



A Qualitative Analysis of the Accessibility and Connection to Traditional Food for Aboriginal Chronic Maintenance Hemodialysis Patients

Beau Cubillo,¹ Julia McCartan,¹ Christine West,² and Julie Brimblecombe^{1,3}

¹Faculty of Medicine, Nursing and Health Sciences, Monash University, Notting Hill, Victoria, Australia; ²Northern Territory Department of Health Nightcliff Renal Unit, Nightcliff, Northern Territory, Australia; and ³Menzies School of Health Research, Casuarina, Northern Territory, Australia

ABSTRACT

Background: Due to the lack of resources in remote Aboriginal communities within the Northern Territory of Australia, Aboriginal people requiring chronic maintenance hemodialysis often must relocate from their home communities to Darwin city permanently to receive ongoing care. This phenomenon can cause distressing isolation from important traditional food, land, and family.

Objective: The aim was to identify the relation to traditional food from an Aboriginal perspective and the enablers and barriers to accessing traditional food post-relocation from remote regions of the Northern Territory, Australia, to the urban city of Darwin.

Methods: This was a qualitative study design with a total of 12 Aboriginal participants (4 males, 8 females) receiving ongoing hemodialysis at the Nightcliff Renal Unit. Participants had all relocated from a remote region to Darwin. Interviews were conducted between July and September 2018 in Darwin, Australia. Data interpretation was conducted by an Aboriginal researcher and co-authors with a combined 30 y of experience conducting research with Aboriginal people in a health context. Data analysis comprised an inductive thematic analysis approach with an indigenist knowledge interpretation lens to construct, reaffirm, and protect Indigenous views.

Results: Traditional food was an important part of participants' identity and strongly connected to social, emotional, spiritual and physical health, and well-being. Access to traditional food post-relocation is associated with enablers and barriers including mobility, local knowledge, social support networks, commercial access, and economics.

Conclusions: Dialysis patients who are dislocated from remote Aboriginal communities to Darwin experience clear disruption to traditional food access, consumption, availability, and knowledge dissemination to the younger generations. *Curr Dev Nutr* 2020;4:nzaa036.

Keywords: traditional food, Aboriginal, Indigenous, chronic kidney disease, qualitative, nutrition

Copyright © The Author(s) 2020. This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited. For commercial re-use, please contact journals.permissions@oup.com

Manuscript received July 28, 2019. Initial review completed December 16, 2019. Revision accepted March 9, 2020. Published online March 19, 2020.

This study received no specific funding and was conducted by a Bachelor of Nutrition (honors) student (BC) as part of his honor's year research towards their final year thesis at Monash University.

Author disclosures: The authors report no conflicts of interest.

Address correspondence to BC (e-mail: beau.cubillo1@monash.edu).

The publication of this paper was supported by the Shakopee Mdewakanton Sioux Community, through a gift to the University of Minnesota from its Seeds of Native Health campaign.

Introduction

Aboriginal Peoples since the beginning of creation have cared for, adapted, lived, and developed systems and practices to utilize land and sea resources including plants and animals, which are still used in the 21st century for basic human needs such as clothing, medicine, and food (1, 2). The Aboriginal Peoples who occupy the continent of Australia have a diverse way of life and complex social and kinship structures that also define people's relationship to their country (3). Country, to Aboriginal Australians, signifies a place that holds important cultural and spiritual importance. It connects individuals to places through their ancestors, including the land, ocean, waterways, and sky, and is important for identity (4). Over the course of time, Aboriginal Peoples of Australia have accessed and consumed traditional foods, which are a part of the culture, spirituality, and traditional lore of the Ab-

original people's society (5). The knowledge of country and the traditional food accessed have been passed from one generation to the next through stories, dance, music, and various forms of art (6). This interwoven relationship between the Aboriginal people and the waterways, ocean, land, plants, animals, moon, and stars holds a unique meaning to each individual and Peoples group around Australia. The links between traditional food, country, and health is consistently important for all Aboriginal people's identity and socialization (4, 7, 8). It has been well documented that, since settler colonization of Australia by the British Empire, the traditional custodians of Australia, the Aboriginal and Torres Strait Islander Peoples, have experienced separation from country and family as well as resistance towards continuing cultural and spiritual practices (4). British settlement also saw the introduction of the industrialized food supply, which has contributed to a rapid transition in food intake for Aboriginal people to more readily available foods (9).

Despite the destruction, heartache, and pain that came with settler colonization, Aboriginal Peoples of Australia have shown resilience and adaptation. In today's period of Aboriginal culture and way of life, traditional food and country are still accessed and revered, further highlighting the importance of traditional food and the dynamic nature of culture. Despite adjustment in hunting and gathering techniques to accommodate the introduction of foreign technology and materials such as cars, guns, boats, and nylon fishing equipment, the underlying significance of traditional food access and consumption has not changed (10). A study conducted in 5 remote communities of Australia reported that 89% of participants had accessed traditional food within 2 wk of the survey, thus highlighting the importance of traditional food for the livelihoods of Aboriginal Peoples in remote Australia (11).

Aboriginal health and well-being frameworks in Australia describe access to country for Aboriginal people as a health determinant (4, 12, 13). Due to inadequate resourcing, people living with chronic conditions in remote communities are often forced to relocate to urban cities to receive ongoing treatment. This is particularly the case with kidney disease in the Northern Territory of Australia. It is acknowledged that social determinants, such as lack of housing, health facilities, and employment, are all contributing to this growing burden of health and social inequity for Aboriginal Australians (14).

The process of relocating from traditional country disconnects people from not only support networks, country, and culture but also from traditional food sources. In 2017, an Aboriginal and Torres Strait Islander dialysis symposium revealed that the journey to Darwin for remote chronic kidney disease (CKD) patients is “lonely,” “distressing,” “isolating,” and “disconnecting from family and country” (15). There is currently little academic literature available analyzing the disconnection from traditional food and the social and emotional impact of this on Aboriginal people who relocate to receive ongoing chronic maintenance hemodialysis. The aim of this study is to understand Aboriginal hemodialysis maintenance patients' perspectives on the importance and meaning of traditional food after experiencing the phenomena of relocating. In order to effect policy and practice for improved health and well-being, it is imperative that the importance of traditional food, connection to country, and the effect such relationships have on the social and emotional well-being of an Aboriginal person is more widely understood and acknowledged.

Methods

Study design

A hermeneutic phenomenological approach was utilized in this study (16, 17). This form of qualitative research supports participants to share their narrative through collecting rich verbal data through the use of semi-structured interviews (18). While this approach largely sits within a Western paradigm, the lead researcher, an Aboriginal person who is an accepted member of the Larrakia Nation who are the traditional custodians of the Darwin region, applied an overarching indigenist lens, which is essential to construct and preserve Indigenous knowledge and empower Indigenous voices through the collection, analysis, interpretation, and presentation of the data (19, 20). First, the study was designed so the researcher could position themselves as an accepted Aboriginal member of the community with the responsibility to facilitate

a safe communication channel to share narrative, this is to ensure the researcher collecting sensitive cultural data is trusted (21). Second, as cultural practices and beliefs can vary across Aboriginal peoples, it was imperative that the lead researcher apply critical reflection of his own practice and interactions in immersing themselves into the people group, to minimize their internal bias assumptions (21, 22). Third, in data analysis and interpretation, the lead researcher ensured that the knowledge and experiences of the participants remained as a positive construction of Indigenous knowledge in the context it was described by the individual, which is an important strength of this study design (19, 21).

Context and setting

The Northern Territory is the third largest state/territory of Australia and has an area mass of 1.421 million km² and, according to the Australian Government area classification, all of the Northern Territory aside from the capital Darwin City is classified as remote or very remote (23, 24). Geographical size, the isolation of communities paired with a relatively low population of ~229,000 people (25), and a disproportionate disease burden to the rest of Australia mean that funding and support is often not adequate in remote communities of the Northern Territory. In 2016, the Aboriginal population of the Northern Territory was 58,248, with 23% of this population living in remote regions and 54% living in very remote regions (25). There are 72 Aboriginal communities that the Northern Territory government provides services for and there are a further 500 homelands where Aboriginal people reside (26). The site location for this study was the Nightcliff Renal Unit located in Darwin city, which is the largest dialysis center in the Northern Territory, catering for ≤60 dialysis sessions per day from Monday to Saturday. Each patient receives ~3 sessions/wk, with each dialysis session lasting 4–5 h, varying between individuals. In July 2018, the Nightcliff Renal Unit had 118 regular renal dialysis patients, of whom 106 (90%) were Aboriginal or Torres Strait Islander and 31 (29%) were male and 75 (71%) were female. Eleven (10%) were local Darwin urban residents and 94 (90%) had relocated from remote or very remote regions of the Northern Territory. In the study period, June to September 2018, 94 participants met the criteria for the study, as follows: being of Aboriginal descent and having experienced the phenomena of interest, which is relocating from a remote Aboriginal community to Darwin to the Nightcliff Renal Unit for chronic maintenance hemodialysis. All genders and ages were eligible. During the period of the study the Nightcliff Renal Unit was serviced by 2 renal dietitians, who, aside from undertaking clinical dietetics work, were also involved in community engagement and social activities, such as traditional food-cooking activities. These dietitians and Aboriginal liaison staff had reported to the clinical nurse manager that their Aboriginal and Torres Strait Islander clients had requested access to traditional food. Consequently, discussion with the senior author (JB) at Monash University led to the initiation of the study to be undertaken by an Aboriginal honor-year student (BC) at the Nutrition, Dietetics, and Food Department at Monash University. The lead researcher (BC) who conducted the interviews also had pre-existing relationships with staff who assisted study implementation.

Recruitment

A flyer and poster were used to promote the study within the Nightcliff Renal Unit and to introduce the lead researcher. The study was also

promoted by the lead researcher at the “Bush Tucker Day,” a social and cultural event run by the dietitians and Aboriginal liaison officer. This also offered the opportunity for the lead researcher to build rapport with the Aboriginal hemodialysis patients. Once interest for the study was generated, the researcher and dietitian approached and screened patients who were eligible to participate in the study. An ethics requirement was that a member of staff (a dietitian or Aboriginal liaison officer) needed to be on site while interviews were taking place. A second condition related to the English proficiency of eligible participants. Where participant interest was shown, the researcher and staff member talked through a project information sheet, which included information about the study aim, purpose, how the data would be used, and confidentiality assurance. If participants decided to take part, the researcher organized a time to undertake interviews. All participants provided written consent with a witness present.

Data collection

The data for this study were collected via semi-structured interviews. All interviews were conducted at the Nightcliff Renal Unit. A private consulting room was available for discretion; however, participants could determine where their interview would be conducted. The interview guide was primarily developed by the lead researcher, a local Larrakia Aboriginal person, using a combination of their own social and cultural insider’s knowledge of the population for the style of language and wording of the questions. The researcher formally drew on hermeneutic phenomenological methodology to design interview questions that would focus on extracting “how” and “why” traditional foods were important for Aboriginal people at the renal unit (18, 27).

Data analysis

Interviews were transcribed verbatim, and key elements were identified inductively and coded by the lead researcher. The key themes of “access,” “consumption,” “availability,” and “knowledge” were identified as the parent headings that were used to extract relevant data from the transcripts to create individual 1-page summaries, which were verified with interviewees. Co-authors (JM and JB) viewed each of the transcripts independently and similarly coded key elements, which were compared with those captured by the lead researcher. An important strength within the data analysis for this study was that the lead researcher applied an indigenist lens to the data-extraction phase to ensure that culturally appropriate knowledge was presented in the correct context and not misinterpreted. The steps the researcher took included the following: familiarization of data through immersion and generation of codes identifying themes that were used to describe the experience of the phenomena and answer the research questions.

Ethics

Ethics for this study was approved by the Human Research Ethics Committee (HREC reference number: 2018-3077) of the Northern Territory Department of Health and Menzies School of Health Research. Those who participated in the study were reimbursed for their time with a 50-Australian-dollar shopping voucher. This particular voucher was selected because no alcohol or tobacco could be purchased, which was a requirement of the ethics application.

Results

Fifteen eligible participants were approached by the dietitians and researcher and invited to participate in the study. Additionally, 2 participants approached the researcher independently and expressed their willingness to participate. Overall, 12 participants consented, 4 men and 8 women. Six were interviewed individually and 6 in pairs. Interviews ranged from 16 to 40 min (average: 27 min). Participants had relocated to Darwin from 8 different, very remote communities, ranging 80 km to 970 km in distance from Darwin city via road or sea travel. While in Darwin the majority of participants resided in hostels that cater to Aboriginal and Torres Strait Islander people. Other accommodation services were a Christian Outreach hostel, which is not limited to Aboriginal and Torres Strait Islander people, or private accommodation.

The meaning of traditional food

Overall, participants deeply engaged in the opportunity to share their experiences of traditional food with the lead researcher. The dialogue triggered strong and mixed emotions from the happiness and meaning that traditional food provided to the loss and pain that participants felt being away from their country and food ways. Experiences of hunting, gathering, sharing, and spending time with family were all characterized with traditional food. Memories of these experiences evoked rich verbal discourse where people described how “delightful,” “connected,” and “fulfilled” traditional food made them feel. One participant came prepared for the interview with drawings of traditional foods that she then described. She referred to how the images represented her spiritual belonging to country as well as the cultural significance of traditional foods and how they are linked to the seasons. Another participant wished to be interviewed over multiple sessions in order to best capture his experience of and with traditional food. The participant wanted more time to think about the question as English was not his primary language and he needed time to think of an appropriate response in English. All 12 participants clearly described in their own unique way the importance of traditional food for an Aboriginal person.

Social and emotional impact of traditional food for patients

“Yep I feel good; you know we (Aboriginal Peoples) are a part of it (traditional foods) the food and the gathering of the food with the family” (participant 2 in response to how traditional foods make them feel).

Most participants associated their experience of traditional food with the geographical region they had connections to. Almost all participants vividly recalled stories and experiences with traditional food prior to their relocation to Darwin. Often, these stories were of experiences from many years before and, in some cases, decades ago, but the memories had been treasured and stored with great detail in the memory. The stories and experiences of gathering traditional foods were described by more than one participant as a “special time.” One participant expressed their intimate connection with traditional food. “It makes you feel good because you can communicate well because we know them [traditional foods] very well” (participant 1).

It was also evident from the experiences and stories shared that the meaning of traditional food was culturally and spiritually diverse and individually connected to various factors such as language, country, and

family. The interpretation of the term “traditional food” was thus individualized to the person and contextualized to their experience, and ultimately determined their perception of what traditional food is and its meaning to them. Participant 1 responded that traditional food was important as it made her feel “energized” and gave her “strong blood and body.” Participant 4 reflected on “going out fishing” to feel the “fresh air” and fishing with “friends”; and participant 11 responded, “hunting you know makes you healthy and strong.”

Nearly all participants expressed the loss they felt in being disconnected from their traditional food.

Lead Researcher: “Do you miss all them bush foods?”

Participant 6: “Yes all the time and I stare at [the] blank wall, I do canvas painting, I am an artist myself and sometimes I paint fish or turtle or something about bush tucker on my canvas, and I paint it when I sit back there at Naganingbar [hostel], I got canvas.”

The loss expressed by some participants went far deeper than missing the taste and enjoyment of accessing traditional food. One participant felt that she was no longer able to pass the knowledge she had of traditional food on to the younger ones in the same way she would if she were in her country. Participant 5, a former schoolteacher who was well connected to the youth of her community, stated that the younger generation were not interested in traditional food. This combined with the fact that “there are no old people left,” referring to the loss of traditional food knowledge when the older community members die, was a worrying notion for this participant. The disconnection from country and traditional food and its impact on social and emotional well-being was described differently by each participant. However, each of the participants described that they “miss” the foods they accessed and consumed throughout their life. This description made it difficult to distinguish whether people were saddened by lack of access to traditional food and country while residing in Darwin or whether they were saddened by the rapidly changing ways in society and were nostalgic of the past. Each participant had stories about how they managed to find a way to cope with being off country, away from family, their traditional food, and their livelihoods.

Enablers to accessing traditional food

All 12 participants referred to accessing some types of traditional food while in Darwin. The most commonly referenced method of obtaining traditional food was via social-sharing networks such as friends and family, as illustrated in the following 2 quotes: “...doesn’t matter if we get bush foods we always share” (participant 3) and “...yeah sometimes my husband brings me fish...” (participant 1). When traditional food was from remote regions it was described as being transported to Darwin by the person who gathered the food. One participant referred to a different social-sharing network from that of friends and family, which included the other residents and caretaker at their accommodation: “we do have people from different areas—sometimes they come, they bring the magpie goose or long time ago [the hostel], caretaker used to go out and shoot kangaroo” (participant 4). Participants also described accessing traditional food via commercial sources such as shopping centers, wholesalers, and food markets: “...yeah you know, some shops they sell kangaroo tail” (participant 9). Another participant (participant 8) who accessed commercial kangaroo tail in Darwin said he ac-

cessed it “yeah all the time” at the “Malak shops” when asked how often. Both of these participants were from Central Australian communities >800km from Darwin City. As neither had traditional food supplied via social networks, they sourced it themselves through commercial suppliers. Some participants said that some traditional foods could be easily accessed at large commercial supermarkets, particularly seafood such as crabs and prawns. One participant referred to the convenience of precooked prawns: “...just eat it, cooked one, already cooked” (participant 6).

Some participants from communities with a similar ecosystem and climate to Darwin accessed traditional food by gathering and/or fishing at locations around Darwin. It was also evident that mobility was a factor in the type of traditional food-related activity that participants engaged in as more mobile participants gathered and fished more frequently and accessed fishing locations further from their accommodation locations compared with those who were less mobile.

Researcher: “Since you been in Darwin do you still get that bush food?”

Participant 3: “I always go down to what’s that place called? East arm” [fishing location]

Researcher: “Yeah, I know East arm”

Participant 3: “I always go there for shell and go fishing too”

Access to traditional food was also possible for some participants when they returned home to visit country for a short interval between dialysis episodes. Some participants were able to return home for extended periods because their communities had a small number of dialysis machines. During those times they described easily accessing traditional food. Most participants also mentioned the annual Nightcliff Renal Unit “Bush Tucker” day as an access point for traditional foods. Most of these participants stated it “felt good” to engage in this day.

Barriers to accessing traditional food

Accessing traditional food post-relocation from a remote community to Darwin presented unique challenges for participants. These included health and mobility implications, transport, economic circumstances, local knowledge, and the convenience of fast foods. Physical illness and mobility were highlighted by the participants as a persisting problem for accessing traditional food. Participant 5 stated that accessing traditional foods required her to “travel a long way” and that she is “too sick and old for that” nowadays. A number of social and economic barriers that restricted access to traditional food were identified by participants. Transport was a commonly cited barrier. One participant stated that her social group had no access to a vehicle to get traditional food: “...All the girls that stay here (hostel) in Darwin [have] got no car” (participant 5). Another participant explained that he did not have transport and sometimes was so desperate for traditional food that he caught a taxi to go to a private seller’s house to purchase magpie goose: “...I went there to buy some goose with [a] taxi” (participant 9). Economic circumstances were a barrier restricting access to traditional food—for example, the money required to purchase or travel to destinations to access traditional food. Participant 9 explained that, when friends get together, they often cook traditional food but then added, “when they [i.e., friends and him] have money.”

Lack of local knowledge was also referred to as a barrier by participants from places geographically distant from Darwin. These participants found it difficult to know where to access traditional food as well as where to purchase traditional food commercially. The desert Peoples (i.e., those from Central Australian communities) often mentioned that while they had opportunity to access seafood from the Darwin area, they were not familiar with these foods; this was a reoccurring theme during interviews. Seafood, including crab, mussels, oysters, prawns, fish and octopus, is the most commercially abundant and easily accessed traditional food in Darwin, most likely due to the demand from the greater population. One participant from a Central Australian community stated that she liked it [seafood] but also stated “my sister taken me to get mud crab, long bum, fish, turtle, seafood, you know I am not used to it” (participant 7). When asked about her knowledge of accessing traditional food in Darwin by the researcher, her response was: “We don’t know, we only know the desert one.” Some participants from Central Australian communities did mention, however, that the seafood was only accessible “if we go with them [local Darwin people] hunting, they can show us where it is” (participant 7).

The convenience of fast foods compared with the resources, time, and effort of accessing and preparing traditional foods influenced some participants’ food behavior. Accessing traditional food, especially when hunted and gathered, is a strenuous activity that requires good health and mobility. When asked about accessing traditional food, 1 participant responded by saying: “Umm too hard, I just get Kentucky Fried Chicken (KFC) you know” (participant 12). Another participant explained to the researcher that to access traditional food she would have to walk long distances and now that she is on dialysis it’s easier for her to eat store-bought food. She also attributed these foods to the high prevalence of diabetes now experienced by Aboriginal people: “Like today we eat the food from the shop, and it’s got sugar and everything in it you know that’s why we get diabetes and end up on the machine [dialysis] ya know, and in those days [the past], we used to walk for our food you know” (participant 5).

Discussion

This study provides unique individual perspectives on the social and emotional connection to traditional food from 12 Aboriginal people in the Northern Territory of Australia. It identifies the enablers and barriers that affect access to traditional food post-relocation from remote communities to Darwin city for Aboriginal people requiring chronic maintenance hemodialysis. Despite Indigenous Peoples around the world having unique cultures, languages, and customs, there are distinct similarities, particularly regarding caring for country as well as connection to traditional food. This includes the link between country and traditional food and how these are linked with people’s social and emotional well-being and health (8, 28, 29). A study conducted in Canada highlights the importance of traditional foods for the health and well-being of Aboriginal Canadians and stated that “Traditional foods, due to their connectivity with cultural practices and traditional knowledge, impact not only physical health, but also emotional, mental, and spiritual health” (30). Another example is that of the Māori people of Aotearoa (New Zealand) who also share similar views of country and traditional food. The traditional Kai (food) for Māori Peoples signifies

that cultural connectiveness is important for people’s health and well-being (31). The meaning of traditional food for Indigenous Peoples as described in these studies reflects a similar connection with cultural practices and traditional knowledge that was shared by the participants of this study. Such a finding is not surprising due to numerous studies describing this connection among Indigenous peoples (2, 30, 32). Novel to this study, however, is the deep insight offered from participants experiencing the phenomena of relocating from a remote context to an urban context, the loss associated with this and consequent impact on social and emotional well-being, and the identification of enablers and barriers to accessing traditional food. Despite a disruption to the participants’ preferred food supply, an important finding was the resilience and adaptation shown to navigate and develop coping mechanisms to access traditional food. To date, to the best of our knowledge, there has been little to no published Australian peer-reviewed literature on how the phenomena described have affected the social and emotional connection to traditional food and resulting social and emotional well-being.

Enablers and barriers to access

While there were commonalities in the meanings that people attached to traditional foods, as described in their interviews, differences in the barriers and enablers experienced by participants in accessing traditional food in a foreign urban environment were also present. These differences were largely contextual and related to local area knowledge, access to family support, economics, and language differences. Throughout this study, “Aboriginal Peoples” is the term used to describe peoples from 8 different remote Aboriginal communities and, among them, distinctly different languages and different traditions and cultures. The enablers and barriers that affect access to traditional food reflect this diversity, which, in turn, reflects diversity in geographical location. Two of the 8 communities are separated by a distance of 1,063 km stretching from the subtropical wetlands to the dry desert Spinifex Country and vary in flora and fauna and accessibility to Darwin. This explains why a participant from a subtropical coastal community perceived lack of transport to a fishing location in Darwin as a barrier to accessing traditional food, while an inland community member perceived their lack of local area (Darwin) traditional food knowledge as a barrier, thus highlighting the individuality of barriers.

A further critical finding of this study relates to the enablers to accessing traditional food and coping mechanisms. A study conducted in Canada highlighted that “physical health” was a direct factor influencing access to traditional food in an urban environment (30). Considering this, it is therefore surprising that 11 participants in this study were still able to access traditional food post-relocation to Darwin, despite all participants living with chronic health conditions that affect physical ability in different ways. The most highlighted enablers to accessing traditional food were family and friends’ networks as well as commercial supply. This study reaffirms the concept that accessing traditional food is a holistic experience even when away from country, comprising aspects such as hunting and gathering with family and friends, preparation with traditional cooking methods, and sharing food and stories together. All study participants highlighted that it was critical to still access traditional food when away from their own country. An unexpected finding, however, was the coping mechanisms some participants put in place to connect them spiritually to traditional food when a physical connection was too difficult. One of the participants, for example,

mentioned that when she felt upset due to a lack of access to traditional food, they paint pictures of traditional food important to them. This further highlights the diversity among Aboriginal people in their experience with traditional food and the inner need to connect to these foods (33). As stated by Poroch et al. (33), the link between traditional food, spirituality, and health for Indigenous people needs further research.

Barriers to accessing traditional food for the Aboriginal patients from remote communities attending the Nightcliff Renal Unit include a combination of social, economic, and health factors. While not within the scope of this study to assess people's financial circumstances, it was reported by participants that they often only accessed traditional foods commercially if money was available. The affordability of commercial access to traditional food for Aboriginal people needs to be considered in further research, as there is a growing trend for traditional foods to be sold commercially at high cost and in high-end restaurants (34). Although each participant required long-term chronic maintenance hemodialysis and some had coexisting health conditions that prevented them from sourcing traditional food, this was not always a limiting factor. Participants were also concerned that younger generations may not acquire cultural knowledge about traditional foods because of the disruption to elders' health, which is consistent with the literature (34).

Strengths and limitations of the study

The qualitative phenomenology study design is an important strength as it enabled a framework for the collection of rich data that described the social and emotional connection of participants with traditional food. This included flexibility in the study design to enable each individual participant to express their thoughts and beliefs about how the phenomenon of relocating had affected traditional food access. Each voice was individually analyzed to capture the experience of the participant; this enabled unique stories and individual meanings behind traditional food to be expressed. A unique strength of this study was the identity of the lead researcher being a local Aboriginal community member, which allowed for an insider's cultural perspective with the participants, as well as having expert knowledge of traditional foods of the area. Therefore, rapport was built in a timely manner and the interviewees were able to describe personal thoughts and feelings with comfort, which led to the collection of rich data. A strength of the research method was that all transcripts were cross-checked with participants, and then coding and interpretation were cross-checked with the co-authors. In conjunction with this process, the lead researcher wrote a reflective journal entry after each participant interview experience. The reflective journals are an important process for an indigenist lens as it kept the lead researcher grounded within the worldview of Aboriginal people and enabled clear reflection to help articulate the thoughts, beliefs, and actions of an indigenist lens.

Limitations of this study included the language barrier between the researcher and participants as English was not the primary language for any of the participants. Due to funding and time constraints interpreters were not a viable option. Another limitation was the withdrawal of 5 participants after organizing a time to conduct interviews. Reasons for withdrawal included the following: participants going back to their remote community for a 1-month holiday, thus exceeding the interview timeline (2 participants); not feeling well (2 participants); and rescheduling of usual dialysis times (1 participant). The 12 included

participants, however, represent the diversity in locations in the Northern Territory that people have relocated from and views from different genders.

Implications

The findings of this study make clear that providing opportunities for access, availability, and consumption to traditional food is important for Aboriginal hemodialysis patients as it connects people to a culturally sensitive food supply. This view is summarized by Myrna Cunningham, the 2013 chairperson of the United Nations permanent forum on Indigenous issues, that "Indigenous Peoples' right to food is inseparable from their rights to land, territories, resources, culture and self-determination..." (35). However, in relation to this study scenario, the possibility of full-scale renal dialysis services in Aboriginal communities could only occur through the appropriate funding, resources, and trained staff. It is critical that appropriate funding be committed to the prevention of chronic disease for future generations to come. Protection of access to traditional foods is an important aspect of this prevention.

Conclusions

Traditional foods are important for the social, emotional health, and well-being of Aboriginal people in the Northern Territory of Australia who receive chronic maintenance hemodialysis and for the greater global Indigenous community. It is clear that the journey from remote Aboriginal communities to Darwin for these patients is disruptive to traditional food access, consumption, availability, and the knowledge dissemination to the younger generations. However, despite the health limitations of the Aboriginal hemodialysis patients affected by this phenomenon, people are still able to access traditional food. The indigenist lens has also demonstrated that Aboriginal hemodialysis patients still maintain cultural connectiveness and express the importance of traditional food. Future research should focus on ways to increase access and availability to traditional food for Aboriginal patients undergoing hemodialysis.

Acknowledgments

We acknowledge Mrs Camilla Feeney, a senior dietitian with the Northern Territory Government Department of Health, who played an important role in supporting the research student at the Nightcliff Renal Unit. We also acknowledge Dr Jaquelyne Hughes for aiding the student researcher to articulate the findings as well as provide structure and general direction to the construction of this article. It is also most important to acknowledge the participants who generously gave their time and shared personal stories. The project was collaboratively designed and developed by academic staff at Monash University senior author JB as well as JM and student BC in conjunction with CW, a staff member at Northern Territory Government Department of Health, Australia. The authors' responsibilities were as follows—BC: performed research, with CW also involved in recruitment of participants and oversight of interviews as well as providing essential materials; BC and JB: data analysis and the writing of the manuscript; BC: had primary responsibility for the final manuscript; and all authors: read and approved the final manuscript.

References

- Altyerre-ipenhe M, Douglas J, Walsh F. Aboriginal people, bush foods knowledge and products from Central Australia: ethical guidelines for commercial bush food research, industry and enterprises. DKCRC Report 71. Alice Springs (Australia): Ninti One Limited; 2011.
- Bussey C. Food security and traditional foods in remote Aboriginal communities: a review of the literature. *Aust Health Bull* 2013;13(2):1–10.
- Waterworth P, Pescud M, Braham R, Dimmock J, Rosenberg M. Factors influencing the health behaviour of indigenous Australians: perspectives from support people. *PLoS One* 2015;10(11):e0142323.
- Kingsley J, Townsend M, Henderson-Wilson C, Bolam B. Developing an exploratory framework linking Australian Aboriginal peoples' connection to country and concepts of wellbeing. *Int J Environ Res Public Health* 2013;10(2):678–98.
- Kerwin DW. When we become people with a history. *Int J Inclusive Educ* 2011;15(2):249–61.
- O'Keefe E. Towards an understanding of the significance of 'the dreamtime' to Aboriginal people. *Aborig Child Sch* 1984;12(4):50–5.
- Hampton R. Indigenous Australians and health: the wombat in the room. Toomns M, editor. South Melbourne (Australia): Oxford University Press; 2013.
- Ganesharajah C. Indigenous health and wellbeing: the importance of country. Canberra (Australia): Native Title Research Unit; 2009.
- Lee A. The transition of Australian Aboriginal diet and nutritional health: metabolic consequences of changing dietary patterns. *World Rev Nutr Diet* 1996;79:1–52.
- Australian Government. Recognition of Aboriginal Customary Laws. Canberra ACT (Australia): Australian Government; 1986 [732]. Retrieved 2019 May 20 [Internet]. Available from: <https://www.alrc.gov.au/publication/recognition-of-aboriginal-customary-laws-alrc-report-31/>.
- Ferguson M, Brown C, Georga C, Miles E, Wilson A, Brimblecombe J. Traditional food availability and consumption in remote Aboriginal communities in the Northern Territory, Australia. *Aust N Z J Public Health* 2017;41(3):294–8.
- Davy C, Kite E, Sivak L, Brown A, Ahmat T, Brahim G, Dowling A, Jacobson S, Kelly T, Kemp K, et al. Towards the development of a wellbeing model for aboriginal and Torres Strait Islander peoples living with chronic disease. *BMC Health Serv Res* 2017;17(1):659.
- Kingsley J, Munro-Harrison E, Jenkins A, Thorpe A. "Here we are part of a living culture": understanding the cultural determinants of health in Aboriginal gathering places in Victoria, Australia. *Health Place* 2018; ISSN 1353-8292;54:210–20.
- Zhao Y, You J, Wright J, Guthridge S, Lee A. Health inequity in the Northern Territory, Australia. *Int J Equity Health* 2013;12(79):1–8.
- Hughes J, Dembski L, Kerrigan V, Majoni S, Lawton P, Cass A. Indigenous patient voices gathering perspectives—finding solutions for chronic and end stage kidney disease, 2017 Symposium Report, Darwin, Northern Territory. *Nephrology* 2018;23(S1):1–13.doi:10.1111/nep.13233
- McCaffery G, Raffin-Bouchal S, Moules N. Hermeneutics as research approach: a reappraisal. *Int J Qual Methods* 2012;11(3):214–29
- Laverty S. Hermeneutic phenomenology and phenomenology: a comparison of historical and methodological considerations. *Int J Qual Methods* 2003;2(3):21–35
- Creswel J, Poth C. Qualitative inquiry and research design: choosing among five approaches. International Student Edition, 4th ed. London (UK): SAGE Publications; 2017.
- 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.
- Rigney L. Internationalization of an indigenous anticolonial cultural critique of research methodologies: a guide to indigenist research methodology and its principles. *Wicazo Sa Review* 1999;14(2).
- Doyle K, Cleary M, Blanchard D, Hungerford C. The Yerin Dilly Bag model of indigenist health research. *Qual Health Res* 2017;27(9):1288–301.
- Coghlan D, Brydon-Miller M. The Sage encyclopedia of action research. London (UK): SAGE Publications Ltd; 2014.
- Area of Australia-States and Territories. Canberra ACT (Australia): Australian Government; 2004. Retrieved 2019 April 4 [Internet]. Available from: <https://www.ga.gov.au/scientific-topics/national-location-information/dimensions/area-of-australia-states-and-territories>.
- Map of Australia showing areas of varying geographic remoteness. Australian Government of Information of Families; 2019. Retrieved 2019 Feb 1 [Internet]. Available from: <https://aifs.gov.au/publications/families-regional-rural-and-remote-australia/figure1>.
- Australian Bureau of Statistics. 2016 Census quickstats. Canberra (Australia): Australian Government; 2016. Retrieved 2019 April 4 [Internet]. Available from: https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/7?opendocument.
- Northern Territory Government. Services to remote communities and homelands: Northern Territory Government. 2019. Retrieved 2019 April 4 [Internet]. Available from: <https://nt.gov.au/community/local-councils-remote-communities-and-homelands/services-to-remote-communities-and-homelands>.
- Kafle N. Hermeneutic phenomenological research method simplified. *Bodhi: An Interdisciplinary Journal* 2013;5(1):181–200.
- Hunter LM, Logan J, Goulet JG, Barton S. Aboriginal healing: regaining balance and culture. *J Transcult Nurs* 2006;17(1):13–22.
- Schultz R, Cairney S. Caring for country and the health of Aboriginal and Torres Strait Islander Australians. *Med J Aust* 2017;207(1):8–10.
- Elliott B, Jayatilaka D, Brown C, Varley L, Corbett KK. "We are not being heard": Aboriginal perspectives on traditional foods access and food security. *J Environ Public Health* 2012;2012:130945.
- Moeke-Pickering T, Heitia M, Heitia S, Karapu R, Cote-Meek S. Understanding Māori food security and food sovereignty issues in Whakatāne. *MAI J* 2015;4(1):30–42.
- Brimblecombe J, Maypilama E, Colles S, Scarlett M, Dhurrkay JG, Ritchie J, O'Dea K. Factors influencing food choice in an Australian Aboriginal community. *Qual Health Res* 2014;24(3):387–400.
- Poroch N, Arabena K, Tongs J, Larkin S, Fisher J, Henderson G. Spirituality and Aboriginal people's social and emotional wellbeing: a review. 2009;11.
- Skinner K, Pratley E, Burnett K. Eating in the city: a review of the literature on food insecurity and indigenous people living in urban spaces. *Societies* 2016;6(2).
- Kuhnlein HV, Erasmus B, Spigelski D. Indigenous peoples' food systems & well-being: interventions & policies for healthy communities. Food and Agriculture Organization of the United Nations. Burlingame (BA): McGill University Centre for Indigenous Peoples' Nutrition Environment; 2013.