public health providers, researchers and healthcare professionals need to be equipped to recognise and adopt strengths-based approaches when working with Aboriginal and Torres Strait Islander communities affected by CKD. This requires actively reframing deficit discourse, and challenging limiting perceptions that undermine Aboriginal and Torres Strait Islander Peoples' self-determination to develop their own culturally appropriate CKD nutritional resources. The application of Prehn's Indigenous strengths-based theoretical framework to nutrition-related CKD care represents a novel contribution to the field, addressing a significant gap in current research methodologies and clinical practice. By centring Aboriginal and Torres Strait Islander Peoples' knowledge systems, cultural practices and community strengths, public health initiatives can foster more effective, sustainable and culturally safe programs that honour sovereignty while improving health outcomes.

Although this case study demonstrates the importance and potential of strengths-based approaches in nutrition for Aboriginal and Torres Strait Islander Peoples' kidney health and wellbeing, there are limitations to acknowledge. The program is still in its early phase, and long-term sustainability will depend on continued community leadership, funding, and integration into Yarrabah and GHYSAC. Additionally, although the digital platform shows promise and has received good feedback from all stakeholders to date, its cultural optimisation is ongoing with community members and health professionals. We will continue to engage and learn with the community, and emphasise a strength-based approach to the programs ultimate cultural adaption and implementation.

Conclusion

In this article, we have argued for and demonstrated that utilising Prehn's framework can provide dietitians, nutrition researchers and public health practitioners with a structured

approach to recognising and building upon Aboriginal and Torres Strait Islander Peoples' and communities' holistic views on health and wellbeing, and amplifying collective strengths in managing CKD through traditional and contemporary food practices. Implementation of this across micro, meso and macro levels offers transformative potential for nutrition-related CKD care and broader public health initiatives, equipping professionals with tools to challenge the deficit discourse, promote cultural safety and foster self-determination. This shift not only enhances the cultural competency of nutrition care, but also supports health sovereignty for Aboriginal and Torres Strait Islander Peoples impacted by CKD, ultimately contributing to more equitable and effective public health outcomes. By embedding these approaches within public health policy and practice, we can address the structural determinants of CKD while honouring Aboriginal and Torres Strait Islander Peoples' knowledge systems and strengthening community-led health promotion efforts.

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