BMC Oral Health

RESEARCH

Open Access

Codesigning culturally safe oral health care with First Nations *Kidney Warriors* experiencing kidney disease in South Australia

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Abstract

Background This paper describes how First Nations *Kidney Warriors* (Aboriginal and Torres Strait Islander people living with kidney disease), dental hygienists, kidney health care professionals, an Aboriginal hostel accommodation manager and researchers co-designed an approach to improve oral health in South Australia. *Kidney Warriors* have strong connection to Country, Community and family that underpins health, wellbeing and approaches to research. However, significant colonisation, racism and marginalisation have impacted *Kidney Warriors'* social, cultural and financial determinants of health, leading to increased chronic conditions including kidney disease. Access to culturally safe, affordable and responsive oral health care is vital but challenging for First Nations Peoples undergoing dialysis and kidney transplantation; Australian oral health care is generally provided privately, in metropolitan centres, by professionals who may hold unconscious bias about First Nations Peoples and incorrect assumptions regarding equal access to care.

Methods The AKction – Aboriginal Kidney Care Together Improving Outcomes Now *kidney care oral health working group* codesigned strategies to address disparities and gaps in care, and co-create more accessible, responsive, culturally safe and sustainable models of care. A decolonising and collaborative participatory action research was informed by Dadirri Deep Listening and Ganma Knowledge Sharing with repeated cycles of Look and Listen, Think and Discuss, Take Action Together. A small pilot evaluation survey of clinical placement in an Aboriginal setting was undertaken.

Results Four phases of collaboration were undertaken. Community and health professional consultations identified key gaps and priorities. Clinical yarning and cultural safety training and an interprofessional skills day was co-facilitated. Dental hygienist student clinical placement at Kanggawodli Aboriginal Hostel was initiated and evaluated. First Nations K*idney Warriors* were positioned as educators and experts of their own lives and health care needs. A new framework for kidney health—oral health cultural safety and clinical education was developed.

Conclusion This codesigned approach involving inter-professional collaboration and joint decision making with community members has significantly informed improvements in oral health care information, services and referral with and for First Nations Peoples with kidney disease. This project provides a working example of how to decolonise health service and education programs from the ground up.

Trial registration NHMRC PAR 2004389.

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Keywords First Nations, Aboriginal and Torres Strait Islander, Oral health, Kidney health, Collaboration, Participatory action research, Decolonisation

Terminology

Throughout this paper 'First Nations Peoples' is respectfully used to refer to Aboriginal and Torres Strait Islander Peoples. The term Aboriginal is used in the project title-Aboriginal Kidney Care Together – Improving Outcomes Now (AKction), as preferred by the community participants at the project commencement. Country is spelt with a capital C to denote the importance of and spiritual connection to ancestors and land.

Background

The First Nations Peoples of Australia, Aboriginal and Torres Strait Islander Peoples, have the oldest continuous living culture in the world with deep connection to Country (the land, seas, waterways, skies, animals, plants and elements), communities (Aboriginal and Torres Strait Islander communities) and extended family members [1]. Relational networks underpin First Nations ways of knowing, being and doing and interactions in health, wellbeing and research [2]. First Nations Peoples people are 3.8% of the total Australian population; over a third live in major metropolitan cities, 15.4% live in remote areas and 9.4% live in very remote areas. The remainder of First Nations Australians live in inner and outer regional locations [3]. Over the last 225 years of colonisation, inequitable access to social, cultural and financial determinants of health, past and ongoing colonisation impacts, deeply entrenched racism and marginalisation and intergenerational trauma have had a significant and sustained effect on First Nations Peoples [4, 5]. This has led to significant health and wellbeing impacts, and chronic diseases such as kidney disease [4].

Kidney failure disproportionately impacts First Nations Peoples with higher rates of kidney disease occurring at younger ages. Within Australia, First Nations Peoples experience kidney disease at 10 times the rate of non-First Nations peers, with rates up to 30% higher in remote areas, associated with reduced access to preventative, specialist, home based and ongoing heath care [6, 7]. Kidney failure treatments such as dialysis, kidney transplantation and specialist care are predominantly provided in urban and regional centres areas, requiring many First Nations Peoples living in rural and remote areas to move away from family, Community and Country to receive lifesaving treatment [7]. The vast distances between home and health care often prevent kidney patients from rural and remote locations returning home on non- dialysis days. Dialysis is usually provided three days a week for approximately 5 h each session [8]. In South Australia, the majority of First Nations Peoples self-identify as Aboriginal, are 2.4% of the total population and encounter both similar and unique challenges in accessing health care as other South Australians, depending on where they live, the responsiveness of health care services and health professionals, and past and ongoing health care interactions [3, 9].

One of the treatment options that enables all people to live more independent lives, and for those from rural and remote areas to return home to their families, is kidney transplantation. However, although First Nations Peoples experience kidney disease at higher levels, they have lower levels of access to and receipt of kidney transplantation [7]. Responsive strategies are currently being developed to address this inequity, with recognition that meaningfully involving First Nations Peoples in decision making and codesign is vital for ensuring fit for purpose services and achieving health equity [10]. One of the biggest challenges to accessing kidney transplantation is completing the required workup, which includes regular dialysis, health screening, good oral health care, a full dental assessment and a certified letter from the dental specialist [11, 12]. Oral health is vital for successful kidney transplantation and post transplantation health because dental disease can lead to infections, inflammatory responses within the body, and fatal septic conditions for patients who are immunocompromised [12]. Achieving oral health is commonly the only obstacle preventing First Nations Peoples receiving a kidney [12].

Australia has a world class federally funded public health system, but oral health is provided separately, with limited publicly funded clinics. Dental care is predominantly provided through private services, usually based in urban centres. There are very limited publicly funded outreach clinics provided for people who cannot afford to pay for dental care [13]. Dentist and dental hygienist training occurs within Australian Universities and the Vocational Education& Training sector through Technical and Further Education (TAFE), with clinical placement in a range of in-house and community primary care settings. Dental hygienists have long had a preventive and therapeutic focus in Australia [13], but their involvement in meeting the prevention, education, screening and referral needs for First Nations Peoples, and those with lived experience of kidney disease specifically, has been minimal [13].

Many First Nations Peoples encounter significant oral health challenges associated with limited access to information and services while also experiencing diabetes, higher rates of infection, compromised healing and the impact of dry mouth. Years of dialysis, medications, and reduced fluid intake create specific oral health impacts, including erosion, caries, periodontal diseases and oral lesions for people with kidney failure [14]. This increases the need for effective two-way health literacy and knowledge translation between oral health care providers and community members [14], and access to flexible, culturally safe oral health care and information [15, 16]. However, transfer of knowledge and messages between First Nations community members, and those working in health and support roles is often complicated by lack of effective communication [17]. Health literacy gaps are often 'blamed' on the recipients of care, rather than focusing on the skills and health literacy of health care professionals, and access to language appropriate and responsive resources [16]. Within oral health care services, there can be poor understanding of the importance of outreach, what outreach means in practice, how to enact it, and what collaborations are needed for successful implementation. This is even more complex when meeting the needs of First Nations Peoples from rural and remote areas [18].

There are also differing understandings of cultural awareness, cultural competency and cultural safety and confusion around these concepts and underlying intent [15, 19, 20]. Cultural awareness training is common in Australian health care settings and can be considered as a beginning step toward understanding that there is a difference between cultures and often focuses on learning about the culture of other people [19]. Cultural competency focuses on interacting with people who are culturally different to oneself. This requires a level of personal reflection, and changing one's practice in response to what the culture of another person is perceived to be [15]. Cultural safety training and concepts go a step further, requiring practitioners and students to undertake a process of self-reflection to explore their own beliefs, values and attitudes and how these may impact on the care they provide. There are five main principles of cultural safety; reflecting on one's own practice, seeking to minimise power differentials, engaging in discourse with a patient/client, undertaking a process of decolonisation and ensuring that one does not diminish, demean or disempower others through one's own actions [20]. Importantly, the level of cultural safety achieved is defined by those receiving care [19, 20]. Decolonisation involves recognising the past and ongoing impact of colonisation [15], listening to and centring the voices and priorities of First Nations Peoples, addressing unconscious bias and actively seeking to reverse and remedy the impact of colonisation through direct action [20, 21].

In Adelaide, South Australia, the AKction: *Aboriginal Kidney Care Together – Improving Outcomes Now* project, a 5-year National Health and Medical Research Centre funded participatory action research project, has been initiated to improve the experience and outcomes of kidney care for and with First Nations patients, families and community members and kidney health services [22]. The *AKction project* is led by a Barkindji-Malyangapa and German-British-Welsh public health researcher, a Kaurna-Narungga-Ngarrindjeri, Ngarrindjeri-Yorta Yorta, and Adnyamathanha woman with lived experience of kidney disease (*Kidney Warriors*) and a British nephrologist as chief investigators. Indigenous Governance is provided by a reference team of ten First Nations Peoples living with kidney disease (*Kidney Warriors*) and their families from across South Australia. Associate investigators are two First Nations and seven non-First Nations researchers and clinicians. There are four nested sub studies: Indigenous Governance; Peer support; Kidney Journey Mapping and Cultural Safety [22].

Oral health was raised as a significant issue by First Nations community members in initial community consultations, reference team meetings, key stakeholder meetings and kidney journey mapping. In response, a small *kidney care-oral health working group* was established within the AKction project to further investigate access issues, and devise innovative, culturally safe strategies to address them.

The work of this team is based at Kanggawodli Aboriginal hostel where many Aboriginal people and *Kidney Warriors* stay while accessing tertiary health care including culturally supported kidney health care and dialysis. Kanggawodli is a Kaurna word meaning Caring House (pronounced 'Gan-ga-wod-li'). Two, and then three dialysis machines were placed within this hostel as a pilot model of care from August 2020 to August 2022 in response to community concerns raised about the challenges of travelling to and from dialysis, and the number of dialysis sessions missed leading to *Kidney Warriors* becoming acutely unwell and requiring emergency admissions [23]. The AKction project and *Kidney Warriors* were significantly involved in co-designing this change with kidney health services toward more responsive dialysis care. An independent, formal evaluation of this community-based model of dialysis found that that it was responsive to unique needs of patients, perceived by them to be safer and more culturally supportive, family centred and increased their social and emotional wellbeing [23].

The *kidney care-oral health working group* comprises AKction First Nations and non-First Nations researchers

and First Nations reference team members (described earlier), a Malak Malak manager of the Kanggawodli Aboriginal Hostel, a non- First Nations Scottish-Irish-Danish dental hygienist with well-established networks, an Italian-German senior lecturer and dental hygienist from TAFE SA vocational college, an Gooniyandi Aboriginal Health Practitioner and a Irish/Welsh Nurse Coordinator from kidney health care services. This AKction collaborative team are also the authors of this paper. This paper describes how the *kidney care-oral health working group* co-designed and co-facilitated an innovative response to improve oral health education and promotion, access and referral pathways for and with Aboriginal people with kidney disease. The *working group* aimed to codesign strategies to address disparities and gaps in care, and co-create more accessible, responsive, culturally safe and sustainable models of care together.

The *working group* brought together diverse skills, experiences, expertise, cultural backgrounds and experiences. Together the group co-designed shared goals and strategies and allocated tasks. All involved were willing to work together, critically reflect on their own thoughts and actions, and work through the inevitable uncomfortable moments, misunderstanding, disharmony and miscommunication when it occurred, either within the group, or with key partners. The team's approach was underpinned by concepts of cultural safety [15, 20], decolonising methodologies [24], mutual respect, and a strong desire to improve care. When one door closed, the team kept searching until another opened. The *working group* came together relatively quickly and effectively, building on relationships that span years and decades. Meetings were held face to face in workplaces and at Kanggawodli, online, via emails and telephone. Each member engaged in the collaboration as part of their existing workload, expanding their priorities and roles to enable the shared goal to succeed. Another important aspect was weaving together activities and connections between people and services over time, pooling resources, time, skills and resources. *Kidney Warriors* and dental hygienists played a key role in this weaving, as is shown visually in the Fig. 2 story map.

Methodology and methods

The *AKction project* uses a decolonising methodology and collaborative community-based participatory action research (PAR) [22], bringing together First Nations and Western research methods and concepts into a co-designed intercultural approach [22]. Decolonising approaches recognise that research has historically and institutionally been contrived in a Western construct [25], and that *Indigenous methodologies and methods can be used to shift the research paradigm and privilege Indigenous ways of knowing, being and doing* ([24], p 2). This recognises the importance of relationality to each other, and deep connection to Country, community and culture.

A flexible, iterative and responsive community-based PAR approach was developed in an earlier collaboration project with First Nations women to improve access to care [26]. In that study, the First Nations women and a non- First Nations nurse researcher worked together to co-design a participatory action research approach that ensured the women's voices were heard, they were actively involved in decision making and in determining responsive actions. They began with Stringer's Look, Think, Act approach to action research [27], and added First Nations philosophies and methodologies to inform how each step would be undertaken. This resulted in a decolonising strengths-based approach to PAR that involved repeated cycles of Look and Listen, Think and Discuss, and Take Action Together guided by concepts of Dadirri deep listening [28, 29], Ganma knowledge sharing [30], and cultural safety [15]. This process and the underlying philosophies used to guide the AKction project and *working group* activities, are now explained in more detail.

The authors respectfully acknowledge that non-First Nations practitioners must avoid inadvertently colonising First Nations methodologies as they are First Nations knowledges [29]. We also recognise that First Nations methodologies can inform and encourage non-First Nations researchers and clinicians to conduct intercultural decolonising research and clinical practice in respectful collaboration with First Nations Peoples.

Look and Listen – Dadirri deep listening

The importance of paying attention to both verbal and non-verbal cues by using one's eyes, ears and heart is shared by many Aboriginal groups across Australia, and has been described by the Ngangikurungkurr people of the Daly River region in the Northern Territory of Australia as Dadirri [28, 29]. Dadirri reminds clinicians and researchers of the importance of respectful listening and co-creating places that enable Aboriginal people to share their stories without judgement; recognising the impact of personal and professional power imbalances and the trauma caused by racism, marginalisation and tokenism. Dadirri involves slowing down and making time to listen. As described by Ungunmerr, *Dadirri… is an inner deep listening and quiet still awareness.* Dadirri requires a deep critical reflection, listening to and observing oneself, as well as and in relationship with, others. In this way, Dadirri is a Ngangikurungkurr form of reflexivity, of examining one's own actions in clinical care and research [29]. Incorporating the concept and practice of

Dadirri was a crucial step in establishing and maintaining trust and respectful relationships between *working group* members, and between students and First Nations community members.

Think and Discuss – Ganma knowledge sharing

The concept of Ganma, two-way knowledge sharing provides additional guidance on how to respectfully bring together First Nations and Western knowledge in research and clinical interactions. The Northern Australian Yolngu people have shared the concept of Ganma, two-way knowledge sharing [30]. This Yolngu philosophy values and acknowledges the unique knowledge that each person holds. Ganma is both a metaphor and a philosophy of what happens where a river of water from the sea (Western knowledge) and a river of water from the land (Aboriginal knowledge) mutually engulf each other, flowing together and becoming one. The forces of the streams (knowledge) combine and lead to deeper understanding and truth, and the foam produced when the saltwater mixes with the fresh water represents a new kind of knowledge. Ganma is a place where knowledge is (re)created [30, 31]. Ganma informed the *working group* activities reinforcing the importance of including both community and health professional knowledges into discussions and shared decision making.

Take action together – enacting culturally safe responses

The third step involved taking collaborative action in response to conversations and collective decisions made. Actions taken were informed by cultural safety and the underpinning concept that clinical care (and involvement in research), is culturally safe if it is perceived to be so by the recipients of care/community person [15, 20]. Cultural safety originated in Aotearoa New Zealand, when Māori nurse Irihapeti Ramsden [20] identified the need to address racism and power imbalances in health care. Cultural safety provides five key principles for clinicians and researchers. These are; reflect on your own practice, engage in conversation/discourse, seek to minimise power differentials, undertake a process of decolonisation, and ensure you do not diminish, demean, or disempower others through your actions [15].

Two additional methods were added by the *kidney care-oral health working group* to specifically inform the student education and clinical placement activities: clinical yarning and a student survey. During the initial stage, the AKction project and *kidney care oral health working group* recognised that although successful communication is central to every clinical consultation, effective communication between First Nations people and kidney health and oral health clinicians is often problematic and is arguably the biggest barrier to effective health care delivery [17, 32]. Clinical yarning is a patient centred approach that involves three stages; the social yarn in which the practitioner seeks to find common ground and develop an interpersonal relationship; the diagnostic yarn in which the practitioner hears the patient's health story and interprets it through a clinical lens; and the management yarn which is care planning and explaining health issues in ways that community members can better understand, using stories and metaphors as tools [33]. In many ways, clinical yarning mirrors the Look and Listen, Think and Discuss and Take Action Together cycles in the PAR approach (as shown in Fig. 1), and applies it to a clinical setting. The *working group* incorporated clinical yarning theory and practice into student and staff education and clinical placement activities.

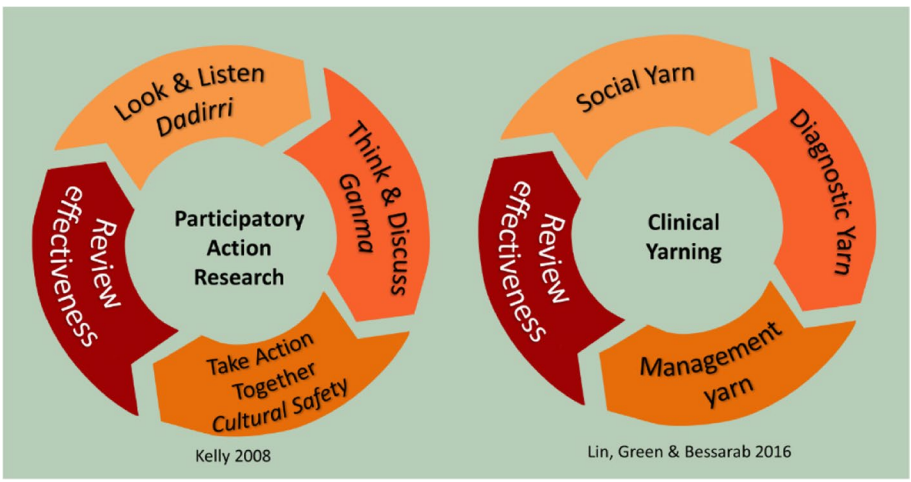

Fig. 1 PAR and Clinical Yarning

As part of planning and evaluating the dental hygienist clinical placement at Kanggawodli, a simple pre and post clinical placement pilot survey was initiated by the dental hygienist senior lecturer for students attending placement (see Table 1) to encourage deeper reflection from the students and provide student learning and feedback on their experience of this new clinical placement. The survey was conducted in October and November (semester 2) 2022, March, April, May and June (semester 1) and August, September and November (semester 2) 2023 as part of the course evaluation and quality improvement. All 22 students were sent a Survey Monkey link before and following their clinical placement and given a week to respond. Student responses were anonymous and non-compulsory. There were 17 responses from the 22 students. These were downloaded from Survey Monkey, allocated a participant number (in order of responses), collated and analysed using a simple descriptive analysis [34]. This student feedback informed the clinical placement the following semester.

Ethics

Ethics approval was provided by the Aboriginal Health Research Ethics Committee (#04–18-796), the University of Adelaide (ID:33,394) and Central Adelaide Local Health Network (HREC/19/CALHN/45). Indigenous Governance through all stages of the research was provided by members of the AKction Reference Team. Oral Hygienist students were fully informed about the research project and the opportunity for them to participate in a pre and post clinical placement survey. The survey preamble sent to each oral health student (provided as a supplementary file) included consent to participate.

Results

The activities undertaken, and the process used are reported as results. Four phases of co-designed activities emerged as the collaboration deepened and opportunities were co-created as follows; Phase 1: initial identification of oral health—kidney health priorities and concerns from *Kidney Warriors* and kidney health and oral health practitioners and researchers as part of the *AKction* project; Phase 2: Cultural safety and clinical yarning training and an interprofessional skills day based at TAFESA Vocational College; Phase 3: Dental hygienist student clinical placement at Kanggawodli Hostel; and Phase 4: Review effectiveness, codesign of a new framework for Kidney health—oral health cultural safety education and next steps. Details of these activities and the processes taken during cycles of Look and Listen, Think and Discuss, and Take Action Together are shown in Table 2.

Student pre and post clinical placement survey responses

A total of 17 of the first 22 students involved in piloting the clinical placement in October and November 2022, March to June and August to November 2023 as part of Phase 3 -Take Action cycle completed the survey. The survey responses varied in the amount of free text feedback given, but overall provided enough feedback to enable the dental hygienists to move from the pilot to more substantial involvement of all 2nd year dental hygienist students ongoing.

Students indicated that the clinical placement improved their awareness and enabled them to feel more comfortable and familiar in ways to work effectively and respectfully with First Nations community members.

> *I feel more comfortable talking to Aboriginal and Torres Strait Islander people and should hopefully translate into being more comfortable in providing culturally safe treatment (Student response 2).*

Table 1 Pre and post clinical placement pilot survey questions

Pre-clinical placement survey questions
1. What age, gender mix and living arrangements do you expect to be seeing during your visits?
2. What do you expect to encounter regarding, physical, cognitive and social abilities?
3. Given your current knowledge and experience, how comfortable do you feel about providing culturally safe care to Aboriginal and Torres Strait Islander people?
4. How do you perceive the role of the Oral Health Professional, as part of support and allied health services, including types of dental care, that will be provided during your visits?
5. Do you believe your visits will influence your understanding of holistic care and inter-professional relationships?
Post clinical placement survey questions
1. Do you believe you now feel more aware and comfortable about providing culturally safe care to Aboriginal and Torres Strait Islander people?
2. How do you perceive the role of the Oral Health Professional, as part of support and allied health services, including types of dental care, that will be provided during your visits?
3. Do you believe your visits will influence your understanding of holistic care and inter-professional relationships?

Table 2 Four phases of codesigned activities

Process	Steps taken
Phase 1: The AKction – Aboriginal Kidney Care Together—Improving Outcomes Now project	
Look and Listen *Dadirri*	*Kidney Warriors* met with researchers • Community members with lived experience of kidney disease (*Kidney Warriors*) had been advocating for improvements in kidney care, oral health care and transport but were unable to make real changes as individuals (over many years) • Kidney health clinicians and public health researchers met with *Kidney Warriors* to discuss whether they were interested in co-designing a research project (June 2018)
Think and Discuss *Ganma*	Community consultations with *Kidney Warriors* and health professionals were held in: • Adelaide – Kanggawodli Aboriginal hostel where people from rural and remote areas were staying while seeking specialist medical care (December 2018) • Regional Port Augusta Dialysis Unit and Aboriginal Health Service (February 2019) • Remote Ceduna Hospital and Aboriginal Health Service (July 2019) Kidney health and oral health practitioners met with researchers • Identified gaps in care and began kidney health-oral health collaboration (March 2019) AKction1 key stakeholder meetings were held involving *Kidney Warriors*, kidney health, oral health and Aboriginal health professionals and educators, peak bodies, policy makers, funders and decision makers • Focus on transport and accommodation (November 2020) • Focus on oral health and workforce (November 2021)
Take Action Together *Cultural Safety*	Establishing research program and focus • Kidney health professionals and researchers successfully apply for funding for AKction1 (2018–2020) & AKction2 (2020 – 2025) projects • Aboriginal warriors provide Indigenous Governance through AKction Reference Team (A2RT) (2020–2025) Co-designing improved models of kidney care • AKction, renal services and Kanggawodli Hostel work in collaboration to address transport and accommodation concerns impacting access to dialysis (2019- 2024) • Two dialysis machines piloted at Kanggawodli Hostel (2 year pilot August 2020 – August 2022) Seeking to improve oral health alongside kidney care • *Kidney care oral health discussions begin* (November 2020) • Involvement of dental school staff and students investigated, but not feasible at that time (January 2021) • Involvement of dental hygienists at TAFE SA – beginning of *Kidney Care Oral Health Working Group* (November 2021) • Site meetings at Kanggawodli Aboriginal Hostel (May 2022)
Phase 2: Clinical yarning and cultural safety training and Interprofessional skills day at TAFE SA Vocational College	
Look and Listen *Dadirri*	Review what is currently happening: • at TAFE SA Vocational college (November 2021 – February 2022) • what involvement AKction Reference Group Team members, Aboriginal health professionals and Kanggawodli Hostel manager would like to have/had capacity for (November 2021 – February 2022)
Think and Discuss *Ganma*	Discussing and deciding the priorities, approach and logistics of holding sessions *Cultural awareness and cultural safety training planning phase* (March – April 2022) Aboriginal Kidney Warriors, Aboriginal and non-Aboriginal educators came together to discuss lived experiences, education approaches, and how best to co present the material together *Interprofessional skills day planning phase* (March – April 2022) Discussing which strategic health professional and key stakeholders to be involved as presenters and attendees

Table 2 (continued)

Process	Steps taken
Take Action Together *Cultural Safety*	Cultural awareness and cultural safety training sessions (April 2022) • In-class workshop/lecture for all 2nd year dental hygienist students • Provided by Aboriginal Kidney Warrior, Kanggawodli manager/cultural safety educator, AKction nurse researcher/lecturer, and experienced dental hygienist Interprofessional skills day event (July2022) with 70 attendees including: • 1st and 2nd year Dental Hygienist Students and staff education workshop at TAFE SA • Key stakeholder attendees included RFDS- Royal Flying Doctor Service, specialist dental practitioners, representatives and leaders from peak dental health professional organisations including Australian Dental Association and Dental Hygienist Association of Australia
Phase 3: Dental hygienist student clinical placement at Kanggawodli Hostel	
Look and Listen *Dadirri*	Site visits at Kanggawodli • Involving educators and managers at TAFE SA, Kanggawodli manager and kidney care staff (May 2022) • Review student timetable and Kanggawodli schedules and activities. (May 2022)
Think and Discuss *Ganma*	Substantial planning for Dental hygienist student clinical placements at Kanggawodli (June – September 2022) • Involving TAFE SA, Kanggawodli manger and kidney health staff • Logistics, timing, days of the week – what suits the residents best, led by the Kanggawodli manager Discussion of best approach for piloting clinical placement (June – September 2022) • Decision to start with two sessions, with three students in each. This number of students would be manageable and not overwhelm residents and people on dialysis
Take Action Together *Cultural Safety*	Clinical placement pilot – 6 students • First clinical placement involving 3 students × 2 sessions (October& November 2022) • Review effectiveness through student pre and post survey (October& November 2022) Second clinical placement – 16 students • 2nd year dental hygienist students: 4 students × 4 monthly placements and pre and post survey (March, April, May, June 2023) Third clinical placement – 14 students • 2nd year dental hygienist students: 3–4 students × 4 monthly placements and pre and post survey (August, September, November × 2 2023) Attendance of all *oral health-kidney health working group* at the CARI Guidelines launch – the first Australian National guidelines for culturally safe and clinical kidney care for First Nations Australians (October 2023)
Phase 4: Review effectiveness and next steps	
Look and Listen *Dadirri*	Evaluation of activities and processes (November 2022 – June 2023) • What is working, what needs changing, what further improvements can be made? • How can oral health services be expanded across other Aboriginal health service sites?

Table 2 (continued)

Process	Steps taken
Think and Discuss *Ganma*	Determining the benefits and challenges emerging from the collaborative activities (June 2023 – September 2023) • Discussion points and **benefits from multiple perspectives** recorded – see Table 3 • A **new framework for Kidney health—oral health cultural safety education** developed – see Table 4 Discussion of how will we share what we are learning? How to progress a range of impactful and inclusive knowledge transition activities? • What steps are needed to move from a pilot project to an embedded, sustainable service? • Review of what services are currently being provided and where the gaps are • What funding is required and possible sources? • Possible collaborations with existing services and networks • Building on the emerging Indigenous Oral Health Alliance, bringing together all Oral Health services in South Australia providing services with/for First Nations Peoples How to increase the number of clinical placements for each student from 2024? • Ongoing discussion with Kanggawodli re capacity
Take Action Together *Cultural Safety*	*Working group* knowledge translation activities • Present at national dental hygienist conference as a panel (September 2023) • Consider and discuss the benefits of the collaboration from multiple perspectives and collaboratively write a peer reviewed article (this paper) (July – December 2023) • Co-design a visual map recording the group's collaborative activities over time, which is accessible for participants/audiences with varying English literacy (Fig. 2) (August – December 2023) • Moodle learning and content update for students pre and post Kanggawodli clinical placement (January and February 2024) Received Australian Dental Health Foundation funding grant money (November 2023) • to support student engagement • for hygienists to be involved in education, screening and support • to provide education, consumables, portable light for screening

It is about letting them come to you and letting them tell their story if that is what they wish. I felt very comfortable, very quickly (Student response 15).

Physically, most of the people are compromised with kidney dialysis/transplant. Cognitively and socially – most people engaged in a discussion with us about where they had come from and a little about their families. I think the main takeaway for me was that this population group appreciate time and patience to allow them time to tell their story without being rushed (Student response 1).

Students came to understand their role as an Oral Health professional working with First Nations Peoples more clearly.

Oral health professionals, with consideration to the past & present experiences of Aboriginal Australians in oral health, play a vital role in helping to close the gap between non-Aboriginal Australians and Aboriginal Australians… building a bridge to hard-to-reach communities… and ultimately deliver culturally safe healthcare practices (Student response 7).

Education in general is a fundamental right for everyone, …providing oral health education & promotion to these communities, can potentially enhance lives (health wise) and promote feeling of cultural safety (Student response 5).

The advice we provide in oral health care should line up with individual health needs. If the patient has specific needs, we need to alter our care and remember that our 'usual' advice isn't always applicable (Student response 12).

Students also identified scope for expansion with the clinical placement and services offered at Kanggawodli, recognising the importance of outreach, education and screening.

It would be great to eventually have an oral health screening/provide oral hygiene education at Kang-

gawodli- including denture care (Student response 1).

I do believe it would be beneficial to have a screening/ treatment program at Kanggawodli. It can be something that is provided in house which means they do not need to travel into town. It is important to allow access to all health services including dental (Student response 2).

All students agreed that their clinical placement had positively influenced their understanding of holistic are and interprofessional relationships. Some of the students had opportunities to work alongside the dialysis nurses and kidney health staff, improving their knowledge and skills in working inter-professionally.

The benefits from multiple perspectives

In Phase 4, the *working group* discussed the benefits of the collaboration for all key stakeholders involved, and decided to share this in a publication (this paper). These conversations occurred in face to face and online meetings and via email from July to December 2023 as part of Phase 4 reviewing effectiveness and next steps as shown in Table 2. The benefits were found to be multilayered and interlinked as shown in Table 3.

Table 3 Benefits emerging from the collaboration from multiple perspectives

***KidneyWarriors'*perspective**
- Improved access to oral health information, assessment and referral
- Active involvement in co-designing improved care 'nothing about us without us'
- Social and human connection—we are a long way from home and get to share our stories and connect – we miss our home, family and community, and to have someone sit and listen is very good

Kanggawodli Hostel perspective
- The oral health promotion, screening and referral activities have complemented existing wrap around services being establish for Kidney Warriors staying at the hostel, attending dialysis, and or kidney transplantation workup
- This is filling a gap in the primary care assessment and supported referral pathway

Benefits for dental hygienist students
- Students have increased understanding of inequities, complexities, access issues, barriers to accessing treatment, and the importance of two-way communication in increasing health literacy of both client and professional
- Seeing and hearing people's stories, the statistics become human
- Students have experienced the challenges through the stories and by walking alongside Kidney Warriors, changing their perspectives from 1 to 3 dimensional
- These students are the future workforce, and they are gaining a contextualised understanding and knowledge of what culturally safe practice is
- Students report feeling more confidence in providing culturally safe and responsive care
- Clinical yarning strategy extends medical dental history and is something that students can take with them in their careers
- Students have learned how to sit quietly, and let community members come to them, and that there is no such thing as an awkward silence. Learning not to fill the gaps in communication
- Meeting community members in a community setting and asking, what do they want, not what we think they want (avoiding repeating mistakes of the past)
- These 2nd year students, soon to become dental hygienists, are learning how to build trust when working with First Nations and marginalised populations

Benefits for dental hygienists, facilitators and educators
- The stories shared during all the activities have been impactful for both staff and students. They are funny, confronting and sad. We feel their sadness, missing home and family. One person said 'my heart is there [in their remote home community, while they were stuck here in the city]'
- Being involved in the working group activities has revitalised personal interest in clinical work, giving a new lease of life, and new meaning to work
- Have gained more confidence in working with Aboriginal community members and Aboriginal colleagues
- The working group activities have become a catalyst for increasing support from the vocational college, dental services and management who are recognising the importance of the work and how this informs future pathways in education and clinical care
- The working group activities have reinforced health promotion perspectives, and that they have to be targeted at different levels. Multiple layers of health promotion are needed to address the social determinants of health
- The clinical placement at Kanggawodli has strengthened interprofessional collaborations, meeting allied health professionals also caring for people at Kanggawodli and making referrals together

Benefits for kidney health professionals and services
- Improved collaboration between oral health and kidney health professionals and services
- Improved access and options for Kidney Warriors on dialysis, and also for those undergoing kidney transplantation workup
- Improved access across a spectrum of social determinants with financial, transport and language barriers
- Improved self-esteem, confidence and engagement of patients

Benefits for the AKction project
- The working group activities have enabled the AKction team to respond to Kidney Warriors oral health concerns and priorities, and to support their involvement in meaningful co-design of decolonising and culturally safe responsive strategies
- Increased skills, knowledges and experience in the working group and expanded collaboration, extending our relational network

The kidney health – oral health collaboration story map

The AKction team have experience and skills in ensuring results are translated so that they are accessible, understandable and applicable for community members, *Kidney Warrio*r participants, health and educational professionals and researchers. This includes using mapping, stories and pictures to share detailed information about processes used, activities undertaken, and shared findings. The *kidney health—oral health working group* and the AKction team co-created a story map of the collaboration.

Discussion

Working with Kidney Warriors

This project aimed to codesign strategies to address disparities and gaps in care, and co-create more accessible, responsive, culturally safe and sustainable models of care together, increasing oral health care information, services and referral with and for *Kidney Warriors*—First Nations Peoples living with kidney disease. In Australia, and internationally, there is increasing recognition of the need and preference for strengths based decolonising research and clinical approaches co-designed with people who have been significantly and negatively impacted by societal structures, history, government policies and health care practices [5, 8, 35]. All too often people experiencing significant challenges are positioned as recipients of care with few decision-making opportunities within a health system that is governed by top down polices and biomedical concepts and practices [8]. This project sought to address this inequity and co-design more responsive oral health care by recognising *Kidney Warriors* as knowledgeable recipients of care and privileging their voices and priorities. Bringing together a diverse inter professional *working group* comprising accommodation services, oral health and First Nations and non-First Nations care providers, educators and researchers to work alongside *Kidney Warriors* enabled collaborative identification of gaps in care, discussion of options for improvement, and co-design of responsive strategies for improvement.

The AKction team and *kidney health—oral health working group* have come to understand that working respectfully and responsively with *Kidney Warriors* requires specific strategies, flexible arrangements and additional support structures. What became apparent to the whole working group is the extent to which many *Kidney Warriors* juggle fluctuating health and energy levels, restrictive dialysis and treatment timetables and the impacts of additional chronic conditions. In addition, there is an underlying and significant level of loss and grief experienced by First Nations Peoples, far too many funerals and ongoing Sorry Business (an important time of mourning that involves responsibilities and obligations to attend funerals and participate in other cultural events, activities or ceremonies with the community) [8]. For example, the *Kidney Warrior* who was significantly involved throughout most of this activity was in and out of hospital on and off throughout the project, sometimes for months at a time, and sadly, passed away before the project was complete. Her central role in co-leading the project, teaching staff and students, and actively inviting and involving other First Nations community members cannot be underestimated.

Co-designing a decolonising, culturally safe collaborative approach

A recent international systematic review of cultural safety in kidney care with First Nations Peoples [30] identified the importance of community-driven kidney care in which First Nations language, and ways of knowing and being and traditional ways of healing are prioritised. Similarly, the AKction project and the *kidney care-oral health working group* sought to respectfully incorporate First Nations approaches of Dadirri deep listening [28], Ganma knowledge sharing [30], Cultural safety [15] and clinical yarning [16, 33]. Care was taken to recognise and reinforce First Nations methodologies as First Nations knowledge [29], shared generously and explicitly for the purposes of improving collaboration and responsiveness of non-First Nations Peoples, services and approaches.

A specific participatory action research methodology was also purposefully selected to enable the group to level the playing field, privilege First Nations voices, and actively recognise and reinforce the strengths of patients and people whose specific health care needs have been prioritised. Working on the basis of 'nothing about us without us' informed the co-design of responsive strategies to improve care. Often clinically based action research processes involve repeated cycles of plan, do study act [36]. However, our team have found that these clinician-led approaches can reinforce Western hegemony and are therefore not appropriate nor effective in community connected intercultural projects that occur within a context of past and ongoing colonisation and intergenerational trauma [22, 26].

True collaborations take time. As can be seen in Table 2 and Fig. 2, it has taken a long time to establish, build and implement working relationships and co-designed activities; from initial community consultations in 2018, to collaborative education sessions in mid-2022 and clinical placements in late 2022 and 2023. Each collaboration is built on new and existing relational networks, mutual respect and trust. This all occurs against a backdrop of colonising research and health care practices that have inflicted significant harm for First Nations Peoples over many decades [8, 37]. The importance, complexity and

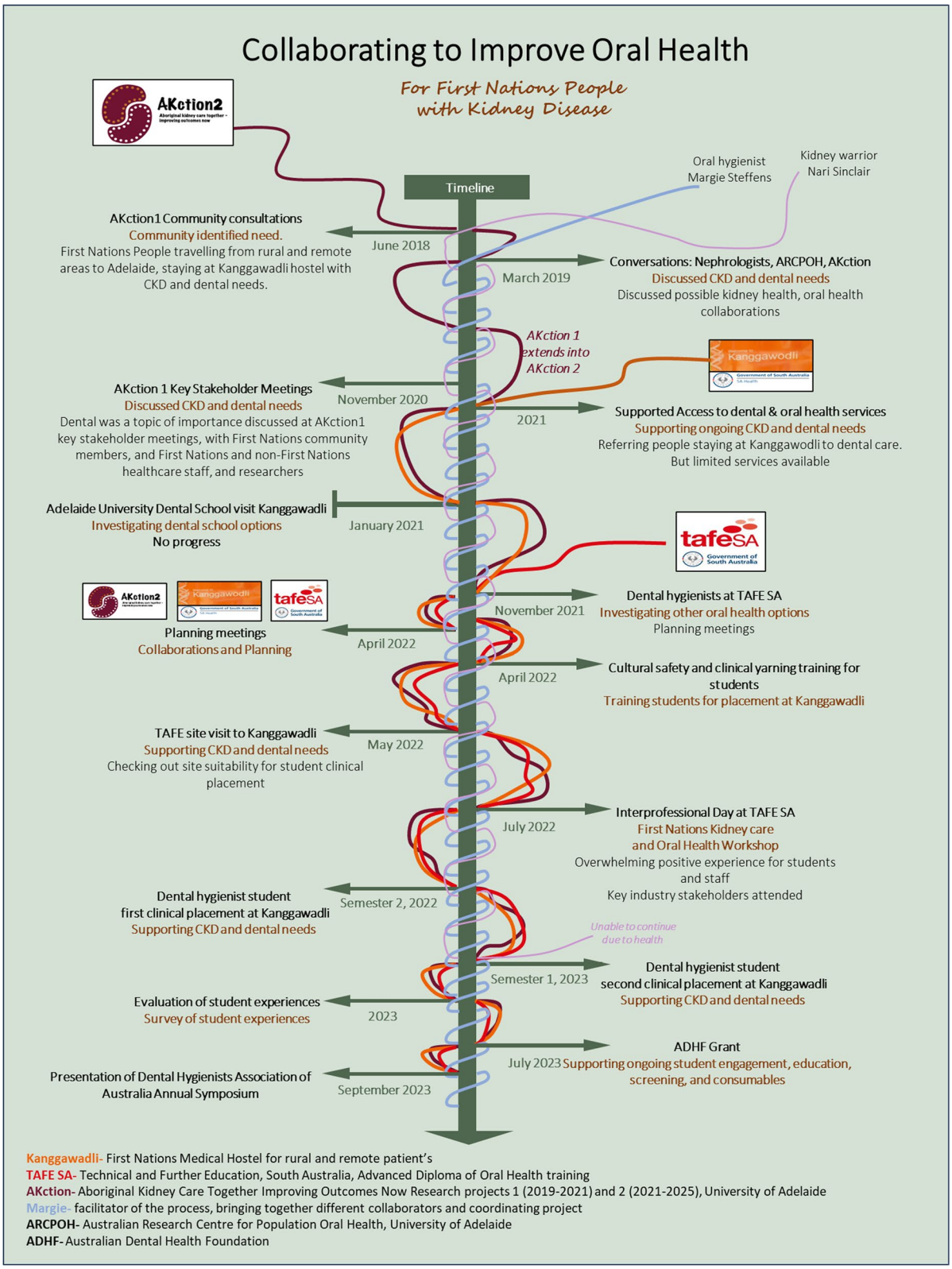

Fig. 2 Story Map goes here] (attached as PDF)

care required to re-build trust in research and health care with First Nations Peoples cannot be overstated [37].

Co-designing a new framework for culturally safe oral health care and education

While writing up the collaboration process and findings, the *working grou*p co-created a new framework for kidney health – oral health cultural safety education and clinical care. This framework brings together learning from previous renal nursing collaborations [38], cultural safety concepts [15] and the three *working group* education activities; Cultural awareness and cultural safety training, the Interprofessional day at TAFE SA, and the clinical placement at Kanggawodli (see Table 4). The framework begins by considering levels of clinical skill acquisition as described by Dreyfus [39] and Benner [40] and how this applies for dental hygienist students and experienced dental hygienist clinicians and educators. The framework then introduces cultural safety and the process of learning about cultural safety and how to incorporate the key concepts into clinical practice. The main education activities: cultural awareness and cultural safety training, the interprofessional day at TAFE SA, and the clinical placement at Kanggawodli are placed within the framework, identifying how these helped students to progress along the journey of increasing their cultural awareness and safety. The pivotal role of *Kidney Warriors* is clearly shown. This includes both the involvement of AKction chief investigator and reference group member *Kidney Warriors*, and also the two-way learning that occurred between students and other *Kidney Warriors* (First Nations Peoples with kidney disease staying at Kanggawodli and/or attending dialysis) in oral health care discussions during clinical placement at Kanggawodli.

Cultural safety involves lifelong learning. It is a journey, not a destination [15]. Part of the discussion in developing this framework involved a decision to not use the term cultural competency. This is due to previous observations of *working group* members and colleagues that some health and medical science students have completed cultural competency training and walked out believing they are now competent, and have nothing further to learn [21]. The limitations and dangers of using cultural competency have also been explored by nursing scholars, particularly in relation to the pressing need to decolonise health care [41]. Cultural safety requires practitioners to self-reflect and recognise power imbalances that exist between ethnicities, particularly in colonised countries. It highlights the dynamics of institutional racism and that the safety and responsiveness of care needs to be determined by recipients of care [15, 41]. Cultural competency can be informed by a range of frameworks, often involves the attainment of mastery and knowledge of another group's culture, and does not explicitly address power imbalances and colonisation impacts in the same ways that cultural safety does [15]. Importantly, the cultural safety emphasis, process and activities undertaken by the *working group* in this project, and embedded within dental hygienist training, has assisted both students and staff to move from cultural safety as a concept, toward cultural safety and decolonisation in practice. The importance of learning and unlearning, and for non-First Nations educators to become effective accomplices in improving health care and education, has been clearly identified by Rix et al. [21]. A decolonising, culturally safe approach is fundamental to addressing the inequities that continue exist for *Kidney Warriors* and other First Nations Peoples.

Increased understanding of what responsive oral health care for First Nations kidney care involves

Another significant outcome of this collaborative project was a deeper understanding of what responsive oral health care needs to include for *Kidney Warriors*. The daily challenges encountered in juggling dialysis and treatment, family, caring and community commitment and ongoing colonisation and grief and loss make prioritising oral health difficult. *Kidney Warriors* who have relocated from rural and remote locations face additional challenges involving transport and accommodation, language and communication and dislocation from family, community and country [8].

Dental hygienist students and staff were able to explore and practice how best to increase health literacy for *Kidney Warriors*, and also for themselves. Health literacy underpinned by Ganma and clinical yarning is a two-way process, that involves taking the time to build relationships and getting to know each other, finding out what each other knows, and co-designing a responsive care plan going forward. It is the coming together of different forms of knowledge, and providing time, space and the right environment to enable this knowledge to swirl together to create new knowledge. Clinical outreach and clinical placement occurring at Kanggawodli Hostel, in a community setting where *Kidney Warriors* felt safe, supported and respected was key to this learning. Dental hygienist students were able to experience what it felt like to be in a new environment, as a minority group. They learned to sit and wait until community members came to them. They felt well supported by the dental hygienist facilitators/educators, as identified in the post clinical placement survey, and were able to learn new skills, in ways they could not have in the classroom, or a mainstream clinical setting. The students were also able to learn how to work in interdisciplinary teams, and see for themselves the advantages of holistic care, moving

Table 4 A new framework for kidney health – oral health cultural safety education

	Dental hygienist training 2 year Vocational Course			**End of dental hygienist training**	**Experienced dental hygienist / facilitators**	
Levels of skill acquisition [34, 35]	**Novice**	**Advanced beginner**	**Competent**		**Proficient**	**Expert**
Levels of clinical safety (in oral health care)	Learning basic skills	Practicing basic skills with supervision	Applying knowledge and skills under supervision		Applying knowledge and skills in practice	Expert, independent practice
Students' and experienced professionals' learning	Tell me what to do and I will do it	Principles based on experiences, begin to be formulated to guide actions	Gains perspective from planning own actions based on conscious, abstract and analytical thinking		Learns from experiences what to expect in certain situations and how to modify plans	Reflexivity no longer relies on principles, rules or guidelines to connect situations and determine actions. Can operate in increasingly complex situations
Cultural safety journey	**Cultural awareness**		**Cultural sensitivity** (rather than cultural competency)		**Increasing cultural humility and cultural safety, which is a life long journey** **Decolonsing clinical practice and education** ➡	
Level of cultural safety (in oral health/kidney health care)	Learning basic skills		Practicing and applying knowledge and skills under supervision		Actively co-designing responses and strategies with Aboriginal colleagues and *Kidney Warriors*	
Kidney health—oral health-working group activities	Cultural awareness and cultural safety training	Interprofessional day at TAFE SA	Clinical placement / yarning sessions at Kanggawodli hostel		Strategic discussions in clinical and education	Affirmative action
Involvement of Aboriginal *Kidney Warriors*	AKction *Kidney Warriors* - sharing perspectives and lived experiences with students. Are heard and respected as experts of their own health priorities, lives and needs		Aboriginal residents involved in two- way oral health /cultural knowledge sharing with students		Actively involved in decolonising co-design through the AKction project and the *kidney care-oral health working group*	
Students' and experienced professionals' learning	Becoming aware that there are more than one cultures		Perceiving different care needs, and that action is required to meet these care needs		Awareness of impact of self, others, health system and socio-political /historical/colonisation context on patient experiences and care. Takes action to meet patient priorities within complex health systems, i.e. cultural determinants of health	

through both clinical [39, 40] and cultural safety [15] skills acquisition.

Next steps

The *working group* are continuing to collaborate and expand and embed the kidney health-oral health program. The dental hygienist clinical placement has moved from a pilot project to an embedded placement, with plans to extend so that second year dental hygienist students can attend at least twice to consolidate their learning. Discussions have recommended with the dental school to explore options for dental students to also have community based clinical placements with *Kidney Warriors*.

A successful Australian Dental Health Foundation grant application will fund increased education opportunities, consumables and a portable light for screening. There are plans to bring in a sessional dentist and provide onsite dental care at Kanggawodli Hostel, to complement other wrap around primary health care provided. The long-term plan is to set up an outreach dental clinic at Kanggawodli, taking services to people, rather than trying to get people transported to unfamiliar services in unfamiliar sites. Kanggawodli provides a culturally safe setting and a comfortable place for people to connect with other Aboriginal people while waiting to see a dentist. There is another Aboriginal hostel next door, within easy walking distance.

Limitations

As with all research projects, this project has a range of limitations as well as strengths. This work has taken place alongside the *working groups*' usual roles, with no additional designated funding or resources. A recent successful application for additional funding will enable more support and an expansion of activities. There is also a dedicated emphasis on moving this from a pilot study to a sustained and embedded program. This research took place in a specific location and specific context, and so may not be immediately transferable to other settings and community groups. However, the underlying concepts of culturally safety and decolonising co-design in clinical care and education are transferable. This project did not involve formal evaluation by *Kidney Warriors*, but will be included and written into future activities. Sadly, the loss of one of our *Kidney Warrior* colleagues and friend meant that her key insights were included in the draft, but not the final version of this article.

The student pilot survey was a small initial survey rather than a more extensive evaluation survey. This will be extended as the program moves from a pilot to a more sustainable and resourced program. Similarly, the specific leaning outcomes for students are still in the process of being developed. This is an emerging collaboration, as is the overall AKction project, and emerging results will further inform this space. A key strength of this collaborative embedded participatory action research approach is that there have been immediate positive impacts for community members, students and oral health and kidney health professionals. This counters the research findings knowledge translation gap, and also ensures that research involving First Nations Peoples is meaningful, and responsive to their needs and priorities.

Conclusion

This project has collaboratively identified and responded to gaps in oral health care with and for *Kidney Warriors*—First Nations Peoples living with kidney disease. A working group comprising *Kidney Warriors*, kidney health and oral health care professionals and educators, an Aboriginal hostel manager and public health researchers co-designed a responsive decolonising participatory action research approach. This approach, based on relational networks, First Nations methodologies, inter-professional collaboration and joint decision making, was effective in increasing access to oral health information, screening and referral for First Nations Peoples. Co-designing, piloting and establishing a new cultural safety education program and clinical placement for dental hygienists and informing the development of outreach dental services in the near future is the next step in decolonising oral care with and for First Nations *Kidney Warriors*.

Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s12903-024-04617-8.

Supplementary Material 1.

Acknowledgements

This research was undertaken on the unceded lands of the Kaurna people of South Australia. We acknowledge and thank all Aboriginal and Torres Strait Islander Peoples who were involved in this research as chief investigator, co researchers and participants. We respectfully use the terms Aboriginal and First Nations Peoples throughout this paper, as preferred by co-researchers and participants. We dedicate this paper to Nari Sinclar, a strong and impactful Kidney Warrior who contributed significantly to collaborations and this paper, who sadly passed away recently. Nari and her First Nations family have asked that we continue to use her name in honour of her work as a Kidney Warrior. We thank Alyssa Cormick from the AKction team for utilising her skills in co-creating the visual story map with the working group. We also thank Liz Rix who read a near final version of this paper and offered editing, referencing and cultural safety conceptual advice.

Authors' contributions

Authorship contribution to the manuscript. J.K.,M.S.,K.C. wrote the main manuscript, in discussion with K.O.,K.T.,N.S.,S.R. and W.A. All authors reviewed the manuscript. Kidney Warrior N.S passed away before the final version was complete. Authorship contribution to the study—Author information JK is a German, British, Welsh woman who grew up on Ngarrindjeri Kangaroo Island,

mother of two daughters, and a health services research nurse researcher who co-leads the AKction project and the kidney health-oral health working group. JK works in collaboration with First Nations and Non-First Nations peoples to decolonise and improve health care and education access and experiences. She helped to initiate AKction and the working group in response to First Nations community concerns and gaps in care. KO is a Kaurna, Narungga & Ngarrindjeri woman, mother of five and Mutha (nanna) of two boys and a girl. She is a Kidney Warrior with lived experience of kidney disease, peritoneal dialysis, haemodialysis, kidney transplantation and being a carer of her son on his kidney disease journey. KO uses her personal and family experiences and knowledge of kidney disease to advocate for and support others on their journey. She is Chief Investigator and Reference Team member of AKction, the National Community Engagement Coordinator and National Indigenous Kidney Transplantation Taskforce. KO was one of the Kidney Warriors who raised oral health concerns, and working as part of AKction and the Working Group to co-design strategies. MS is a Scottish, Irish and Danish woman who grew up in Mid North of SA, Ngadjuri Nation, mother of two sons, and dental hygienist, educator, mentor, networker and advocate who has worked in special care dentistry, homelessness, University of Adelaide, TAFE SA. MS is chair of the special care dentistry special interest group and TAFE course advisory panel. She holds a OAM and Red Cross Humanitarian Partnerships Award. MS utilised her extensive networks and experience in special needs dentistry to co- lead the working group activities. KC is a Italian and German woman who grew up in North of Adelaide on Kaurna country, mother of two sons and dental hygienist and senior lecturer at TAFE SA. KC is on the Australian Dental Council Accreditation Committee and South Australian Oral Health Plan Monitoring Group. KC initiated and led the involvement of TAFE SA and students in the working group activities. KT is a Welsh Irish woman,mother of three, who works as a renal nurse consultant—Aboriginal health alongside KO and SR. KT supports Kidney Warriors and their families to access and understand dialysis and renal care and kidney transplantation workup. KT was involved in setting up the clinical dialysis and has an important health professional role in providing cultural safety and decolonising education for renal staff. NS was a Ngarrindjeri and Yorta Yorta woman, mother and auntyAunty, with extensive lived experience of kidney disease, dialysis, transplantation co-comorbidities, health care access and mobility access challenges. She was co-founder of the AKction 1 Reference Group and Chief Investigator and Reference team member of AKction 2. NS was a keen advocate for improvements in transport, accommodation, financial assistance and improved care delivery, particularly for rural and remote renal patients. She successfully lobbied politicians, attended parliament and conducted radio, television and newspaper interviews. NS was a Kidney Warrior who helped identify oral health and transport concerns, and was actively involved in all working group activities including co-teaching cultural safety to students and supporting the clinical placement activities as a community advisory group member at Kanggawodli. SR is a Gooniyandi woman from the Kimberley and a renal Aboriginal Health Practitioner. SR has a vital role in supporting Aboriginal people commencing dialysis and kidney transplantation work up. She works based in a tertiary hospital and Kanggawodli hostel, and has a strong advocacy, cultural safety and health information role. SR was actively involved in supporting education, health literacy, referral and clinical placement activities as part of the project. WA is a Malak Malak man from Daly River region in the Northern Territory, working on Kaurna country, who works for the SA Department of Health, Northern Adelaide Local Health Network, Watto Purrunna, Aboriginal Health Division and is the Accommodation and Administrative Services Manager at Kanggawodli. WA previously worked as a Senior Aboriginal Consultant with Housing SA and held varying roles within the government sector over 29 years, and was instrumental in the development and support of the dialysis chairs project and working group activities at Kanggawodli, and cultural safety education at TAFE SA.

Funding
Funding was provided by NHMRC Ideas Grant 2004389 for the AKction research project. Palmolive Colgate Company provided sponsorship for catering the staff and student cultural safety education event.

Availability of data and materials
Data is provided within the manuscript or supplementary information files. The corresponding author can be contacted for further information.

Declarations

Ethics approval and consent to participate
Ethics approval for the AKction project was provided by the Aboriginal Health Research Ethics Committee (#04–18-796), the University of Adelaide (ID:33394) and Central Adelaide Local Health Network (HREC/19/CALHN/45). Indigenous Governance through all stages of the research was provided by members of the AKction Reference Team.
Informed consent was obtained from all of the participants. Oral Hygienist students were informed about the research project and the opportunity for them to participate in a pre and post clinical placement survey. The survey preamble sent to each oral health is provided as a supplementary file.

Consent for publication
No individual participant has been identified in the details or images within this manuscript. Authors of this paper have described their research activities in detail and be individually identifiable. Each author has approved the final version of this paper.

Competing interests
The authors declare no competing interests.

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Received: 21 December 2023 Accepted: 16 July 2024
Published online: 30 July 2024

References

1. Terare M, Rawsthorne M. Country is yarning to me: worldview, health and well-being amongst Australian First Nations People. Br J Soc Work. 2019;50(3):944–60.
2. Bessarab D. Changing How and What We Do: The Significance of Embedding Aboriginal and Torres Strait Islander Ways of Knowing, Being, and Doing in Social Work Education and Practice. Aust Soc Work. 2015;68(1):1–4.
3. Australian Bureau of Statistics. Estimates of Aboriginal and Torres Strait Islander Australians https://www.abs.gov.au/statistics/people/aboriginal-and-torres-strait-islander-peoples/estimates-aboriginal-and-torres-strait-islander-australians/30-june-2021: Australian Government 2023
4. Bourke C, Truong M, Jones Y, Hunyor J, Lawton P. Addressing racism to improve healthcare outcomes for Aboriginal and Torres Strait Islander people : a case study in kidney care: Deeble Perspectives Brief 9. Australian Healthcare and Hospitals Association (AHHA). 2020.
5. Darwin L, Vervoort S, Vollert E, Blustein S. Intergenerational trauma and mental health. Catalogue number IMH 18, Australian Institute of Health and Welfare, Australian Government. 2023.
6. Cass A, Cunningham J, Wang Z, Hoy W. Regional variation in the incidence of end-stage renal disease in Indigenous Australians. Med J Aust. 2001;175(1):24–7.
7. Australian and New Zealand Dialysis and Transplant Registry. ANZDATA 45th Annual Report 2021 (Data to 2021). Adelaide (AUST): ANZDATA; 2022.
8. Kelly J, Dent P, Owen K, Schwartzkopff K, O'Donnell K. Cultural Bias Indigenous Kidney Care and Kidney Transplantation Report. Adelaide (AUST): The Lowitja Institute; 2021.
9. Australian Institute of Health and Welfare. Indigenous health and wellbeing. Canberra: AIHW; 2022.
10. Hughes JT, Cundale K, Owen KJ, McDonald SP. The National Indigenous Kidney Transplantation Taskforce: changing systems to achieve equitable access to kidney transplantation. Med J Aust. 2023;219(8):356–7.

11. Garrard E, McDonald S. In: Improving access to and outcomes of kidney transplantation for Aboriginal and Torres Strait Islander People in Australia: performance report. Adelaide: TSANZ; 2019. 15 December 2023.
12. Sethi S, Poirier BF, Hedges J, Dodd Z, Larkins P, Zbierski C, et al. Maximizing Oral Health Outcomes of Aboriginal and Torres Strait Islander People With End-stage Kidney Disease Through Culturally Secure Partnerships: Protocol for a Mixed Methods Study. JMIR Res Protoc. 2022;11(12):e39685-e.
13 Australian Institute of Health Welfare. Oral health and dental care in Australia. Canberra: AIHW; 2023.
14. Schmalz G, Patschan S, Patschan D, Ziebolz D. Oral health-related quality of life in adult patients with end-stage kidney diseases undergoing renal replacement therapy – a systematic review. BMC Nephrol. 2020;21(1):154.
15. Taylor K, Guerin P. Health care and Indigenous Australians: Cultural safety in practice. NSW: Bloomsbury Publishing; 2019.
16. Lin I, Flanagan W, Green C, Lowell A, Coffin J, Bessarab D. Clinical yarning education: development and pilot evaluation of an education program to improve clinical communication in Aboriginal health care - participant, and health manager perspectives. BMC Med Educ. 2023;23(1):908.
17. Cass A, Lowell A, Christie M, Snelling PL, Flack M, Marrnganyin B, et al. Sharing the true stories: improving communication between Aboriginal patients and healthcare workers. JAMA, J Am Med Assoc. 2002;176(10):466–70.
18. Patel J, Durey A, Hearn L, Slack-Smith L. Oral health interventions in Australian Aboriginal communities: a review of the literature. Aust Dent J. 2017;62(3):283–94.
19 Best O, Fredericks B, Bryce Q. Yatdjuligin : Aboriginal and Torres Strait Islander nursing and midwifery care. 2nd ed. Cambridge: United Kingdom. Cambridge University Press; 2018.
20. Ramsden I. Cultural Safety and Nursing Education in Aoteroa and Te Waipounamu. Wellington: Victoria University; 2002.
21. Rix E, Doran F, Wrigley B, Rotumah D. Decolonisation for health: A lifelong process of unlearning for Australian white nurse educators. Nurs Inq. 2024;31(2):e12616. https://doi.org/10.1111/nin.12616.
22. Bateman S, Arnold-Chamney M, Jesudason S, Lester R, McDonald S, O'Donnell K, et al. Real Ways of Working Together: co-creating meaningful Aboriginal community consultations to advance kidney care. Aust N Z J Public Health. 2022;46(5):614–21.
23. Shearing T, Sivak L, Mejia G, Clinch N, O'Donnell K, Sinclair N, et al. A pilot place-based renal dialysis model of care responding to Aboriginal and Torres Strait Islander priorities in South Australia. Aust N Z J Public Health. 2023;47(6): 100107.
24. Kennedy M, Maddox R, Booth K, Maidment S, Chamberlain C, Bessarab D. Decolonising qualitative research with respectful, reciprocal, and responsible research practice: a narrative review of the application of Yarning method in qualitative Aboriginal and Torres Strait Islander health research. Int J Equit Health. 2022;21(1):134.
25. Büyüm AM, Kenney C, Koris A, Mkumba L, Raveendran Y. Decolonising global health: if not now, when? BMJ Glob Health. 2020;5(8):e003394.
26. Kelly J. Moving Forward Together in Aboriginal Women's Health: A Participatory Action Research Exploring Knowledge Sharing, Working Together and Addressing issues Collaboratively in Urban Primary Health Care Settings. Adelaide: Flinders University; 2008.
27. Stringer ET. Action Research. Thousand Oaks, CA, USA: SAGE Publications Inc. US; 2007.
28. Ungunmerr M. Dadirri: Listening to One Another. In: Hendricks J, Hefferan G, editors. A spirituality of Catholic Aborigines and the Struggle for Justice. Brisbane: Catholic Archdiocese of Brisbane; 1993. p. 34–7.
29. West R, Stewart L, Foster K, Usher K. Through a Critical Lens: Indigenist Research and the Dadirri Method. Qual Health Res. 2012;22(11):1582–90.
30. Yunggirringa D, Garnggulkpuy J. Yolngu Participatory Action Research. Moving Forwards Together; Action Learning and Action Research,;Taoundi College, Port Adelaide. ALARA; 2007.
31. Pyrch T, Castillo M. The Sights and Sounds of Indigenous Knowledge. In: Reason P, Bradbury H, editors. Handbook of Action Research: Participative Inquiry and Practice. London (UK): Sage; 2001. p. 379–85.
32. Durey A, McAullay D, Gibson B, Slack-Smith L. Aboriginal Health Worker perceptions of oral health: a qualitative study in Perth, Western Australia. Int J Equit Health. 2016;15(1):4.
33. Lin I, Green C, Bessarab D. "Yarn with me": applying clinical yarning to improve clinician-patient communication in Aboriginal health care. Aust J Prim Health. 2016;22(5):377–82.
34. Bradshaw C, Atkinson S, Doody O. Employing a qualitative description approach in health care research. Glob Qual Nurs Res. 2017;4:2333393617742282-.
35. Rix E, Rotumah D. Healing Mainstream Health: Building Understanding and Respect for Indigenous Knowledges. In: rawley J, Russell G, Sherwood J, editors. Cultural Competence and the Higher Education Sector: Australian Perspectives, Policies and Practice. 2. Singapore: Springer; 2020.
36. Taylor MJ, McNicholas C, Nicolay C, Darzi A, Bell D, Reed JE. Systematic review of the application of the plan–do–study–act method to improve quality in healthcare. BMJ Qual Saf. 2014;23(4):290–8.
37. Bainbridge R, Tsey K, McCalman J, Kinchin I, Saunders V, Watkin Lui F, et al. No one's discussing the elephant in the room: contemplating questions of research impact and benefit in Aboriginal and Torres Strait Islander Australian health research. BMC Public Health. 2015;15(1):696.
38. Kelly J, Wilden C, Chamney M, Martin G, Herman K, Russell C. Improving cultural and clinical competency and safety of renal nurse education. Ren Soc Australas J. 2016;12(3):106–12.
39. Dreyfus SE. The five-stage model of adult skill acquisition. Bull Sci Technol Soc. 2004;24(3):177–81.
40. Benner P. Using the Dreyfus model of skill acquisition to describe and interpret skill acquisition and clinical judgment in nursing practice and education. Bull Sci Technol Soc. 2004;24(3):188–99.
41. Lokugamage AU, Rix E, Fleming T, Khetan T, Meredith A, Hastie CR. Translating Cultural Safety to the UK. J Med Ethics. 2023;49(4):244–51.

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