

TRANSMISSION OF TRADITIONAL FOOD KNOWLEDGE: EXPERIENCES AND PERSPECTIVES OF YOUNG ADULTS

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Abstract: Nutritional interventions have been included in government policy to improve the health of Aboriginal and Torres Strait Islander peoples, whose social and emotional wellbeing (SEWB) is closely linked to culture. Given the connection of traditional food and food practices to culture, Country and community, promoting traditional food and food practices through community-led interventions may be a solution to improving health and nutrition interventions. However, a greater understanding of traditional knowledge transmission and acquisition is required. Currently there is a limited body of research on transmission of traditional food knowledge regarding young adults. The aim of this study was to gather the perspectives, attitudes and concerns of young adults regarding traditional food and food knowledge. This was achieved through in-depth, semi-structured interviews with young adults aged 25 to 35 living on Yuin land. Results showed that traditional food knowledge was important for identity and SEWB by facilitating connection to family, community, culture and Country. Young adults

had a strong desire to gain more traditional food knowledge and to transmit this knowledge to subsequent generations. However, this was limited by disconnection from knowledge-bearers and difficulties balancing knowledge acquisition with work and home responsibilities in their mainly Western cultural context. Hence, interventions promoting traditional food knowledge amongst young adults have the potential to improve SEWB. However, as a pilot study, saturation was not reached, and larger-scale studies are required to support the results and conclusions.

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Introduction

Improving nutrition, particularly through increasing access to nutritious foods, is one of the key strategies proposed in the National Aboriginal and Torres Strait Islander health plan, to close the gap in life expectancy between Aboriginal and Torres Strait Islander peoples (Indigenous) and non-Indigenous Australians (Department of Health and Ageing, 2013; Department of the Prime Minister and Cabinet, 2019). The plan takes a ‘whole-of-life’ approach in addressing intergenerational effects of health inequalities. This involves targeted programs to improve health at each life stage including maternity, childhood, adolescence, adulthood and old age (Department of Health and Ageing, 2013).

This is not surprising when the Indigenous concept of health emphasises the requirement for harmonised and balanced interrelations between ‘spiritual, environmental, ideological, political, social, economic, mental and physical’ factors for social and emotional wellbeing (SEWB)(Sutherland, S., and Adams, M. 2019). All these aspects also form an individual’s cultural identity (Swan and Rapheal, 1995:19). Gee et al. (2014) synthesised this

into applicable domains of SEWB (figure 1). In the centre of the diagram is the sense of self, or identity, which is inextricably linked to family and community. It is important to realise that Indigenous culture is variable and dependent on the country and kinship group/s to which an individual belongs. These will dictate their spiritual beliefs, obligations and responsibilities (Dudgeon *et al.*, 2014).

The importance of culture is expressed in social identity and identity theories; where social identity is an individual's recognition they belong to a social group/s via similarities in aspects such as attitudes, beliefs, values and behavioural norms; and identity is recognition of one's role within society and incorporating the associated meanings and expectations into oneself (Stets and Burke, 2000). In the context of a predetermined social structure, where individuals are born with a certain cultural heritage, this means trying to derive identity from the social group they belong to.

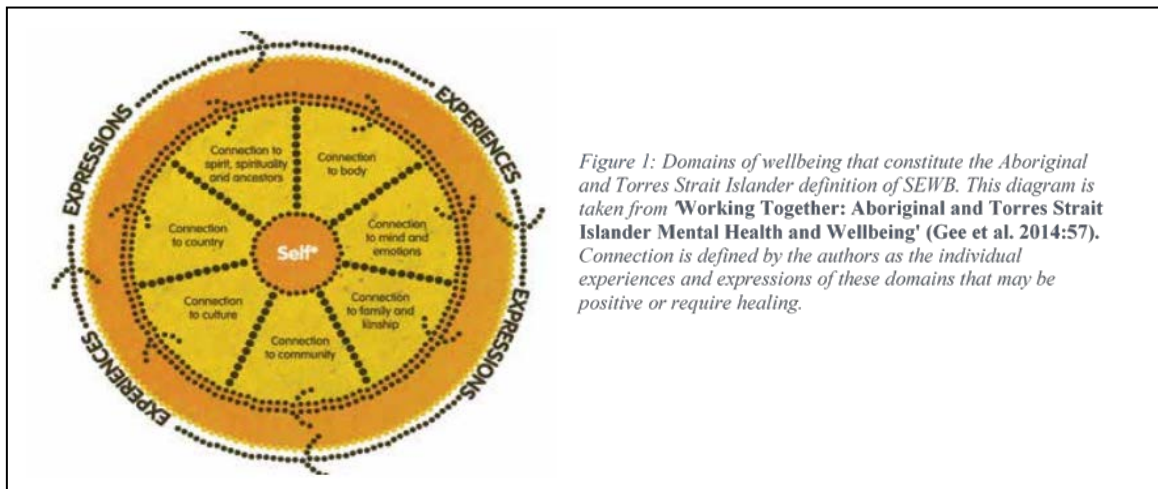


Figure 1: Domains of wellbeing that constitute the Aboriginal and Torres Strait Islander definition of SEWB. This diagram is taken from 'Working Together: Aboriginal and Torres Strait Islander Mental Health and Wellbeing' (Gee et al. 2014:57). Connection is defined by the authors as the individual experiences and expressions of these domains that may be positive or require healing

Disconnection from this culture can cause poor SEWB as individuals cannot adequately situate themselves in their context and develop a strong sense of identity (Haslam *et al.*, 2009; Larkins, 2010; Sutherland, S., and Adams, M. 2019). Therefore, re-connection to culture is

conceptualised as being central to ‘healing’, and it’s importance has been recognised in the Indigenous Australian framework of health (Commonwealth of Australia, 2017): ‘True healing for our people is not just about knowing “Aboriginal” or “Torres Strait Islander” culture generically. It is important to identify where you belong: to know your mob, your stories and your songlines, and where you fit in the environment’ (Larkins, 2010:11)

Intergenerational trauma, coupled with tensions of the ‘cultural interface’ between Indigenous and ‘mainstream’ Western ideologies, on a background of rapid change (social, economic, technological, environmental) and structural disadvantage, make young Indigenous people particularly vulnerable to poor SEWB (Nakata, 2002; Australian Institute of Health and Welfare, 2018). Amongst Aboriginal youth, connection to culture has been positively associated with SEWB, and shown to increase resilience, self-esteem, satisfaction and positive mental health, and reduce risk-taking behaviours (Fleming and Ledogar, 2008; Dockery, 2010; Houkamau and Sibley, 2011; Shepherd *et al.*, 2017; Bourke *et al.*, 2018).

Traditional knowledge is a core component of culture (Kuhnlein and Burlingame, 2013). Definitions of ‘traditional knowledge’ are both diverse and multifactorial. It is not only defined by the nature of the knowledge itself, but also by the way in which it exists and is transmitted within its cultural context. It is viewed as having been constructed from first-hand interactions and experiences of a community with their local environment, accumulated over a long period of time, and across generations (Berkes, 1993; Stevenson, 1998; Egeland *et al.*, 2013).

Transmission reflects an oral tradition, that is, dialogue/language, rituals, stories and artistic expressions such as crafts and clothing. It includes observation and trial and error (Ohmagari and Berkes, 1997; Douglas, 2015). Personal experiences, personal interpretations of the environment and spirituality are viewed as driving the organic transfer of knowledge in whichever mode is considered appropriate by the individual (Battiste, 2016). Thus, knowledge

is constantly evolving as it is passed between generations. Therefore, what may not have been considered Traditional Knowledge at one point in time could now be considered such and vice versa. This idea is explored further in this paper.

Traditional knowledge itself is considered to be largely of a practical nature. Its purpose lies in facilitating the survival of the community such that harmony with nature and ecosystems within their surroundings. Also, knowledge is specific to a group or territory (Convention of Biological Diversity, no date; Kimberley Land Council Research Ethics and Access Committee and Kimberley Land Council Aboriginal Corporation, no date). This includes laws, social organisation, ethics and spiritual beliefs (Berkes, 1993).

In the context of food and nutrition, engagement with traditional foods and food practices has the potential to improve SEWB as they are embedded in connection to country, kinship ties, community and spirituality (Thompson and Gifford, 2000). Colonisation weakened or destroyed these connections, through displacement from traditional lands, community and/or family fragmentation (Egeland and Harrison, 2013). With reduced opportunities to use and transmit traditional food knowledge, subsequent generations became distanced (Foley, 2005). This 'invisible cultural loss' is a major concern for Elders and other knowledge-bearers in these communities (Turner *et al.*, 2008; Douglas, 2015).

It is important to note that the quantity and content of Traditional Knowledge has been shown to be variable amongst the members of a given community, and is dependent on their respective 'gender, age, social status, intellectual capability and profession (hunter, spiritual leader, healer etc.)' (Brockman, Masuzumi and Augustine, 1997:n.p.). Therefore, bearers of this Traditional Knowledge are central to its transmission. In Aboriginal communities, those who are recognised as custodians and imparters of Traditional Knowledge are known as 'Elders' (Dudgeon *et al.*, 2014). Thus, ageing and untimely passing of these knowledge-bearers

has added additional difficulty and complexity to the intergenerational transmission and revitalisation of traditional food knowledge (Haines *et al.*, 2017).

In addition to its benefits for SEWB, traditional food production (Pascoe, B. 2014) has also been associated with increased physical health, both due to the high nutrient density of the foods and the associated increase in physical activity associated with food practices (National Health and Medical Research Council, 2000). The shift to a nutrient-poor, energy dense Westernised diet post-colonisation contributed to declines in health (National Health and Medical Research Council, 2000). It has been estimated that 19% of the disease burden is because of poor diet (National Health and Medical Research Council, 2013). While a complete return to a traditional diet is not viable, research shows inclusion of 30%-40% traditional foods in diets can lower incidence of chronic disease (O'Dea *et al.*, 1991; Blanchet *et al.*, 2000; Gwynn *et al.*, 2019).

Thus far, successful Indigenous-specific nutrition interventions in Australia have integrated nutrition education with lifestyle interventions, and addressed broader structural issues, such as poverty and access (Closing the Gap Clearinghouse, 2012). Some of the strategies employed included nutrition and diabetes education, promotion of traditional cooking methods, cooking classes, physical activity sessions, increased healthcare access and changes to food store policies and management (Closing the Gap Clearinghouse, 2012; Schembri *et al.*, 2016). Evaluations of successful programs noted improvements in physical health such as reductions in BMI, waist circumference and other coronary heart disease risk factors (Schembri *et al.*, 2016).

Similarly, it is important to note that community ownership and leadership of interventions were integral to their success (Closing the Gap Clearinghouse, 2012; Schembri *et al.*, 2016). Culturally responsive programs, such as those that used oral tradition for knowledge sharing and transmission and/or recognised the importance of kinship ties and

obligations, were well received and more likely to be successful (Vallesi *et al.*, 2018). This remained true for the few adolescent nutrition interventions in Canada which incorporated traditional knowledge transmission and food collection practices relevant to each community (Antonio, Chung-Do and Braun, 2015).

Insufficient evaluations and sustainability are known limitations of current Australian interventions. In the most recent published systematic review (Gwynn *et al.*, 2019), the mean age of participants in evaluation cohorts of end-of-program studies was 40-51 years and the perspectives and responses of young people were barely examined. Furthermore, few interventions continued for more than 5 years. It has been suggested this may be due to a lack of cultural appropriateness and/or a lack of sustained community engagement (Schembri *et al.*, 2016; Gwynn *et al.*, 2019). Evidence for long-term outcomes of interventions is also limited (Closing the Gap Clearinghouse, 2012).

Nevertheless, evidence suggests that traditional food systems underpin cultural identity and nutritional health, thereby forming ideal targets for improving Indigenous health. Goode (1989) describes six stages in the provision and consumption of food: “production, access, acquisition, preparation, presentation, and ingestion”. Kuhnlein and Receveur (1996) put this in the context of traditional food systems, indicating that the traditional knowledge linked to these processes apply to all culturally accepted foods that are available from local natural resources.

Kwik (2008) argues for the inclusion of cultural education and social transmission in this process, as this is critical for cultural survival over time. The next generation of food providers are thus able to utilise and maintain traditional food knowledge and practices. For this to occur, an exchange between willing knowledge bearers and knowledge recipients, both of whom will have individual contextual motivators and pressures, is required. This cannot be achieved through formal education, which may remove knowledge from its context and

overlook the deeper meanings behind it (Nakata, 2002). It is also argued that lack of acknowledgement of the importance of experiential learning and the centrality of oral traditions in traditional knowledge transmission is problematic (Douglas, 2015).

There is little Australian literature that adequately explores this process of traditional knowledge transmission and acquisition in Indigenous communities. Moreover, less is known about the role, experiences and perspectives of young adults or adolescents in the process (Douglas, 2015). Rather, discourse focuses on the content of the knowledge known or the relation of culture to ‘problem areas’ in health, social relationships and juvenile justice (Wyn and Harris, 2004; Douglas, 2015). There is an essential gap in the knowledge regarding the impact of changing socio-cultural contexts on traditional food knowledge acquisition amongst young people. An understanding of the perspectives of their young people may help communities to improve the effectiveness and sustainability of nutritional programs and enhance general traditional knowledge transmission.

A recent doctoral dissertation examined the acquisition of traditional ecological knowledge amongst youth in Central Australia (Douglas, 2015). Using a mixed-methods design, the author showed that the majority of youth who participated in the study valued their culture and ‘bush’ knowledge for ‘identity needs’, and though they desired learning opportunities, were limited mainly by time pressures (Douglas, 2015). Similar limitations were reported in interviews of Omushkego Cree First Nation youth (Ohmagari and Berkes, 1997). However, it is unknown whether these findings are broadly applicable in the design of nutritional interventions in Australia or internationally.

This study aims to supplement the currently limited body of research on the acquisition of traditional food knowledge, with a focus on perspectives, attitudes and concerns of Yuin young adults. The key research questions that needed to be answered were:

1. What are the experiences and perspectives of young adults regarding traditional foods and food practices in the context of their current diet?
2. What are the perceived drivers and barriers of traditional food knowledge transmission?

Methodological approach

This study was a pilot study conducted as part of a larger project examining the revitalisation of Indigenous Food Traditions and Knowledge (RIFTk) and its links to SEWB

The definition of ‘traditional knowledge’ is complex. The complexity is tied to the differing meanings to different people (Nakata, 2002; Davis and Ruddle, 2010).

In-depth, semi-structured interviews were chosen to enable an informal and interactive conversation, or ‘yarning’ with participants. Yarning has been described as a culturally appropriate method of gathering data in Indigenous research (Bessareb and Ng’andu, 2010). Interviews were conducted one-on-one to enhance this process and to limit the effects of broader social dynamics on participation and responses.

Initiating questions examined demographic information, typical food behaviours, experiences of traditional food and food practices, transmission of this knowledge, importance of food and TFK, and finally, perceived barriers to TFK transmission and use. Initiating questions were followed by probing questions to enhance or extend comprehension of participant perspectives and experiences. It should be noted that with each subsequent interview, interview times increased as did the depth of exploration of participant responses. This was correlated with improvements in, and development of, the LR’s interviewing skills after each interview.

Ethics

Ethics approval for the RITFk project was obtained from the ANU Human Research Ethics Committee (Protocol 2018/104) with an amendment added to allow for interviewing young

adults from the Yuin Nation (See Appendix 1). Research was conducted according to NHMRC and AIATSIS guidelines. Participants gave consent for their real names to be used in this report.

Theoretical Framework

This study used a symbolic interactionist framework. A key underlying assumption of the symbolic interactionist framework that underpinned this study is that individuals interpret and assign meanings to their experiences and actions and that subsequent actions are based on those perceptions and interpretations (Aksan *et al.*, 2009). In-depth interviewing is the method that best enables provision of insights into individuals' interpretations and/or assignment of meaning to their experiences and interactions. This approach was chosen to allow for an examination of the diverse perspectives and experiences of young adults regarding traditional food knowledge and its connections with identity and SEWB. This could provide a background for the design of effective and culturally appropriate health interventions.

Sampling and recruitment

Initially, a purposive sampling approach was employed to satisfy study aims. Inclusion criteria for participants were young Yuin adults aged between 18 and 24 years. As a pilot study, a target of 6 young adults was set. Community coordinators at Katungul Aboriginal Medical Services (at two locations within the Yuin Nation, Batemans Bay and Narooma), assisted with participant recruitment.

Sutherland (LR) an Aboriginal man, made first contact with community coordinators and obtained letters of consent to conduct interviews. Discussion between Sutherland and the community explored the community's concerns and expectations of the study. There was ongoing communication between the lead researcher (LR) and community coordinators via e-mail and phone throughout the study period to gain their trust and acceptance.

However, difficulties in recruitment resulted in the employment of convenience sampling: inclusion criteria were extended to include non-Yuin adults aged up to 35, currently

living on Yuin Country. Research participants were all younger employees of the health services at each location. The definition for young adults was arbitrary. While the lower limit of 18 years is the legally accepted definition of an adult (Government of NSW, 2012), the upper limit is variable. The cut-off at 35 years was set to reflect maximum age limits used in Australian government documents (Australian Bureau of Statistics, 2013)

Difficulty in recruiting participants stemmed primarily from time constraints and geographical distance. The LR was a medical student who conducted the study as part of the requirements for completion of her studies. A combination of delayed ethics approval and difficulty matching schedules of the community and the LR prevented progression of the study until 8-9 months into the allotted timeframe of one year for the project.

Initially, the study aimed to use a participatory action approach which is often used to “equalise power differences, build trust and create a sense of ownership in an effort to bring about social justice and change” (Castleden and Garvin, 2008). Creating a relationship between the researcher and the community to achieve these goals takes time. It requires consistent participation in community activities and liaising with staff and community members about their expectations and perspectives. In the limited time period, it was not possible to build the optimal desired relationship with community members as usually required for this approach. Hence, it was not able to be implemented. Furthermore, the LR’s non-Aboriginal heritage and inexperience in conducting this type of research, may have contributed to the community’s perception and degree of acceptance of the LR which, while positive, did not develop into an extended and deep relationship.

Data Analysis

Content and thematic analyses of participant interviews relied on analysis of verbatim transcripts. A grounded theory approach was used (Corbin and Strauss, 2008). The process of coding and categorisation involved careful examination of each transcript individually and then

collectively, to derive common and divergent themes. This was facilitated through the use of Microsoft Excel. Themes were subsequently further revised with each subsequent interview analysed and questions were adjusted with each subsequent interview, as themes emerged.

Given the limited number of interviews conducted with members of four different language groups and Nations it cannot be argued that saturation was reached. More interviews are necessary to substantiate the themes found within these interviews and to extrapolate beyond the language groups or Nations of the participants in this study. Though unintentional, this variation in language group was also a strength as the conclusions drawn indicate that similar pressures existed among these young adults irrespective of heritage. However, pressures may reflect regional influences, as participants were all from NSW (mainly in and around south-West coast).

Results

Demographic details

Name	Age	Sex	Town	Language group or Nation	Children?
Sean	25	M	Batemans Bay	Gamilaraay	Yes
Laurel-Ann	26	F	Batemans Bay	Dungaree-Wiradjuri	Yes
Victoria	27	F	Narooma	Yuin	No
Julieann	35	F	Narooma	Wiradjuri-Monero	Yes

Table 1: Description of participant characteristics. N.B. All participants preferred to be identified and have real names used in publication”

Current food habits

Across interviews, the most common factors influencing current food habits were family preferences, nutritional concerns, childhood experiences, personal preferences and time constraints. Two main meals were consumed per day, with light snacking in between. Breakfast was the most commonly skipped or disregarded meal. Nevertheless, participants stressed the importance of breakfast for those in their care.

Lunch was typically light and consisted of leftovers, sandwiches or fruit. Snacks, most-often mid-morning, included fruit, cracker and/or biscuits. Dinner was more varied across the week and between participants. However, meat and a wide variety of vegetables such as broccoli, carrots and potato were staples. Traditionally collected seafood was particularly prominent in the diets of Julieann and Victoria. Everyday main meals were Western or from other international cuisines. Weekend meals were viewed as notably different, both in content and atmosphere. Three participants reported Sunday dinners being special; this meal was enjoyed with family. Sunday dinners were usually a ‘roast’:

‘Like it’s a good, chilled out kind of day you know. You’re just with the whole family. We’re all joking, waiting on dinner...I love it’ – **Laurel-Ann**

Participants preferred home cooking. Takeaway foods were a last resort due to time constraints or exhaustion. Choice of takeaway foods were Subway, bakery and restaurant foods. Both locations had limited access to takeaway foods; with most participants viewing this as a ‘good thing’.

All participants were conscious of the nutritional value of their diet, particularly with regards to the inclusion of fruit and vegetables. Health consciousness was derived from working in the health sector or observing effects of poor diet among family or community members. Diet became increasingly important after taking on carer duties: for example, after having children or chronic illness diagnosis in a family member. This often translated into changes to their own diet:

‘I never really have..um knew much about health until I started working here. Um..just built a passion and I then I just...working with people in the community and seeing the long-term effects they’ve had with stuff like that. It’s like oh..I really don’t want to go through that.....Diabetes, heart attacks,

strokes, liver failure. Just like all long-term effects from unhealthy drinking and eating’ – **Sean**

‘I find it weird because my-for myself my-like, I know it's going to sound odd but like my health standard for myself is not as strict as it is for my daughter’
– **Laurel-Ann**

Valuing of Traditional food knowledge

What does ‘traditional’ mean?

There was a clear distinction made between, what Laurel-Ann called, ‘traditional’ and ‘traditional traditional’ foods. The difference in the content of the knowledge reflected two different histories or origins, that is, the pre- and post- colonisation context of these communities. This is not to say that pre-colonisation knowledge did not continue to evolve over this period:

‘So with traditional food for us as in what we've grown up on. If that’s what you’re. Yeah so like (chuckles)...don't quote me on this-what we'd call it like mission food. So like I'm talking your curries like um.. curry sausages, curry mince, everything kinda curry with rice or potato. Um ya know, hot chips and gravy? Like that kind of stuff as well. You know, it was just kind of quick and easy dinner’ – **Laurel-Ann**

‘As an Aboriginal woman and you say traditional foods, I think more or less bush tucker or you know, like um, the traditional animals and stuff that used to be, you know like the kangaroo and all that stuff,...but other than that like traditional, so like here we just mentioned it’s something that you follow on as from what you’ve been given as a child and just followed those recipes on from parents and some of their recipes too’ – **Julieann**

It seemed that ‘pre-colonisation’ knowledge was actively ‘taught’, while ‘post-colonisation’ knowledge was subconsciously learnt from what was commonly practiced by their families on a day-to-day basis. Regardless of the ‘type’ of traditional knowledge, intergenerational sharing and transmission was still central. Thus, the definition of ‘traditional food knowledge’ was dependent on the individual’s upbringing. For example, as the only participant who had reconnected with his community later in life, Sean considered only ‘pre-colonisation’ food knowledge to be traditional. However, for other participants there was evidence of an amalgamation of the two, with ‘pre-colonisation’ knowledge being adapted to the current context. Participants suggested that the two knowledges may not have such clear demarcations:

‘Like some of our family come up from um Brewarrina and out there they have stone fish traps...they’d tell us stories about that and how they would catch fish and how they’ve adapted that to the way they catch fish’ – **Sean**

‘She (dad’s sister) cooks a lot of curries and stuff like that um, you know chicken curries and even um, bimbala curries...she cooks with a lot of that bush tucker foods in her recipes and that’s what she says to me all the time, just you know out have gotta experiment with different tastes’ – **Julieann**

Despite changing foods and food practice, the values embedded in ‘pre-colonisation’ food knowledge, such as kinship, spiritual beliefs and customary laws, remained relevant. A common thread through the interviews was responsibility to the land: that one should only take as much as needed, to allow nature to re-establish itself. This also carried warnings against greed and selfishness. This theme was relevant beyond traditional food collection for some, in that, grocery shopping and food consumption was limited by what was needed, not wanted. Food collection was also conducted in community or family groups, which fostered kinship values. Accordingly, food was a family or community affair for participants, who rarely cooked or

collected foods solely for themselves. Participants were aware of their totem animals and did not consume them:

‘Sitting around talking to my uncles all the time and they would..just explaining like they’d really wait for um...when we were actually doing things and they’d explain what was right and what was wrong. Like explain what I can and can’t do’ - **Sean**

‘I don't know if everyone down this way eats the duck but because it’s our totem we wasn't supposed to be eating it’ – **Victoria**

Identity

A general consensus amongst participants was that culture was important in creating a sense of belonging, and thereby identity. Traditional food and food practices were an expression of culture, and of social identity:

‘I think it's very important that we should always be connected to our traditional foods... Mainly our identity’ - **Victoria**

Belonging could be spiritual or social. In the social sense, traditional food collection and consumption created an opportunity for interactions with family and knowledge-bearers. Furthermore, having the privilege of learning the knowledge was, in itself, an affirmation of their cultural identity. In Sean’s case, initiation into the male ‘stripe’ hierarchy reflected acceptance as a member of the Gamilaraay community with a role to uphold:

‘When we do that kind of stuff together it’s really just bringing our family back together. Cause our family’s been just torn apart from stolen generation. So when we come together we really tell those stories and teach each other. It’s like a really good um belonging feeling’ - **Sean**

In a spiritual sense, traditional food knowledge facilitated connection to country (described below) and to history. Participants were both recipients and transmitters of long-living

knowledge; of 'tradition' that connected the past with the present. Strengthened social and cultural identity were instrumental in defining their place in the world and developing an identity. A strengthened identity translated into SEWB:

'I reckon um..oh I believe in life you gotta know where you come from to know where you're going. Otherwise you're stuck feeling lost all the time and like you don't belong? So like...I definitely felt a lot um more..like what the word? Like really...like I didn't know where I was? I was kinda lost? Like I didn't belong anywhere.' - **Sean**

'big part of that is how our people survived, you know, nutrition, the whole works whole food thing' – **Laurel-Ann**

Connection to country

It was clear that foods and food practices were closely associated with the country or language group participants identified with. Victoria identified as Yuin, a coastal territory, and had the most experiences with seafood, both shellfish (*bimbala* (cockles), abalone, penny winkles, lobster, pipis) and fish (octopus, mullet, flathead). Victoria also spoke about regularly collecting berries and nuts including *wandama* berries, blackberries, cherries ('*have green seeds*') and macadamia nuts; and land-sourced meats such as kangaroo and goanna. While Sean mentioned fish and fishing being traditional, this was based in lakes and rivers, rather than the ocean. He also had more experience of land-based foods:

'Um Well, down here, our traditional foods would have to be just the kangaroos are like mainly um and seafood. Yeah, so I never really grew up on all the berries and stuff like that like the ones in the desert go on. So we mainly live off the ocean. Yep.' – **Victoria**

'Well it kinda depends cause down here, its like. Cause it depends on where you are and where you live. Like I'm from Tamworth and that, so a lot of my

family, our traditional foods are based around the Yura leaves and like Bigabilas [Gamilaraay word for echidna) like echidnas, kangaroo and that. But down here, they're really um. Traditional living and traditional foods are fishing. Abalones and fish. They don't really have..it's really different compared to up home' – **Sean**

While this held true for Victoria and Sean, Laurel-Ann and Julieann were more familiar with coastal foods and food practices despite identifying with inland language groups: Wiradjuri, Monero and Dungaree. A combination of family migration, family 'tradition' and personal preferences, resulted in both participants growing up primarily on the coast. Building on the differing definitions of 'traditional', coastal foods became 'traditional': Julieann reported similar seafoods to Victoria but did not mention any traditional plant foods. Laurel-Ann talked about fishing, and foods such as turtle, lilly-pilly, and other unnamed coastal nuts and berries.

All participants enjoyed living away from highly urbanised areas. This was linked to the 'slower' lifestyle and the vicinity to nature, and in some cases, to traditional foods:

'Yeah, definitely. Like I feel closed off when you're in the city. Don't know what to do. Cause you walk around here a lot. In the small towns, you go out and get your traditional foods where you're not closed off, like you just free and you can breathe' – **Victoria**

Traditional food and physical health

Traditional foods were perceived as being good for physical health. This was a belief based on the simultaneous decline in the physical health of Aboriginal people and the reduced consumption of traditional foods. There was a focus on the nutritional value of the foods themselves rather than the traditional hunter-gatherer lifestyle. Regardless, this was a factor that influenced their consumption of traditional foods:

‘I know yeah definitely the traditional foods that they are good foods and not only do they taste good they're healthy and they're good for you, I mean they're from the land.’ - **Julieann**

‘...It is a big thing in Indigenous communities is, when they stop eating their traditional foods, their health starts to change. Like they're not used to certain foods and all that...Um..I reckon it's pretty important....I think with health, if that's all you diet was I can stick to it. If you was going good, don't change it.

Yeah’ - **Victoria**

Transmission of traditional food knowledge

All participants had experienced traditional foods and food practices prior to the study. This indicated continued transmission. Despite participants not knowing names of some of the foods and specifics of the related food practices, they could recall having experienced them. They recalled aspects of collection and processing to varying degrees. Extent of knowledge was highly dependent on the regularity of use in daily living. That is, the more they used the knowledge, the better they could describe it.

Family

All participants commented on being taught their traditional food knowledge by family members in group or reunion settings. Family members were from different generations: aunties, uncles and grandmothers were frequently mentioned. Although they did not specify, some of these family members may have also been Elders in the community. It is important to note that the use of ‘family’ here, extends beyond the general definition of being ‘blood-related’, and reflects kinship ties. Knowledge acquisition was associated with childhood for most, and became less relevant in adulthood:

‘Just from mum and dad. Growing up as a kid and them taking us out and yeah showing us the ropes. So and I've known how to do it as long as is can

remember, so yeah and going out with the aunties and uncles and yeah because with the Indigenous families, they're really, really close...they tend to go out and do a lot of things like gathering or you know, seafood and all that, they do it all together' – **Julieann**

'Yeah, well, we just got shown like, we'd always go walking and stuff with our grandparents. And yeah, they'd show us. We'd have certain days where..like family reunion type of days? Where we all just go to the beach and they just show us and we have like the cultural things. Yeah, that we have always went to when we was little.' – **Victoria**

Transmission occurred through various media including conversations with knowledge bearers, stories, dance and hands-on experience. Providing a history behind food knowledge was important in generating interest and connection. All participants were motivated to pass their traditional knowledge to their own children or other children in the community in much the same way. Children were important motivators for engagement and knowledge acquisition:

'yeah like my dad still gets out every now and again and eats his pippis and he'll take my kids and you know, that's like me now, I'll take 'em with me, so they will sorta see how it's done and I'm sure that when they're older, they'll carry it on and know, you know, how to do it as well.' – **Julieann**

'So if I, honestly, if I had the time to do it, I would love to teach my daughter what I know. And then I'd also love to learn more to show her...' - **Laurel-Ann**

Gender-specific knowledge transmission

Regardless of the language group/s they identified with, a common theme across all participant responses was related to gender-specific roles in traditional food practices. Men were primarily involved in hunting, whether it be on land or fishing and deep diving in water. Sean described

a three-level hierarchal hunting structure amongst Gamilaraay men that dictated the foods that could be collected. Once an individual was initiated into a certain level, as represented by the number of 'stripes' painted on, they would start their journey in learning the relevant knowledge. For example, at the one stripe level, Sean was restricted to gathering and fishing. Women were involved in gathering practices based on, or close to land:

'Traditionally I think men done the hunt and the gather and the women just done the cooking. The gathering was the women, so I was assuming it would have been oysters and pippis and things like that, you know, the easy ones that you could get to' – **Julieann**

'So, the guys from, like in our family. It's mainly overall but I just want to speak on ours just so. But um hunters and gatherers. So women are the gatherers, the men are the hunters. So they would obviously more or less get the meat. And the women would get like the, the fruit and whatever else that goes with the sides and things like that yeah' – **Laurel-Ann**

As such, gender-specific roles in food collection, meant gender-specific knowledge transmission. While Sean mainly referred to uncles for knowledge transmission, female participants mentioned learning from both male and female knowledge-bearers. Responses indicated there was little food knowledge transmitted exclusively in female lines, at least within this generation. Though they were not specifically taught, female participants could describe male food practices in general terms from what they had observed. While these roles still exist, Julieann notes that they are less distinct in her context, with women also actively participating in fishing:

'Um so I've got two boys and one girl like I don't really teach my daughter much cause that's..a woman's thing. But with my boys I started soon as they could talk' – **Sean**

Barriers to transmission

Transmission of traditional knowledge via an oral tradition requires interactions and connections to knowledge-bearers. Additionally, gendered connection with knowledge-bearers is important for gender-specific knowledge transmission. Without access to appropriate knowledge-bearers, the knowledge is lost to the subsequent generations. Some participants described this effect in the previous generations as a result of the mass trauma and fragmentation of the stolen generations. The knowledge transfer pathway was interrupted. In the current context, fragmentation is still relevant and has intergenerational effects. Sean, who reconnected with his Gamilaraay heritage through finding lost family, described the consequential loss of connection after relocating away from his hometown for work:

‘I definitely think it's to do with your linkage because a lot about our culture's word by mouth, you know, so if they're not communicating, if they're not together anyways, you can't really pass it on’ - **Laurel-Ann**.

‘Like, all my family are like real big. And I guess moving away from, home, coming down here, cause I'm not from here, I don't really know anyone. It kind of broke my connection culturally’ – **Sean**

For Victoria, the significance of traditional practices was in the relationships forged through engaging in them, rather than the practices themselves. Despite her consistent engagement with traditional foods, she felt she ‘grew out of it’ in adulthood. For her, loss of integral family members resulted in a change in the feelings and meaning behind traditional food collection:

‘When..like in our families and stuff it's....you kind of just lose some of that when your Elders passed away. So one's my dad and my Nan, so they're the main little ones we used to go out all the time. I think it's more of a memory

thing. So I just stopped really doing it. Yeah...Like we still do it, but it's not as fun anymore'? – **Victoria**

A break in the chain of transmission reduced intergenerational transfer of traditional food knowledge, whether it be from not having learnt the knowledge or being unable to share it. The latter deals with a potential discomfort with adopting the role of a knowledge-bearer. However, all participants were interested in learning traditional food knowledge as a means of maintaining or enhancing connection to culture:

'so the generation before us. I feel like some of them either don't know knowledge, or they don't remember the knowledge. Some, some that do, don't like to share that as well. Like, and I'm not saying that like in a nasty way at all. I just mean, like, they might be too embarrassed to say, "Hey, I know how to do that". ...But myself, like, I, I know how to dance and things like that but I don't like showing that I do. Because then once I say Yeah, I do, there is heaps of like little people that are like "show me aunty. Show me" and I'm like "urgh" (laughs)' - **Laurel-Ann**

'Like I've never seen a young Koori man not wanna learn about his culture. I've never seen a black person not want learn about their culture.....So I think its just broken culture' – **Sean**

Disconnection from knowledge-bearers was contrasted with the responsibility of young people in forging these connections and seeking the knowledge themselves. Some participants spoke about the changing priorities of their generation and younger generations, with there being a shift towards a fast-paced life lacking connection to the land and environment. They argued that cultural practices and traditional knowledge were perceived as having less immediate applicability:

‘yeah so a lot of the younger ones these days it’s a whole different generation as well and they don’t realise, I think because it’s you know...As generations go on I think they just get worried about other things they don’t think to keep traditional ways going’ – **Julieann**

‘I think people these days are just more into city life. They don’t really get into the like depth of culture. They'd be more into the city and not the country life, like that kind of, yeah. So they're more in like a rush instead of just relaxing and learning about what's around them, if that makes sense’ - **Victoria**

A second effect of this was a lack of familiarity and the resulting apprehension with trying some traditional foods or practices, particularly consumption and collection of animals or insects. Participants either did not want to try the foods or were pushed into trying them and described positive experiences. Participants were more likely to try new foods in childhood than adulthood:

‘I remember as a kid to I always thought it was really yuck, like cause they would cook the fish heads and it would have the eyeballs and everything and they’d cook it up in a big soup...I would not touch it and then I tried it one day and I actually loved it’ - **Julieann**

‘Like if we go to the beach or something, or to the lake, we just sit around and show him what to do. Especially like the real little ones. They don’t really like the tastes at first but yeah. Try to teach them. Yeah.’ - **Victoria**

In particular, work commitments, and the associated time constraints, were identified as being a hinderance to the practice of TFK. This was in two ways: firstly, it reduced the time available to collect traditional foods; secondly, it reduced time available to learn TFK. For Sean, work meant having to move away from his hometown, which was an 11 hour drive away from Bateman’s Bay:

When asked when she gets time to collect traditional foods: ‘Not much. Just on the weekend. Daylight savings was easier cause we used to just go to the beach or something. So that was easier for us. Yeah. But mainly in the afternoon’ –

Victoria

‘And I think it's more of a time thing than it is an availability thing. So, if I actually put more effort into it, then I definitely could’ – **Laurel-Ann**

Since it is not a matter of disinterest, some participants suggested that young people needed to be reminded or have their interest reignited. As such, the process of intergenerational knowledge transfer is dependent on both the knowledge recipients and bearers. Interestingly, the interview process itself was one way to redirect this interest:

‘I reckon I would be if the opportunity arose to them. Like if someone started talking to ‘em about it or made it sound interesting stuff or if they just got that opportunity to get asked to do something.’ - **Victoria**

‘After even sitting with you here today, I will probably go home and rattle his (her father) brain you know, um but yeah because you never really think about it until you sit down or someone mentions it to you and then you think “yeah, I don’t really know that much” you know and it’s something I wanna know’ –

Julieann

Discussion

The overarching aim of this study was to supplement the limited body of knowledge on the experiences and perspectives of Aboriginal young adults regarding acquisition of traditional food knowledge and practices. As a pilot study, the findings are unlikely to represent the views of all Aboriginal young people or even those from the Yuin Nation. While further work in this area is required to inform policy and health strategies, it is the first study, both in Australia and internationally, to explore the significance and barriers to the acquisition of traditional food

knowledge amongst adults aged 25-35 years of age. It could be argued that due to their ambiguity in the age spectrum, being neither young adult nor middle-aged, this age group is more neglected in the existing body of literature.

The importance of food and traditional foods to all participants, indicated that there is scope for improving SEWB through nutritional programs targeting traditional food and food practice. This was supported by the ability of traditional food knowledge to shape identity and facilitate connection to family, community, culture, Country and body (Gee et al., 2014). In this study, these factors acted as drivers of traditional food knowledge transmission for participants, and speak to the second aim of this project: What are the perceived drivers and barriers of traditional food knowledge transmission?

Furthermore, participants expressed their interest in learning more traditional food knowledge relevant to their language group or Nation. As such there are benefits in repeating the study with more participants in the same region who are not members of health organisations. The study could then be extended to other language groups. It may also be informative to conduct interviews with young adults aged 18-24 and compare the responses of the two age cohorts in this population to determine the similarities and differences in their experiences and perceptions of transmission drivers and barriers.

Many of the findings in this study were consistent with those found by Douglas (2015) among youth aged 16-24, indicating similar socio-cultural factors may affect knowledge acquisition in early young adulthood. This was unsurprising considering Douglas's comments on the importance of 'life stages' such as being a student, mother/fatherhood or having Elder status, over actual age. Traditional food knowledge was highly valued, as Douglas states, for their 'Identity needs', bringing participants a sense of social and spiritual belonging. Particularly important, was connection to country, Aboriginal history and their Dreaming or stories.

As stated earlier, there was a strong desire to learn more food knowledge, whether in the present or future, and to transmit this knowledge to subsequent generations. However, young adults were limited by their disconnection from knowledge-bearers and difficulties balancing knowledge acquisition with work and home responsibilities in their mainly Western cultural context. As such, some were unable to engage with traditional foods and food practices to the extent they would have wished. In some ways, having the knowledge was more important to participants than the continued application of the knowledge. A similar struggle, and its influences on health and wellbeing, has been noted internationally in young adults with a bi- or multi-cultural heritage (Cuéllar *et al.*, 1997; Shi and Lu, 2007; Schwartz and Unger, 2010; Yamaguchi *et al.*, 2016).

The barriers and drivers of transmission were relatively clear. Yet, evaluating the experiences and perspectives of young adults regarding traditional foods and food practices in the context of their current diet, was less so. This was largely due to differences in the conceptualisation of 'traditional' by young adults when compared to definitions in existing literature (Berkes, 1993; National Health and Medical Research Council, 2000; Foley, 2005). When asked about their interpretation, two types of 'traditional' food knowledge were described: the pre-colonisation Country-based diet and the post-colonisation 'ration' diet. However, the question arises as to whether these diets embody two distinct streams of knowledge or are viewed as extensions of each other. As stated in the introduction, traditional knowledge is constructed from first-hand interactions and experiences of a community with their local environment, accumulated over a long period of time, and across generations (Berkes, 1993; Stevenson, 1998; Egeland *et al.*, 2013).

The post-colonisation 'traditional' diet reflects a response to rapid environmental, social and cultural changes in Aboriginal history. This knowledge facilitated survival of the population on the available resources and was transmitted to the next generation mostly by oral

tradition. It was a solution to navigating the new cultural interface (Goodall, 2001; Nakata, 2002). Elements of the 'old' traditional diet were incorporated into the 'new'.

Thus, traditional knowledge has also been described as 'living' knowledge": its transmission is not stagnated by documentation, but rather it flows and develops from one generation to the next (Whap, 2001). New experiences were used to validate and evaluate the existing traditional knowledge and were integrated to adapt the traditional knowledge to changing conditions or circumstances. There was no new knowledge or 'discoveries', but an increased awareness and understanding of pre-existing knowledge over time (Smylie et al., 2014). So, traditional knowledge is collectively owned, and must be socially accepted and valued to be maintained. With the small sample size of this study, it was difficult to determine whether this 'new' knowledge was widely socially accepted and whether the opinion of these young adults reflected the opinion of the collective.

Haines et al. (2017) differentiate between types of traditional knowledge: tacit and explicit. Tacit knowledge represents key beliefs and foundations of the given Indigenous culture, and is that which is uncodified, difficult to document and only available to select knowledge bearers. Examples include the notions of kinship, stories, ceremonies and traditional laws. On the other hand, explicit knowledge can be thought of as 'survival tools' or practical information that is widely disseminated and accessed through public activities. Explicit knowledge, such as basket weaving, storytelling and welcome ceremonies, are platforms for communicating tacit knowledge. While traditional practices can be potentially learnt anywhere or from anyone, it is this tacit knowledge transmitted by knowledge-bearers that is key to promoting cultural identity and continuity (Haines *et al.*, 2017).

Based on the classification system discussed by Haines and colleagues, traditional food practices by themselves can be considered explicit knowledge. However, the lessons learnt at each stage of the food acquisition and consumption process is tacit knowledge. The essence of

traditional food knowledge, that is, the tacit knowledge, appeared to be largely maintained. In this regard, young adults all had traditional food knowledge incorporated into in their current diet and food habits. Jackomos (2015:20) argues that “culture adapted and changed with the times, as it had done for thousands of years...[it] remained vibrant, alive and strong”. However, it remains to be seen whether this evolution of knowledge will be maintained in subsequent generations.

Exploration of the experiences and perspectives of young adults regarding traditional food knowledge had an overarching purpose to inform nutrition interventions and policy. The results indicate that interventions promoting traditional food knowledge amongst young adults has the potential to improve SEWB. As such, the results support existing data on the success of community-led programs (Closing the Gap Clearinghouse, 2012; Schembri *et al.*, 2016). The influences on current food choices and methods of knowledge transmission, taken with the understanding of ‘traditional knowledge’, indicate that interventions need to consider the struggles of young adults at the ‘cultural interface’ (Nakata, 2002).

Firstly, participants acknowledged the need for both knowledge-bearers and recipients to take steps forward. For knowledge-bearers, this meant opportunistic teaching of knowledge, or even simply broaching the topic to prompt interest. For young adults, this may mean approaching Elders and asking questions (Douglas, 2015). For this to occur, reconnection with lost family and community is crucial. This process is important now more than ever, with concerns over the dwindling numbers of knowledge-bearers (Douglas, 2015; Haines *et al.*, 2017).

However, there are overarching structural issues that underpin the barriers to these interactions. To overcome barriers and make meaningful changes, Aboriginal culture associated with each Country needs to be understood by non-Indigenous inhabitants and policy makers. Despite partnering with communities to create policies that support the cultural rights

of Aboriginal and Torres Strait Islander peoples (e.g. cultural leave), it must be recognised that they all ultimately still rest within a Western framework. Thus, Aboriginal culture pertaining to each Country needs to become mainstream; that is, Aboriginal culture and practices need to be equally respected and weighted against its Western counterpart to break the endless cycle of intergenerational trauma and oppression. We believe this is the key to improving the SEWB of Aboriginal and Torres Strait Islander people.

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