Working at the cultural interface to meet the needs of remote Australian Aboriginal caregivers with children progressing through the nutritional period of weaning

By

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LIST OF ABBREVIATIONS

ACCHO	Aboriginal Community Controlled Health Organisation
AHP	Aboriginal Health Practitioner (registered health professional)
CBW	Community Based Worker (non-registered health professional)
CFHN	Child and Family Health Nurse
DoH	Department of Health
HPO	Health Promotion Officer
HU5K	Healthy Under Five Kids Program
LSIC	Longitudinal Study of Indigenous Children
NT	Northern Territory of Australia
PHCM	Primary Health Centre Manager
PHN	Public Health Nutritionist/Dietitian
RAN	Remote Area Nurse
RJCP	Remote Jobs and Communities Program
RMP	Remote Medical Practitioner
SDoH	Social Determinants of Health

A NOTE ON STYLE

In this thesis I use Australian English spelling, unless the text is part of a direct quote with American spelling.

To maintain confidentiality, I have used pseudonyms in place of the names of participants.

At the request of the Northern Territory Department of Health, I have withheld the name of the study community.

GLOSSARY OF TERMS

Aboriginal	In this thesis, I used the term Aboriginal to refer to all Australian Indigenous peoples within the context of the Northern Territory and the study community. This is in recognition that Aboriginal is the preferred term of people living in these communities, when not specifically identifying nation groups within the NT. I used the term Aboriginal and Torres Strait Islander peoples when referring to data and literature associated with the wider Australian context and have reserved the term Indigenous for the international context
Anticipatory guidance	Proactive education provided by health professionals which assists caregivers to understand the expected growth and development of children. Anticipatory guidance may include early education on the age at which to commence complementary foods and what foods should be offered
Central Australia	In this thesis I defined the Central Australian region to be consistent with the Northern Territory Department of Health definition which is the geographical area bordered by the South Australian, Western Australian and Queensland state borders and the township of Elliott in the Northern Territory
Codified Knowledge	Also known as learnt or explicit knowledge, codified knowledge refers to knowledge that can be easily articulated and transferred in formal, systematic language. This knowledge is readily stored and accessed. It includes manuals, documents and procedures
Country	The English term used to describe the homelands of Aboriginal peoples
Culture	The concept of culture that I applied throughout this research is: A symbolic reference system used by humans to produce and reproduce shared meaning (Allen 1998 in Baldwin 2006). It is a shifting and uncertain construct which is localised (Barfield 1997 in Baldwin 2006) and is based on the presence of a number of characteristics such as age, gender, ethnicity, social position, that cannot be viewed alone or privileged (Amariglio 1988 in Baldwin 2006)
Culturalism/Essentialist view of culture	An essentialist view of culture understands culture as a static concept based on characterising traits (usually founded on race or ethnicity) that are used to explain beliefs or practices of a 'cultural' group
Cultural Awareness	The first step towards cultural safety in being aware of differences between people from different cultural groups, including in interpersonal behaviours

Cultural Competence	A process of developing and applying skills and behaviours that enable a person to effectively interact and work with people from various cultural backgrounds. Includes the components of active listening, demonstrating empathy and effective engagement (de Guzman et al 2016)
Cultural Respect	Frameworks applied to healthcare and other settings to improve organisational approaches in order to provide culturally respectful service provision that recognises and protects the rights and cultures of Aboriginal peoples (Australian Government 2019)
Cultural Sensitivity	Being aware of and sensitive to the differences between people and recognising the rights to these differences
Cultural Safety	A number of definitions of cultural safety have been proposed that derive from the work of Irihapeti Ramsden (2002) in the New Zealand context. Commonalities of the concept include a requirement to self-reflect on one's own cultural identity, to understand historical influences on health outcomes and to recognise the power balances that are embedded in political and social structures. Cultural safety approaches perceive culture as a concept beyond race/ethnicity and propose that the provision of culturally safe care is determined by the receiver, not the provider, of care
Damper	A European term used widely in the study community to refer to a homemade bread which is made from flour and water and cooked in the fire, or alternatively in an oven. Traditionally damper was made from native seeds
Deficit discourse	Deficit discourses refer to dialogues that represent people in terms of deficiencies, failures and absences. It situates responsibility for action with individuals and overlooks the structural factors that imbed inequities (Fogarty, Lovell, et al. 2018)
Discretionary food	Foods that are not included as core foods (grains, fruits, vegetables, dairy, meats) in the Australian Guide to Healthy Eating. These foods are usually low in nutrient density and contain large amounts of saturated fat, added sugars and/or added sodium
Downstream determinants of health	Refers to the determinants of health that are experienced at the individual, family or household level. Often called proximate determinants
First 1000 days	The period of life between the conception of a child and that child's second birthday
Health hardware	Used to describe the infrastructure required in houses to enable health, including safe electrical systems, toilets, showers, taps, kitchen cupboards and benches, stoves, ovens and fridges
Humbugging	Aboriginal English term for imposing on someone for money, food or other resources

Ideology	A set of ideas or ideals shared among a group of people
Indigenous	I used the term Indigenous in this thesis when citing international data and literature that refers to the peoples who originally inhabited countries and regions
Intergenerational trauma	The "transmission of historical oppression and its negative consequences across generations" (University of Calgary 2012)
Internalised racism	The "incorporation of racist beliefs, attitudes or ideologies within an actor's worldview" that lead to ideologies about the inferiority or superiority of racial groups (Paradies 2006b, p. 151)
Lifestyle drift	The existence of macro level policies that advocate for social and primary healthcare approaches to health, but practices which reflect individual, behavioural models of care (Hunter & Jordan 2010)
Meeting the needs of caregivers	I defined that in order to meet caregiver's needs activities would have to prioritise the concerns of caregivers and respond to the context of feeding and determinants of feeding practices
Night patrol program	A community safety program, usually operated by the local council, which uses cultural mediation skills to prevent and defuse potentially volatile incidents and reduce adverse contact with the criminal justice system
Nutrient rich foods	Foods that are included as core foods in the Australian Guide to Healthy Eating. They are derived from the five food groups (grains, vegetables, fruit, dairy, meat) and contain a variety of essential nutrients
Othering	The comparing of self to a created identity of an Other who has different beliefs, norms and practices to one's own. These differences are view as inferior and non-desirable when compared to one's own (Johnson et al. 2004)
Public Health Nutritionist/ Dietitian	In Australia, the term nutritionist is used to describe a health professional with tertiary level nutrition training who works in fields such as public or community health, policy or research. Dietitians are qualified to work as nutritionists but have additional qualifications and the expertise to provide dietary counselling and medical nutrition therapy (Dietitians Australia 2020). The terms are often used interchangeably in health settings across the NT; however most community based nutrition positions are titled Public Health Nutritionist. In government services, a qualification in Dietetics is required for this role. In light of the interchangeable use of the terms in the NT context, I have also used these terms interchangeably in this thesis
Remote Jobs and Communities Program (RJCP)	A component of the Australian Government's Closing the Gap Strategy, and reflecting the agenda to increase employment and reduce welfare dependency, the program supports people living in remote communities who are unemployed to build skills to gain employment or to participate in activities that contribute to their community

Social discourse	The open discussion of norms and accepted behaviours within a societal group
Strength-based approach	An approach to shift problem and deficit narratives to focus on positive language and solutions to overcoming issues. Includes asset based approaches, resilience, cultural appropriateness, holistic approaches, decolonisation methodologies and empowerment (Fogarty, Lovell, et al. 2018)
Tacit knowledge	Otherwise known as implicit knowledge, tacit knowledge is gained from personal experience and context, it can be difficult to articulate in a tangible form and its transfer requires the development of trusting inter-personal relationships
Upstream determinants of health	A determinant of health occurring at a macro or distal level, for example government policies and national/ international economic forces
Weaning	The period between the introduction of the first foods (known as complementary foods) other than breastmilk or infant formula into a child's diet until the cessation of breastfeeding (or substitute) and complete reliance on the family diet for nutrition
Weetbix	A commercial breakfast cereal biscuit made of compressed wheat flakes and fortified with vitamins and minerals. Weetbix is a specific brand name but is applied to similar branded products by local populations relevant to this thesis. The use of weetbix has been promoted by health professionals for its low sugar and high fibre content and fortification with iron
Whiteness	Whiteness originates from critical race theory and explores how the power and privilege of dominant groups (often white skinned peoples) is reproduced in societies (Frankenberg 1993). While whiteness can relate to skin colour, it is used in this context to refer to the social structures that measure values, beliefs and practices against the norms of the dominant racial/social group and that create or reinforce inequalities in access to power and resources (Moreton-Robinson 2000). The concept has been extended in this thesis to explore the power that society attributes to the role of health professional

SUMMARY

During my work as a Dietitian, one of the communities I worked with highlighted their fears for their children's future health. Caregivers told me that more people were becoming unwell with chronic diseases and had to leave their country to access healthcare; they worried that this situation would worsen as the food system and feeding children became more complex. My own practice dilemma arose as I recognised these concerns and questioned why communities were facing an unjust burden of disease. Research indicated that optimising nutrition in the early years of life, particularly during the period of weaning (the period from the introduction of complementary foods into a child's diet to the complete reliance on these foods for nutrition), offered a window of opportunity to address health inequities. Yet concerns for children's future health were heightening in the presence of an influx of health service resources and programs that aimed to promote optimal child health and nutrition.

This research is in response to the concerns raised by that community. In this study I sought to understand if the nutrition activities undertaken by non-Aboriginal health professionals working in a remote community of Central Australia met the needs of Aboriginal caregivers whose children were progressing through the period of weaning. I defined that in order to meet caregiver's needs, activities would have to prioritise the concerns of caregivers and respond to the context of feeding and determinants of feeding practices. As such, health professionals and caregivers would be required to share knowledge, create mutual understandings and collaborate in the development of solutions and actions.

Setting the research in one community, enabled me to work closely with them to deeply explore practices and their determinants in context, at multiple timepoints over the period of the weaning of children. This approach recognises the heterogeneity of context and counteracts the generalised knowledge that is often applied when working with Aboriginal communities. So that I could meet the needs of the community and to ensure accurate representation of their voice, I worked closely with the Aboriginal Community Based Worker (CBW) employed by the local health clinic and community members, including a study reference group throughout the study. I employed critical social research methodology and undertook community focus groups, semi-structured interviews and observations to gain knowledge from both Aboriginal caregivers and non-Aboriginal health professionals. I used cultural interface theory to present this knowledge so that the voices of both groups were represented without judgement or privilege. I then applied critical social theory and postcolonial theories to analyse the interactions and sharing of knowledge between the two groups.

Through the research findings and my own reflexivity during the research process, I contribute to knowledge a model of the current cultural interface. This model demonstrates the presence of social and professional discourses of medicalisation, ‘nutritionism’ and essentialist views of culture that reinforce selective models of primary healthcare. These place the health professional in a position of power, facilitate the privileging of biomedical knowledge and contribute to Othering. This acts to oppress the participation of the caregiver and marginalise caregiver’s knowledge at the cultural interface, which clearly disempowers the caregiver and fails to meet their needs. The model also disempowers the health professional, who is aware that their activities are not meeting the needs of caregivers but experiences tension in their inability to work in different ways.

I propose an innovative model of the optimal cultural interface, supported by a comprehensive and culturally safe primary healthcare system. The model enables health professionals to undertake reflexivity to act on structural factors and oppressive practices, in order to redistribute power to caregivers, so that they can actively collaborate in the sharing of knowledge and development of solutions. The facilitation of this model requires re-orientation of the health system and training of health professionals in pre-requisite knowledge. The training will allow health professionals to respect alternative constructs of health and its determinants, adopt and action a more holistic and contextualised view of health/nutrition and develop trusting relationships with caregivers. These pre-requisites are required to facilitate the meaningful sharing of knowledge and respectful collaboration in solution generation.

DECLARATION

I certify that this thesis does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any university; and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except where due reference is made in the text.

Signed..

Date...............3rd July 2020...................

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1 INTRODUCTION

I have worked as a Dietitian in regional and remote settings, across three states of Australia, over a period of more than twenty years. My desire to address inequitable access to healthcare has guided my work to some of the most remote areas of Australia, most recently the sparsely populated region of Central Australia. Early in my career I became frustrated with the attention directed to the 'end of the process' of chronic disease management and I moved initially into primary healthcare positions that aimed to prevent disease, and eventually into roles where an early-years of life focus directed my attention away from disease prevention activities, to the promotion of overall health and wellbeing. Here I was faced with my next practice dilemma. Health professionals, including Dietitians, were undertaking more work with families to 'optimise' healthy eating; yet health data and my own experiences indicated that there had been little improvement in dietary intakes or long-term health outcomes for children as they grew towards adulthood. In addition, the food supply and eating environment was becoming more complex and caregivers were bombarded with mixed nutrition messages as access to social media and other information sources increased. These issues had led to a change in the types of questions caregivers were asking health professionals, but not necessarily to a change in health professionals' approach.

When the caregivers I worked with in the study community for this research, a remote Aboriginal community in Central Australia, spoke with me of their own concerns for their children's futures, my desire for more knowledge of the situation grew. Caregivers told me that people in the community used to be strong and healthy but now many were unwell with chronic diseases. Of most concern was the need for people to leave the community and their families to go to Alice Springs (the nearest large community) for ongoing medical treatment. Some, such as those needing renal dialysis, could not go home. The caregivers did not want this future for their children and spoke to me of their concerns that the children were not eating well, they wanted and ate "too many sweet foods". With greater varieties of these foods in the stores caregivers sought my assistance on how they could "stop kids eating that rubbish" so they could be "healthy for the future and stay with their families, in their community" (quotes from reflexive journal, October 2016). I became curious as to whether the nutrition activities provided by health professionals working in the community met the needs of the caregivers of young children, if they were prioritised to community needs and if the activities were socially and culturally appropriate.

The research that I present in this thesis provides new knowledge of the nutrition related concerns and practices of Aboriginal caregivers, whose children are progressing through the period of weaning, and sheds light on how non-Aboriginal health professionals meet the needs of these caregivers. Importantly, it provides knowledge from the perspective of the caregiver, which is missing from current literature.

I situated the sharing of nutrition knowledge between non-Aboriginal health professionals and Aboriginal caregivers at the cultural interface. My application of cultural interface theory (Nakata 1997) to explore the sharing of knowledge and collaboration in decision making, demonstrates that the cultural interface is currently a place of disempowerment for caregivers. This is due to the presence of health service structures and societal discourses that reinforce the dominance of the health professional and privilege their knowledge; thereby guiding actions that marginalise and oppress the caregiver. However, despite their position of power, health professionals are also disempowered to work in ways that would better meet the needs of caregivers. This is caused by the influence of wider health system structures and organising ideologies of health, nutrition and culture that block knowledge seeking and a contextual view of health/nutrition-related practices and determinants. My original contribution to knowledge is the development of two models representing the current and optimal cultural interface. Application of the optimal cultural interface offers new ways of working to better meet caregiver needs; therefore, I provide a series of recommendations to enable the implementation of this model into health professionals' practice.

1.1 Establishing the research

I undertook this research in one remote Aboriginal community in the Central Australian region of the Northern Territory (NT), Australia. This was the community who had raised their concerns during my work with them as a Dietitian/Public Health Nutritionist over a two year period prior to the commencement of this research. During this time, I had established trusting relationships with a number of community members, these relationships were integral to the research process and the sharing of knowledge.

Knowledge of Aboriginal peoples' practices is often applied as homogenous and standardised principles which ignore the heterogeneity of families/communities and the significance of context in shaping practices and their determinants. If activities are to meet caregiver needs, greater importance has to be placed on the individual context. Therefore, I chose to conduct research intensively with one community in recognition of the diversity of Aboriginal peoples and groups. Studying one community allowed me to work closely with the community, enabled the building of trusting relationships with participants and facilitated in-depth knowledge as I could meet with and observe participants regularly and at multiple time points across the weaning period; a period in which there is rapid and significant changes in feeding practices.

Eighteen months prior to the commencement of this research, I changed my employment to an urban-based position in Alice Springs and no longer provided nutrition services to the study community. This allowed me to differentiate my role as researcher from my previous position as the government-employed Dietitian in the community and enabled me to work with the community in new ways, which were not constrained by health service expectations. At the beginning of the research process, I met with women from the community and the CBW, employed by the local health service, to learn more about their concerns for child health and nutrition and to develop a research proposal that was appropriate and met the community's needs. The community provided consent for the study and we established a reference group of women from the community, led by the CBW. This group provided guidance on the methods and tools used in the research, recruited caregivers and reviewed and provided further information on the community-based findings. I obtained ethics approval for the study from the Central Australian Health Research Ethics Committee (HREC-16-389) and Flinders University Social and Behavioural Research Ethics Committee (OH-00116) and permission to undertake the research from the NT Department of Health (DoH) and the council of the local government area in which the community was located.

1.2 Context of the research

Australian Aboriginal cultures are amongst the oldest surviving cultures in the world and Aboriginal peoples have lived in mainland Australia for over 65 000 years (Clarkson et al. 2017). At the time of colonisation by European settlers in 1788, more than 500 discrete cultural groups of Aboriginal peoples inhabited all regions of Australia and people were described as strong and healthy (Fallon & Enig 2000; Gould 1967). Modern mainstream reports of the health status of Aboriginal peoples are vastly different. As I discuss in section 2.2, the colonisers implemented a number of practices that have produced sustained and significant inequities in health and social outcomes by disconnecting Aboriginal peoples from their lands, families and cultures and embedding policies and structures into government institutions and social systems that have entrenched the marginalisation and oppression of Aboriginal peoples (Griffiths et al. 2016). These actions have been reinforced in contemporary systems leading to an inequitable burden of disease for Aboriginal peoples and contributing to an unjust life expectancy of around eight years less than non-Aboriginal Australians (Australian Indigenous HealthInfonet 2019; Australian Institute of Health and Welfare 2016b).

European settlement of Australia occurred over a period of more than 100 years, with some peoples in the NT moving into established settlements as recently as the mid 1980's. As pastoralists gradually took over land in the Central Australian region most Aboriginal people were forcefully removed from their country and family and kinship groups were torn apart. People were relocated to established government settlements or church operated missions, where people were trained in Western practices and beliefs and prohibited from undertaking cultural practices (Ling 2011). Communities, such as the study community, which I describe in section 6.1, were also established on cattle stations close to ration depots where the movement of Aboriginal people could be controlled through the provision of food and other resources. The conditions on these communities were highly variable and determined largely by the attitudes of the station managers (Young 1987). Contemporarily, the vast Central Australian region comprises one large city (Alice Springs), one smaller township of a few thousand people and many geographically-sparse small communities, ranging from a few houses to 1000 people, which are inhabited predominantly by Aboriginal peoples. The communities and the people residing in them have changed over time and modern communities include people from a range of family and language groups who have close kinship connections with, and frequently travel between the communities.

Many of these communities are serviced by government operated health clinics, although a small number are serviced by Aboriginal Community Controlled Health Organisations (ACCHOs). The government operated health services function under a primary healthcare framework and employ Remote Area Nurses (RANs) and in some settings, but not the study community, registered Aboriginal Health Practitioners who live in the community. These staff are supported by outreach doctors, specialist and allied health staff. Each of these health professionals are expected to undertake some nutrition activities as part of their role, with activities in early childhood guided by the Healthy Under 5 Kids (HU5K) health screening and anticipatory guidance program (Kruske & Donovan 2009) and the NT DoH nutrition and physical activity strategic plan (Northern Territory Government 2015b).

1.3 Rationale for the research

The research was instigated by community concerns and my own experiences working as a Dietitian in remote Aboriginal communities. There is also significant evidence, which I discuss further in Chapter 2, that Aboriginal peoples in Australia experience an inequitable burden of ill health, most of which is related to preventable chronic disease (Australian Institute of Health and Welfare 2016b). Both caregivers and health professionals are concerned about the impact of these chronic diseases on future outcomes for children, yet the ways in which the groups interact to address these concerns through nutrition and the effectiveness of these interactions, are unknown.

Health inequities have their origins in the colonised history of Australia and are created from reduced access to resources that directly impact on or enable health and health promoting behaviours (Commission on the Social Determinants of Health 2008; King, Smith & Gracey 2009). In addition, marginalisation, discrimination and racism further influence health outcomes, both directly through the creation of adverse health outcomes and trauma (Henry, Houston & Mooney 2004; Herring et al. 2013), and indirectly through reduced access and negative experiences with mainstream service organisations (Aspin et al. 2012; Marrone 2007). These experiences include miscommunication and the provision of activities that are based on Western constructs which are not adapted to effectively meet the needs of Aboriginal peoples (Aspin et al. 2012; Reid & Taylor 2011).

1.3.1 The importance of nutrition in early childhood

Current health literature is dominated by a Western biomedical view of health, which may not align with the views of Aboriginal peoples. This literature indicates that chronic diseases may result from health, growth and nutritional concerns experienced in early childhood (Gluckman et al. 2008; Phillips-Beck et al. 2019). The double burden of disease described for NT communities: persistent undernutrition presenting as anaemia and growth faltering, coupled with rising rates of obesity and chronic disease diagnosed earlier in life (Gracey 2007; Northern Territory Department of Health 2016), has been associated with this increased risk of later disease.

The recognition of early childhood as a unique ‘window of opportunity’ in which to influence child development and future health outcomes (Moore et al. 2017) has led to an increase in health policies and actions that aim to intervene across the ‘first 1000 days of life’, including a number of programs targeted to Aboriginal communities (Arabena 2014; Arabena, Panozzo & Ritte 2016; Ritte et al. 2016). There is increasing scientific evidence that the diet during the weaning period, the period from the introduction of complementary foods into a child’s diet to the cessation of breastfeeding, strongly reflects not only immediate but also future health outcomes (Langley-Evans 2015; Schwarzenberg 2018; Smith & Harvey 2011; World Health Organization 2003a). A body of research indicates that the types and variety of foods offered during the weaning period influence taste preferences and dietary patterns that track into adulthood thereby influencing adult dietary quality (Birch 1998; Coulthard, Harris & Fogel 2014; Lioret, Betoko, et al. 2015; Northstone & Emmett 2008; Skinner et al. 2002), and it is argued that the interactions between caregivers and children when feeding may be just as, if not more, important in determining future dietary behaviours than the foods themselves (Savage, Fisher & Birch 2007; Ventura & Birch 2008). However, this research has predominantly been undertaken with White, middle class families and its relevance to Aboriginal families has not been explored; despite knowledge of cultural, ethnic and socio-economic variations in feeding styles (Mena et al. 2015; Pak-Gorstein, Haq & Graham 2009).

Other gaps in research include knowledge of the determinants of feeding practices and caregiver feeding practices, particularly for Aboriginal families. Current nutritional data and knowledge of children's dietary practices is mostly confined to compliance with dietary guidelines and there is minimal knowledge of the determinants of these practices. Whilst there is a small body of knowledge of the dietary intakes of Australian children around the time of weaning, there is negligible information on the dietary intakes of young Aboriginal children, with existing studies predominantly limited to those describing breastfeeding rates and timing of the introduction of complementary foods. Whilst the importance of caregiver feeding practices on current and future dietary intakes has been proposed, knowledge of the feeding practices of Aboriginal caregivers in Australia is limited to brief descriptions of feeding in ethnographic style studies of wider childrearing practices (Hamilton 1981, 1982; Harrison 1986; Kruske et al. 2012).

1.3.2 Nutrition related practices of health professionals

Knowledge of the nutrition related practices of health professionals (i.e. the activities provided to determine and address nutritional concerns) is also confined principally to descriptions of intervention studies. The daily nutrition activities, as they are integrated into standard workloads, and the factors that influence these practices have not been documented in detail. There is some indication that health professionals' activities in primary healthcare settings are directed towards primary care activities, predominantly screening and treatment of disease, and that acute care is prioritised over preventative health services (Labonté et al. 2008; Lawless et al. 2014; Rubio-Valera et al. 2014).

Research also indicates that miscommunication (Cass et al. 2002; Lowell et al. 2012) and racism (Durey 2010; Henry, Houston & Mooney 2004; Larson et al. 2007; Paradies 2008) are pervasive across the Australian health system; and that health professionals working in Aboriginal health feel unprepared, unsupported and uncomfortable working in cross cultural environments (Colles, Maypilama & Brimblecombe 2014; Taylor 2010; Wilson 2011). Australian studies have indicated that these issues may be related to the way in which culture is viewed (Downing & Kowal 2011; Fredericks 2008a) and the dominance of non-Aboriginal knowledge frameworks in healthcare interactions (Cass et al. 2002; Durey 2010; Jennings, Bond & Hill 2018). Only one study has explored these concepts as related to nutrition (Wilson 2011). Most of the recent research into the factors underpinning health professionals' practices has been conducted in Canada (Blanchet Garneau & Pepin 2015; Browne 2009; Browne & Smye 2013; Tang & Browne 2008) and is yet to be applied to the Australian setting.

1.3.3 Rationale summary

It is clear that the weaning period presents an opportune time in which to support caregivers to establish healthy eating practices that persist to inform future dietary quality and risk of chronic disease. However, whilst there has been increased policy focus directing health professionals to provide nutrition activities to caregivers with young children, the practices of caregivers and actions of health professionals in this area are largely unknown. The persistence and potential widening of health inequities suggests that the practices of health professionals need to be reviewed to determine if they are meeting the needs of caregivers and if not, what factors are inhibiting the required focus. Action on any areas of concern arising from this research could be applied to better meet the needs of caregivers through:

- reframing nutrition interventions/activities and
- improving the interactions between health professionals and caregivers at the cultural interface

This has the potential to better meet the needs of caregivers through increased collaboration in the development of actions that align with caregivers' concerns and address the determinants of practices that caregivers describe as influencing nutrition and wellbeing. These actions would assist more widely in addressing the current health equities experienced by Australian Aboriginal peoples.

1.4 Research questions

This research therefore aimed to address the following research question:

> Do the nutrition activities undertaken by non-Aboriginal health professionals in a remote community in Central Australia meet the needs of Aboriginal caregivers with children who are progressing through the weaning period?

I determined that in order to meet the needs of caregivers, nutrition activities were required to:

- prioritise the issues of concern described by caregivers
- recognise, consider and respond to the current feeding practices, context in which feeding occurs and the determinants of feeding practices

I therefore proposed that to meet the needs of caregivers, health professionals and caregivers would be required to share knowledge, develop mutual understandings and collaborate in the development of solutions and actions.

To answer the research question, I also asked:

- What are the weaning practices of Aboriginal caregivers and what are the determinants of these practices?
- Do health professionals have knowledge of these practices and their determinants?
- What nutrition activities are undertaken by non-Aboriginal health professionals and what informs and influences these practices?

These sub-questions are explored in Chapters 7 and 8 and the interactions of health professionals and caregivers in meeting the needs of caregivers is reported on in Chapter 9.

1.5 Research approach

Previous research into child feeding practices has predominantly employed quantitative approaches. However, the need to explore the practices and their determinants, directed my attention to qualitative approaches to research. A qualitative approach enabled an exploration of how and why practices occurred, the context in which they occurred and the interplay between contributing factors (Black 1994; Swift & Tischler 2010). During the planning of this research I underwent an epistemological shift from positivism to social constructionism, as I extended my relationships with caregivers and began to understand and respect the diversity of views and experiences. This prompted my acknowledgement that practices and their determinants vary amongst individuals, are influenced by the wider socio-cultural-historical context (Crotty 1998) and that all experiences contribute to ‘valid’ knowledge (Denzin 2008). This transition influenced my choice of methodology and theory.

I utilised critical social research methodology, which allowed an in-depth analysis of the underlying socio-historical factors underpinning practices through a dynamic process of deconstruction and reconstruction of the emerging data (Harvey 1990). Acknowledging my own role in the research process and findings, I engaged in reflexive practice, guided by the use of a reflexive journal, to determine how my own knowledge, experiences and actions contributed to, and influenced, the research (Finlay 2002). Reflexive practice also prompted participatory engagement (Nicholls 2009b) and I worked with participants, the study reference group and the CBW to clarify and confirm the research findings. This process added rigour and credibility to the research findings (May & Perry 2014).

To represent the voices of both caregivers and health professionals, without the need for binary contrasts or privileging of the knowledge and practices of either group, I applied cultural interface theory, which I describe in Chapter 5. This theoretical approach facilitated an exploration of the sharing of knowledge and collaboration of health professionals and caregivers in creating shared understandings, meanings and solutions to problems or issues of concern (Nakata 2010) and I applied critical social theory and postcolonial theory to the analysis to understand the influences on this knowledge sharing. To my knowledge, this is the first application of Nakata’s cultural interface theory to create understanding of nutrition practices.

In Stage One of the research, I undertook focus groups with Aboriginal community members to explore the child health and nutrition concerns of the community, gain knowledge of the feeding practices recommended by health professionals and to obtain general information about the context in which feeding occurred. I also took time to build and reinforce trusting relationships with the Aboriginal CBW, community members and caregivers, which were integral to the study and the sharing of knowledge.

The CBW then invited caregivers of children aged from three months to three years of age to participate in semi-structured interviews and photovoice activities during Stage Two of the study. These activities were planned to collect in-depth information about the experiences and practices of the caregivers in feeding children who are progressing through the weaning period, including the roles of other people in caregiving, the preferred practices of caregivers and the determinants influencing practices. I also reviewed each child's medical records, with consent, to identify any experiences of health or nutritional concerns, which I discussed with the caregivers to determine if they influenced feeding practices and to explore any interactions with health professionals relevant to these concerns.

During Stage Three of the study, I conducted semi-structured interviews with non-Aboriginal health professionals who were employed by the government-operated health service. All health professionals, at the time of the study, or during the three years prior to the study, provided a regular nutrition related service to caregivers of young children living in the study community. Throughout each stage of the study, I undertook observations of child feeding around the community (including homes, community facilities and the childcare centre) and health professionals' practices in the clinic and community settings.

1.6 Situating myself in the research

Over many years of nutrition and dietetic practice I have worked extensively with people from Aboriginal and other cultural backgrounds. Sometimes I struggled with the complexities of working with people from cultures other than my own and felt constrained by barriers that were outside of my control and limited my ability to adjust my practice. I focused on the lack of change in health data and felt like my work wasn't making a difference. During more positive times I reflected on the relationships that I developed with caregivers. The successful both-ways sharing of knowledge during these situations boosted my enthusiasm and gave me persistence to keep trying. Throughout this research I constantly reflected on my practices and my approach, I discussed my feelings with colleagues and know that my experiences working in Aboriginal health have not been unique.

I am a non-Indigenous, middle class woman of Dutch migrant descent. As part of the dominant cultural group in Australia, I am privileged in my access to education, healthcare and other services. My social norms and daily life practices, such as how I raise my children, are usually not questioned. At the commencement of this research, I was aware of my position of privilege and certainly recognised that I had better access to resources than most of the people I worked with. I acknowledged that resource distribution was inequitable across groups in society and that this was informed by political factors, but I really was unaware of how these had been shaped or worked to influence my own actions, even though I had attended multiple cultural awareness style training courses and read widely. I tried to adapt my practice to be culturally sensitive and respectful when working with people from other cultural groups.

Throughout this thesis I describe how I shifted my focus, critically reflected on myself, my culture, knowledge and experiences, and significantly changed my thinking and approach; not just in practice, but in everyday life. This change in practice occurred as I was able to spend more time with caregivers and actively deferred my own knowledge and priorities in order to learn more from others. I began to respect the diversity and inter-connectedness of practices, experiences and contexts and explored how my interactions with others shaped the information shared and the innovative solutions developed to issues of concern. From this I have a much greater awareness of the social influences on health, nutrition, concepts of culture and the perceived validity of knowledge. Whilst I had some knowledge of the history of colonisation in Australia, I have significantly expanded this and now consider the biases related to where my knowledge has come from; and how colonisation has, and continues to impact on social discourses, power, privilege and dominance. I read widely and spoke with a diverse range of people, both Aboriginal and non-Aboriginal, and reflected on the diversity of knowledge I gained.

Whilst initially I considered the knowledge obtained from peer reviewed health journals as the source of ‘valid’ and ‘true’ knowledge, I now openly consider knowledge from philosophy, sociology, anthropology, politics, education and several other fields; and have considered topics such as theory, pedagogy, social justice, equity, structures and systems. I am aware that the way I interacted with participants during the course of this research changed, in a positive way, and there is no doubt that my own experiences throughout this research and my PhD journey influenced the research process and findings. They have certainly shaped the recommendations that I present at the end of this thesis. I am convinced that an openness to new ways of viewing health and nutrition, combined with reflexivity on the factors that shape health professionals’ practices, offers great opportunities for health professionals to work collaboratively and more effectively at the cultural interface and that these new ways of working can result in the empowerment of both groups.

1.7 Thesis structure

In this chapter, I introduced the thesis, the origin of the research and research questions, the significance and originality of the research, my approach and how my experiences shaped the research and its findings.

In **Chapters 2, 3 and 4**, I provide a **review of the literature** necessary to explain the context and rationale for the study and highlight the existing knowledge and gaps that contributed to the development of the research question. In Chapter 2, I open the literature review with a description of the Aboriginal peoples living in Australia and the NT. I summarise the history of the colonisation of Australia and describe its impacts on the contemporary health, diet, parenting and social position of Aboriginal peoples and how these are viewed by Aboriginal people and dominant society.

In Chapter 3 I highlight the importance of the early years of life on future health outcomes and their influence on the quality of the diet in adulthood. In doing so, I provide rationale as to why the weaning period is a critical time to target nutritional behaviours. In this chapter, I highlight the gaps in current knowledge of Aboriginal children's diets and caregiver's feeding practices. I describe the dominance of Western knowledge that is used to inform health professionals' practice and how this contributes to a deficit view of Aboriginal health and caregiving behaviours.

In Chapter 4, I provide background information on the practices of health professionals. I describe health service provision in the Central Australian region of the NT and the integration of best practice approaches for accessible and effective health services for Aboriginal peoples into health policies. I then outline the current focus of nutrition research with remote Aboriginal communities in Australia and its application to practice as I summarise the reported nutrition related practices of health professionals and the characteristics of effective nutrition interventions as described by research.

In **Chapter 5**, I provide an overview of the history of health and nutrition and a **critique of the current theories** underpinning the nutrition activities reportedly undertaken by health professionals. I **present alternative theories**, that could be used to address the limitations of the currently applied theories, to enhance our knowledge of health and nutrition.

I present and justify the epistemology, theoretical approach, **methodology and methods** applied to the research in **Chapter 6** and outline how I ensured ethical conduct of the research. In this chapter I also describe the study community, participants and approach to data management and analysis.

In **Chapters 7, 8 and 9**, I present **the findings of the study**. Following the structure of the literature review and aligning with the concept of the cultural interface, firstly I present the voice of Aboriginal caregivers in Chapter 7 and then the voice of non-Aboriginal health professionals in Chapter 8. In these chapters I describe the health and nutrition concerns of participants, the feeding practices and their determinants as discussed by caregivers and the perceptions of these by health professionals. In Chapter 8 I also describe the nutrition related practices of health professionals, the factors that influence the selection of practices and how these practices are undertaken.

I explore the knowledge sharing and collaboration of health professionals and caregivers in Chapter 9. I add new findings from health professional interviews that describe how health professionals share nutrition knowledge and the factors that they perceive influence the knowledge shared. I then extend these findings and apply postcolonial and critical social theory to further understand the wider factors shaping the sharing of knowledge and decision making processes at the cultural interface. I present a model, which I developed, to illustrate how the determinants of feeding practices are viewed by caregivers and health professionals.

I complete this thesis with a **discussion** chapter (**Chapter 10**), in which I review the findings from Chapters 7-9 and compare these to what is known in the literature. I present new models depicting the current and optimal cultural interface and offer a series of recommendations to modify practices to better meet caregiver needs. I also reflect on the research process and strengths and weaknesses of the research. I end the chapter with a conclusion highlighting the significance of this research and its contribution to new knowledge and suggest areas for future research.

2 ABORIGINAL HISTORY AND HEALTH

Australian Aboriginal cultures are amongst the longest surviving cultures in the world and Aboriginal peoples today continue to experience health and social benefits from strong connections to culture, spirituality, family and community that encourage and support resourcefulness and resilience (Lohoar, Butera & Kennedy 2014). There are distinctive cultural differences between Australian Aboriginal societies, with a diversity of languages, cultural practices and traditions, however, there are many shared experiences and consequences of colonisation, that continue to impact on Aboriginal health (Carson et al. 2007; Dudgeon et al. 2014; Gee et al. 2014).

In this chapter I introduce the context of this study and Aboriginal health in Australia and the NT. The NT is unique in that one third of its population are Aboriginal peoples who, unlike in other regions in Australia, live predominantly in small, very remote communities. Whilst health data indicates that Aboriginal people living in remote areas of Australia are at a higher risk of ‘poor’ health due to compounding impacts of isolation and reduced access to services (Australian Indigenous HealthInfonet 2019), alternative research describes lower rates of morbidity for people living on remote outstations that are associated with greater participation in cultural activities (McDermott et al. 1998). In this chapter I explore how health and its determinants are likely to be perceived by health professionals and by Aboriginal caregivers.

Mainstream health data informs the delivery of health services and prioritisation of health professionals’ practices. I present a summary of Aboriginal health as described by this data to provide context to the practices of health professionals in this study. The data indicates that Aboriginal people in Australia and the NT experience a high burden of largely preventable chronic diseases, that may originate in early childhood. Knowledge of these inequities has directed health actions that aim to reduce the risk factors and behaviours that contribute to these diseases, which I discuss further in Chapter 4. Mainstream health data however presents only one view of health, based on biomedical understandings and the ideals of the dominant non-Aboriginal population (Nguyen & Cairney 2013). It presents a deficit and narrow view of health, which may not align with that of the Aboriginal caregivers in this study.

In recognition of this cultural bias, I explore alternative notions of health and wellbeing that present a more holistic and collective view of health that is more likely to align with Aboriginal caregivers’ concepts. A more holistic view of health recognises that health outcomes and health behaviours are related to a variety of determinants, including social and economic factors that are outside of the control of the individual, known as the Social Determinants of

Health (SDoH) (Carson et al. 2007; Commission on Social Determinants of Health 2007; Marmot 2005, 2011). As opposed to contemporary reports, Aboriginal peoples at the time of colonisation of Australia were described as healthy and strong (Fallon & Enig 2000). Policies and practices implemented by European settlers led to pervasive racism and discrimination that have become embedded into contemporary structures and social discourses to reduce access to the resources and power required to enable health (Griffiths et al. 2016; Henry, Houston & Mooney 2004; Kēhaulani Kauanui 2016; Paradies 2008). Aboriginal health reports are increasingly recognising the impact of these SDoH on the health outcomes of Aboriginal peoples, however the concepts continue to be influenced by Western constructs of the determinants. The Indigenous Social Determinants of Health (Carson et al. 2007; King, Smith & Gracey 2009) are commonly used to extend the SDoH to incorporate some aspects of Aboriginal wellbeing. I critique the application of these factors before describing a newly developed alternative framework that may better represent the determinants of Aboriginal health and wellbeing and therefore assist in promoting a more holistic view of Aboriginal health and a strength based approach to healthcare (Cairney et al. 2017; Nguyen & Cairney 2013).

2.1 Australian Aboriginal peoples

The collective term Indigenous is often used to refer to the First Peoples and original custodians of Australia who comprise two distinct main cultural groups, Aboriginal peoples and Torres Strait Islander peoples. Within these groups there is a diversity of cultural values, practices and languages. Legally and administratively in Australia, an Indigenous person is of Aboriginal or Torres Strait Islander descent who self-identifies and is accepted by the community as Indigenous (Australian Government 2010). This definition is predominantly accepted by the Aboriginal community (Paradies 2006a) but is often considered generic and is not preferred by many people (AIATSIS 2018). The majority of Indigenous peoples in the Central Australian region are Aboriginal and in accordance with the preference of most people in the NT (Northern Territory Government 2016b), I used the term Aboriginal throughout this thesis to refer to Aboriginal peoples within the NT setting. I used the preferred term Aboriginal and Torres Strait Islander to reflect national data referring to the Indigenous peoples of Australia and reserved the term Indigenous for the international context.

2.1.1 Aboriginal peoples in Australia

Currently Aboriginal and Torres Strait Islander peoples represent 2.8% of the Australian population (Australian Bureau of Statistics 2016b). As shown by Figure 2.1, the Australian Bureau of Statistics (2016) describes the Aboriginal and Torres Strait Islander population as having a much younger age profile than the non-Indigenous population with more than half of the Aboriginal and Torres Strait Islander population aged under 25 years, compared to less than one third of the non-Indigenous population. The bureau describes that in the early childhood years this gap is even greater with 11.3% of the Aboriginal and Torres Strait Islander population aged under 5 years of age compared to 6.1% of the non-Indigenous population. In contrast, only 5% of the Aboriginal and Torres Strait Islander population is aged over 65 years, compared to 16% of the non-Indigenous population.

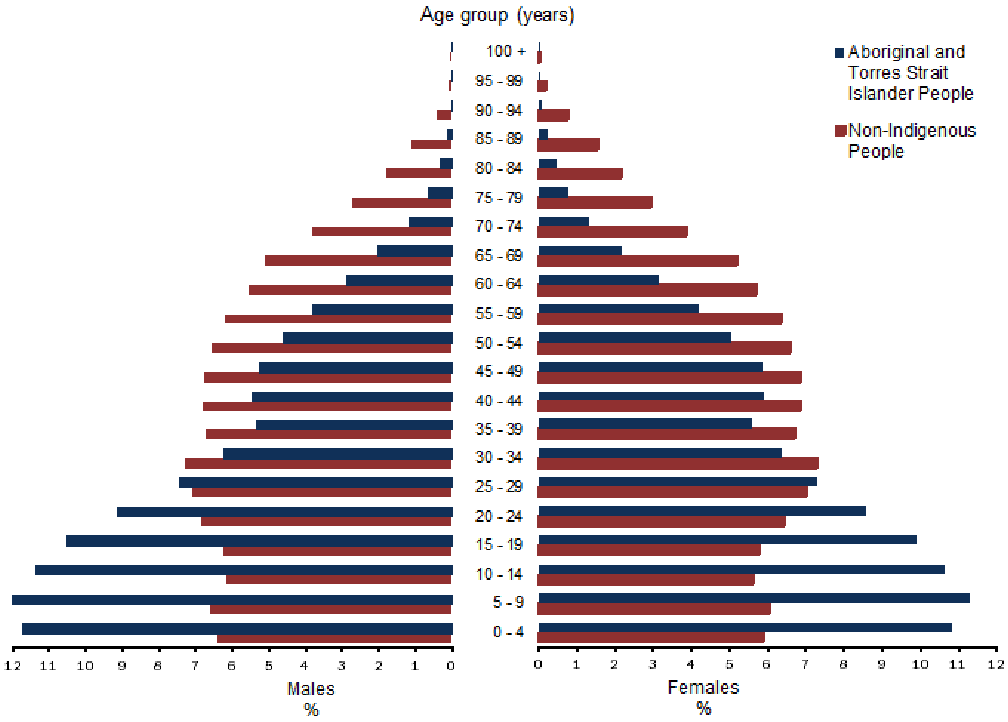

Figure 2.1 Age distribution of Aboriginal and Torres Strait Islander and non-Indigenous Australians

(Australian Bureau of Statistics 2016b)

Population Structure- CC BY 4.0- ABS data used with permission from the Australian Bureau of Statistics

In section 2.3, I discuss data that indicates that Aboriginal people are dying early from preventable causes, with two thirds of the deaths of Aboriginal and Torres Strait Islander peoples occurring before 65 years of age (compared to 19% non-Indigenous) (Australian Health Ministers Advisory Council 2017). Peak bodies have argued that a life course approach, in which a series of interventions are targeted at critical periods throughout the lifetime, is required if the gap in life expectancy is to be reduced. However, given the large proportion of the population in the early childhood age group, I contend that the focus of activities should be placed on improving the health of younger Aboriginal Australians, which as I argue in Chapter 3, is the opportune time to influence long term wellbeing (Commonwealth of Australia 2013; Queensland Government 2016; Reconciliation Australia 2009).

2.1.2 Aboriginal peoples in the Northern Territory

Almost one in three (31%) of the people living in the NT identify as Aboriginal or Torres Strait Islander, the highest proportion of all Australian states and territories (Australian Institute of Health and Welfare 2017a). Table 2.1 highlights that whilst across Australia the Aboriginal and Torres Strait Islander population is more urbanised, within the NT more than half (58.3%) of the Aboriginal population live in very remote areas (Australian Institute of Health and Welfare 2017a)[1].

It is commonly perceived that the higher rates of residency by Aboriginal peoples in remote and very remote areas of the NT places them at risk of poor health status due to the compounding impacts of isolation and reduced service availability on health risk factors (Australian Bureau of Statistics 2008). As such, 60% of the health gap between Aboriginal and non-Aboriginal Australians has been attributed to the higher proportion of Aboriginal peoples living in remote areas of Australia (Vos et al. 2009). However, studies of people living in remote outstation communities in Central Australia challenge this view, with reports of reduced morbidity and mortality compared to urban areas (McDermott et al. 1998; Rowley et al. 2008). This is attributed to stronger connections to land, culture and family, consumption of a healthier diet, greater participation in physical activity and enhanced empowerment (Scrimgeour 2007).These determinants are not generally recognised in the national data.

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[1] I have classified remoteness areas using the Australian Statistical Geography Standard Remoteness Structure (ASGSRS) as used by the AIHW health performance reports. This classification is based on the Accessibility/Remoteness Index of Australia which measures the remoteness of a point based on the physical road distance to the nearest urban centre (Australian Bureau of Statistics 2013)

Table 2.1 Population distribution of Aboriginal and Torres Strait Islander People

	% of Aboriginal and Torres Strait Islander Population	% of non-Indigenous Population	% total population
Northern Territory*			
Outer regional	20.3	70.9	55.8
Remote	21.4	20.9	21.1
Very remote	58.3	8.2	23.1
Australia			
Major cities	34.8	71.3	70.2
Inner regional	22.0	18.3	18.4
Outer regional	21.8	8.7	9.1
Remote/very remote	21.3	1.7	2.3

(Australian Institute of Health and Welfare 2017a)

**Note there are no major cities or inner regional centres in the NT*

2.2 The colonisation of Australia

Discussions of colonisation in Australia, as in other parts of the world, is a contested space. Issues of terminology and history are influenced by whose voice is prominent. While my own education taught terms such as ‘discovery’ and ‘settlement’ in relation to the European presence in Australia, Aboriginal people and others hold different perspectives and use language, such as ‘invasion’ and ‘dispossession’, to describe the experience of colonisation. There is much to learn of the history of colonisation in Australia, which is too extensive to include in this thesis, I therefore provide in this chapter a brief overview of this history to provide insight and context into the factors that continue to influence the wellbeing of Aboriginal peoples across Australia and in the NT. I discuss the history of the study community in section 6.1.

Aboriginal peoples are known to have resided in mainland Australia for over 65 000 years (Clarkson et al. 2017) and developed diverse laws and cultural practices that were maintained for thousands of years (Hunter 1993). These contributed to descriptions of Aboriginal people by European settlers as being physically strong and healthy in appearance and in better health than most Europeans (Fallon & Enig 2000; Gould 1967; Jackson & Ward 1999). The instigation of policies, societal views and practices that were initiated during colonisation and are embedded into contemporary structures, are widely recognised as the overarching drivers of Aboriginal health inequities (Osborne, Baum & Brown 2013; Paradies 2016). The impacts of colonisation on health are highly complex and are evident both within and across generations (Griffiths et al. 2016). They impact directly on health outcomes such as intergenerational trauma and internalised racism (Paradies 2016) and indirectly through societal ideologies of deficit that embedded the marginalisation and oppression of Aboriginal peoples at institutional levels; leading to structural violence, disempowerment and reduced access to the resources needed to enable health (Lynch et al. 2000; Markwick et al. 2014; Paradies 2016).

Whilst the history and practices of Aboriginal peoples across Australia are diverse, the experience and continuing impacts of colonisation have been similar for many communities (Austin & Parry 1998; Dudgeon et al. 2014; Gee et al. 2014; Harris 2003). Colonisation was not a single event. Settlement was staggered across Australia over a period of more than one hundred years with exploration of the desert regions of Central Australia not commencing until the 1850s (Ling 2011). As I illustrate in Figure 2.2, ongoing impacts of colonisation continue today through the integration of policies and societal discourses, established during early colonisation, into contemporary socio-political structures.

Colonisation in Australia has been identified as a form of settler colonialism, which views it as an ongoing structure and not a past event (Brock & Gara 2017). This “exposes the fact that it cannot, and should not, be relegated to the past” (Crotty 2018 p37). Settler colonialism occurs when there is a focus on the procurement of land and resources in order to establish new settlements with new ways of life (Boucher & Russell 2015). As part of the process of this acquisition, settlers aim to eliminate (or later assimilate) Indigenous peoples and their claims to the land through physical, psychological, social and legal practices that create narratives of superiority of the settling group and reinforce the legitimacy of their claims and the processes used to acquire sole use of the land (Boucher & Russell 2015). As I discuss in detail below and summarise in Figure 2.2, these practices in the Australian context included the identification of Australia as Terra Nullius (empty land), acts of violence and genocide, relocation of Aboriginal people away from new settlements, the destruction of family and kinship groups, prohibiting the participation in cultural practices and a range of other acts designed to manage, regulate and govern Aboriginal peoples (Boucher & Russell 2015). These practices evolved over the process of colonisation into different modalities, discourses, institutional policies and acts, that restrict access to resources and apply legal distinctions, such as the NT intervention, which I discuss in section 2.2.1.1; and higher rates of incarceration and child removal (Crotty 2018), that ensure that colonial power and political order is secured and maintained (Boucher & Russell 2015 p19).

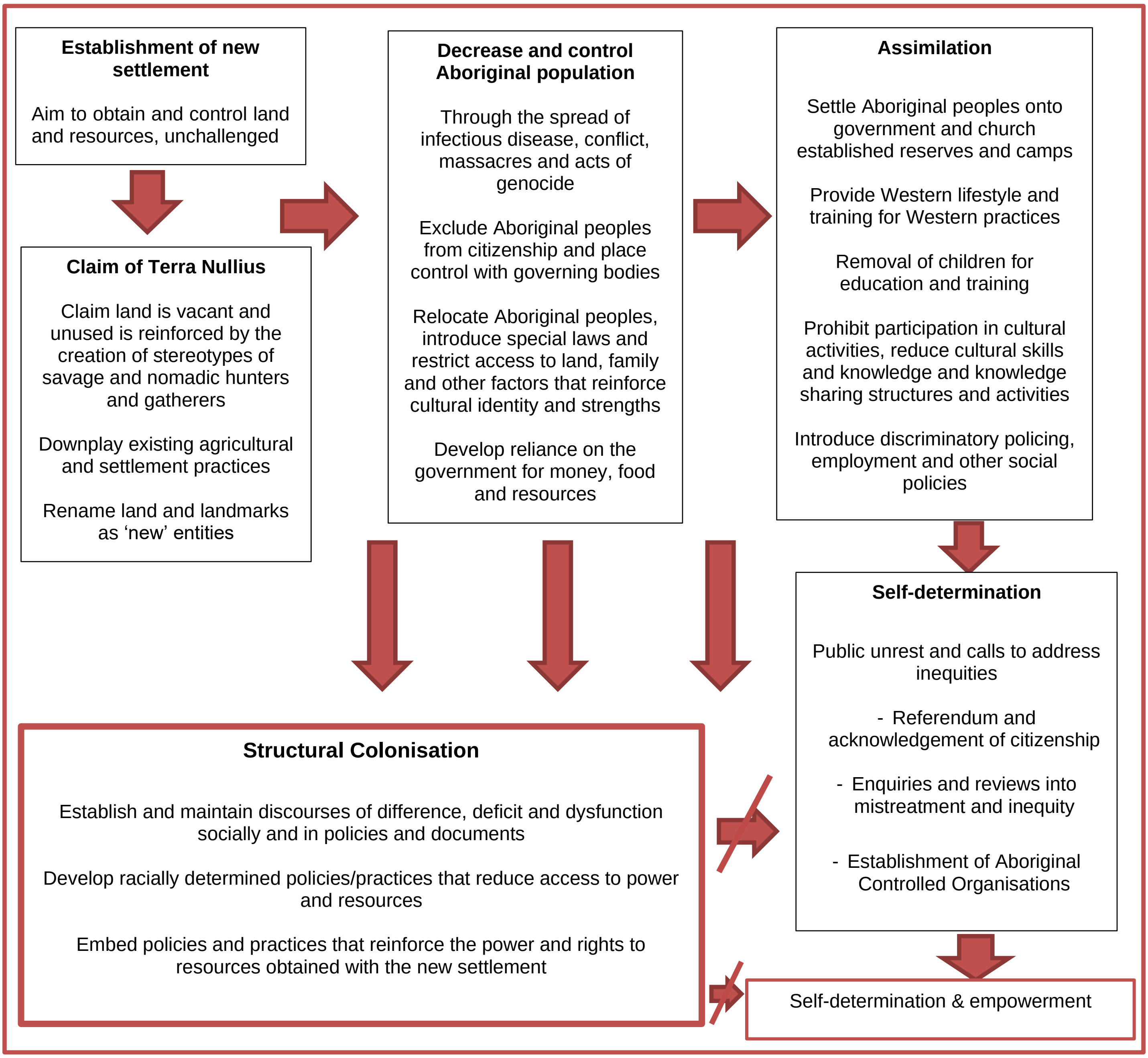


Figure 2.2 Colonisation in Australia

2.2.1 Policies of colonisation that impact on contemporary health and nutrition outcomes

The claim that Australia was Terra Nullius by early settlers paved the way for the dispossession and oppression of Aboriginal peoples, as all land could be claimed for the crown without the negotiation of a treaty (Eckermann 2010). This claim was supported by the establishment of stereotypes of hunter-gatherers and nomadic people who did not adequately utilise the land (Wolfe 2006). The transmission of diseases and early conflict, including wide scale massacres and genocide through the poisoning of flour and water supplies, reduced the size of the Aboriginal population by an estimated 90% between 1788 and 1850 (Austin & Parry 1998; Harris 2003). This led to a belief that Aboriginal people were a ‘dying race’ (Moran 2005) and protectionist policies were introduced which made Aboriginal peoples the property of the colonisers and established the subordination and disempowerment of Aboriginal peoples (Griffiths et al. 2016).

Protection policies and the following assimilation policies implemented from the 1930s, resettled Aboriginal people away from towns and onto government and mission settlements (Harris 2003). Whilst these policies were presented as a strategy to protect Aboriginal people, the living conditions in the settlements were poor, leading to mass outbreaks of infections and malnutrition (Harris 2003; Littleton 2005). Regulations were established which controlled almost every aspect of Aboriginal peoples’ lives, with the aim of assimilating Aboriginal people into White society through the abolishment of culture and the prohibition of participation in cultural practices or use of Aboriginal languages (Australian Human Rights Commission 1997; Eckermann 2010; McGregor 2011; Thomson 1984). These policies were perpetuated by racism and prejudice and served to establish an ongoing cycle of poverty, demoralisation, dependency and marginalisation, while destroying Aboriginal peoples identity (Eckermann 2010). By the mid-late 1800s, legislation named the Chief Protector of Aborigines as the legal guardian of all Aboriginal, and as termed at the time ‘half-caste’ (mixed heritage) children, which allowed the removal of children from their families to be rehoused in dormitories where they were trained in European ways (Australian Human Rights Commission 1997; Littleton 2005).

From the 1940s, community unrest regarding separationist policies led to the gradual but significant introduction of legislation allowing Aboriginal peoples to receive social security benefits, employment and legal aid (Eckermann 2010). Whilst these were positive, discriminatory policies remained in place until well into the 1960s when integration policies were introduced to provide Aboriginal peoples with more control over their lives. Whilst these later policies aimed for self-management, commentators argued that this was unrealistic as the previous treatment of Aboriginal peoples and ongoing impacts of colonisation resulted in Aboriginal peoples being denied the skills and power required to manage the dominant culture and to make self-management a reality (Tonkinson 2007). Nevertheless, a number of reforms were instigated during this era that significantly changed the status of Aboriginal peoples in Australian society. The 1967 referendum, which led to the recognition of Aboriginal peoples as citizens and the provision of legislative power by the federal government, enabled the development of national and community controlled health, education, housing and employment programs and the removal of some of the restrictions over daily life (Austin & Parry 1998).

During the mid-late 1990s, a number of inquiries were held into key issues, such as deaths in custody and the Stolen Generations (Australian Human Rights Commission 1997), which I describe in section 2.3. Public attention was drawn to Aboriginal issues through a number of public events and pressure mounted for improvements to meet basic needs (Eckermann 2010). In 1992, the Mabo decision by the High Court of Australia was integral in the recognition of Aboriginal people's rights, as their unique connection to land was acknowledged. This decision debunked the myth of Terra Nullius and paved the way for the establishment of the Native Title Act, which allowed claims by Aboriginal peoples over traditional lands (Eckermann 2010). A formal national apology to the Stolen Generations by the Australian Parliament in 2008 also played an important role for some in validating the pain and suffering experienced by Aboriginal peoples.

Whilst these reviews and policies recognised some of the injustices served on Aboriginal peoples, they have not led to significant policy or constitutional changes to acknowledge Aboriginal peoples or to address ongoing harm (Reilly 2009). Major Aboriginal policies, such as Close the Gap (Commonwealth of Australia 2019) are presented in a deficit approach and fail to acknowledge the ongoing impacts of colonisation and the resilience of Aboriginal peoples to the imposed conditions (Nguyen & Cairney 2013). This, paired with the enactment of discriminating policies such as the NT intervention, which I discuss below, supports the claim that policies continue to be enacted to manage and control Aboriginal people and to protect the power, resources and 'rights' of the colonising group (Crotty 2018). This is reflected in the closing words of the Uluru Statement from the Heart "tell plainly the structural nature of our problem. This is the torment of our powerlessness" and is cited as a reason for the lack of action in addressing inequities (Referendum council 2017). This statement was rejected by federal parliament.

2.2.1.1 Contemporary Policies in the NT

A recent policy impacting significantly on remote communities in the NT, including the study community, was the Northern Territory Emergency Response Act 2007 (NTER) (Australian Government 2011a), a controversial policy implemented by the Australian government of that time in response to the Ampe Akelyernemane Meke Mekarle “Little Children are Sacred” report into child sexual abuse (Northern Territory Government 2007). The policy led to the suspension of the Racial Discrimination Act in relation to included measures in the prescribed communities and introduced a range of actions including quarantining of income to purchase basic necessities, health checks for children and store licensing schemes to improve food quality and store management (Australian Government 2011a; Australian Human Rights Commission 2011).

A diversity of opinions regarding the NTER, in particular income management, are cited in the literature (Australian Government 2013a; Central Land Council 2008). Critics state that there was a lack of community consultation prior to the introduction of the policies, which were applied as blanket measures that failed to address individual community concerns, were culturally inappropriate and failed to provide education or skills to break the cycle of intergenerational abuse; thereby leading to a reduced autonomy of Aboriginal peoples (Central Land Council 2008). Submissions to the review of the NTER revealed feelings of despair, hopelessness and worthlessness throughout entire communities and 74% of respondents reported that income management had not improved their capacity to care for their children, with determinants such as high food costs and overcrowding issues, which are experienced in the study community, not addressed by the scheme (Central Land Council 2008).

Positive descriptions of the NTER include reports of improved control of money with less harassment and humbugging, increased contribution of male family members to food budgets, reduced alcohol purchasing, lower participation in gambling, better food quality and enhanced store infrastructure and standards (Australian Institute of Health and Welfare 2009; Central Land Council 2008; Hudson 2010). While improved food purchasing patterns were reported by two thirds of store managers interviewed by the Australian Institute of Health and Welfare (2010), these results were disputed by Brimblecombe et al. (2010) who suggested that there was no improvement in fruit, vegetable or soft drink sales at ten community stores across the Top End of the NT. The child health check component of the NTER also received positive feedback from community members (Australian Institute of Health and Welfare 2009; Central Land Council 2008) despite the limited implementation of the initiative due to inadequate workforce and health infrastructure (Australian Institute of Health and Welfare 2009).

The NTER Act was repealed in 2012 and the Racial Discrimination Act reinstated. Whilst some of the activities outlined in the NTER were abandoned, the updated Stronger Futures in the Northern Territory Act (Australian Government 2011b, 2012a), which remains in place, maintained some activities such as the stores licencing scheme. Other strategies such as income management have been altered and incorporated into social security policies which apply to all people receiving welfare benefits.

2.2.2 Pervasive social discourses of dominance and privilege

As I discussed above, the application of protectionist policies established the dominance of the colonising group and a subordinate social position for Aboriginal peoples, as non-Aboriginal people gained control over the lives of Aboriginal peoples and social discourses of inferiority became ingrained and pervasive across all societal groups (Griffiths et al. 2016). These ideologies infiltrated the beliefs of individuals and created practices at institutional levels that continue to marginalise, discriminate against and oppress Aboriginal peoples (Layne 1997 in Durey & Thompson 2012).

The commonly used societal definition of Aboriginality is based on a biological view of racial characteristics and has been cited as leading to the dehumanising of Aboriginal peoples as culturalist perceptions of primitive peoples are applied across society creating stereotypes of deficit (Sherwood 2013). These discourses combine with neoliberal discourses of individuality and lead to the labelling of Aboriginal peoples as problematic, dysfunctional and deviant, and the inequities experienced by marginalised groups as the responsibility of the individual (Sherwood 2009).

It is through this racism that colonial structures maintained and reinforced privileged access to resources and power by non-Aboriginal people (Paradies 2016; Sherwood 2013), creating inequities that infiltrated and became embedded across mainstream societal systems as they influenced policies and practices at inter-personal and institutional levels (Sherwood 2009, 2013; Vickery et al. 2007). This contributes to systematic or structural violence, which is the embedding of policies and actions into social structures and institutions, that act to marginalise, oppress or discriminate against people, thereby preventing them from reaching their full potential. The presence of these policies and actions becomes normalised by the dominant group over time and as such are almost invisible (Farmer et al. 2006). As argued by Gubba and Lincoln 1989 in Sherwood (2013), these social constructs, once entrenched, are very difficult to transform, hence several authors have argued that decolonising approaches to research and practice, that create awareness of the continuing persistence and historical formation of these problematic discourses and ideologies are required (Mackinlay & Barney 2014; Sherwood 2013; Sherwood & Edwards 2006; Vickery et al. 2007).

2.2.3 Historical impacts on families and parenting

The government policies and organisational practices that forcibly separated children from their families continued until the 1980s, and arguably beyond, with an estimated 10-33% of Aboriginal and Torres Strait Islander children being taken from their families during the period 1910-1970 (Australian Human Rights Commission 1997). The generations of families impacted by these practices, known as the “Stolen Generations”, suffered profound and lasting impacts, not only on psychological health outcomes but also Aboriginal cultural identity and traditions (Haebich 2000). The resulting intergenerational trauma has been associated with widespread impacts including instability in housing and relationship circumstances and increased legal convictions and use of illicit substances (Australian Human Rights Commission 1997). The denigration of families also impacted on family structures, kinship and marriage lines, which in turn affected the transference of parenting skills; and on the roles and responsibilities of family members with related impacts on the nutritional and economic foundation of societies (Australian Institute of Health and Welfare 2012; Taylor, Schmitt & Roy 2003).

2.2.4 Historical impacts on dietary practices

There is no evidence that Aboriginal peoples experienced chronic diseases such as diabetes prior to the colonisation of Australia (Naughton, O’Dea & Sinclair 1986). As such, the current health status of Aboriginal Australians has been attributed to the adoption of Western diets and lifestyles following displacement from traditional lands, the destruction of traditional food sources and the loss of cultural practices related to food gathering and production, during and post colonisation (Lee 1996; Lee, O'Dea & Mathews 1994; Thomson 1991). I summarise the impacts of these factors on dietary patterns of Aboriginal peoples in Figure 2.3 which highlights the forced reliance on low nutritional value but easily stored ration style foods, related to these early settlement practices.

It is important to recognise that whilst the impacts of colonisation on access to a traditional diet and transition to a Western diet are acknowledged in the literature, the dietary intakes of Aboriginal peoples are generally presented in terms of their nutritional value, assessed through a medicalised lens of health and nutrition. Similar to other health data, which I discuss later in this chapter, the dietary intakes of Aboriginal peoples are commonly labelled as ‘poor’, compared as deficits to the diets of non-Aboriginal people and descriptions fail to acknowledge the context in which foods are consumed and determinants of their origins.

Pre-colonisation

Complex ecological food environment (1,2,3)
Food embedded into all aspects of life (4), food and life seen to be 'in balance' (5)
Acquisition, preparation and sharing of food and food related knowledges based on kinship obligations and traditional practices/beliefs (6) reciprocity and affirmation of relationships (7)
Local and seasonal (8,9) vegetarian subsistence diet supplemented with animal and high energy foods when available (10, 11) leading to a diet low in energy, high in complex carbohydrates and micronutrients (12, 13)

Dispossession from lands and resettlement onto reserves and missions

Food based rations provided in place of wages, communal dining rooms at missions

Early Settlement

Limited access to traditional food sources- prohibited access to traditional lands, restrictions placed on participation in cultural activities, environmental degradation, depletion of resources (14), dependence on provided food sources (6). Traditional foods were used to balance and supplement provided foods (5)

Separation of family and kinship groups- loss of traditional food related knowledge and skills (15, 16, 17), limited observation and role modelling of traditional food practices (5), restrained knowledge sharing and cultural activities associated with food, altered roles related to food (5, 7,14)

Provision of monotonous, low quality diet based on white flour, sugar and tea (18) which may have been supplemented with salted meats or offcuts (19). Limited access to vegetables, white flour replaced seeds and tubers as main energy source. Access to provided foods often inadequate and variable (5, 20)

Food access and experiences increasingly associated with colonised diet, food knowledge and skills associated with new foods

Contemporary Eating Patterns

Literature describes the contemporary diet as high in energy (21, 22), fat and refined sugar and low in fruits, vegetables, fibre and micronutrients (17, 21, 22, 27) with average diets based on staple foods of white bread, sugar and fatty meats (21, 22, 27)

Traditional foods are reported to account for less than 20% of the diet (17, 21) but are reported to be regularly consumed in some communities (23) and play a key role in cultural practices and identity (24) and in food security (23)

Contemporary diet reported by some Aboriginal people to be 'out of balance' leading to ill health (5)

Determinants of these contemporary eating patterns may include:

- an imposed food structure (27)
- generational transmission of food preferences, experiences and knowledge of ration era food sources (27)
- restricted access to and transmission of traditional food knowledge and skills (5,16)
- poor access to adequate food storage and preparation facilities (17, 21,25)
- limited variety, high cost and poor quality foods available in community stores (26)
- inequitable access to employment and income which lead to food choices that are non-perishable, easy to prepare, low cost and filling (26)

Figure 2.3 Historical influences on diet

References for Figure 2.3:
(1)(Kerwin 2006) (2) (Gammage 2011) (3) (Pascoe 2014) (4) (Merne Altyerre-ipenhe (Food from the Creation time) Reference Group, Douglas & Walsh 2011) (5) (Brimblecombe et al. 2014) (6) (Gould 1967) (7) (Stacy 1975) (8) (Cleland & Johnson 1933) (9) (Campbell 1939) (10) (O'Dea 1991)
(11) (McArthur, McCarthy & Specht 2000) (12) (Rose 1985) (13) (National Health and Medical Resarch Council 2000) (14) (Shannon 2002) (15) (Berndt & Berndt 1970) (16) (Hamilton 1981) (17) (Wahlqvist et al. 1991) (18) (Rowse 1998) (19) (Nettlebeck & Foster 2012) (20) (Smith 2000) (21) (Kouris-Blazos & Wahlqvist 2000) (22) (Lee, O'Dea & Mathews 1994) (23) (Ferguson et al. 2017)
(24) (Dussart 2009) (25) (Reid & Trompf 1991) (26) (Brimblecombe & O'Dea 2009)
(27) (Brimblecombe, Ferguson, Liberato & O'Dea 2013)

Colonisation significantly impacted on the availability of traditional foods, as not only were Aboriginal peoples denied access to lands and often prohibited from participating in cultural activities, but the use of land for farming and the demand on resources near settlements, irreversibly altered the environment, destroying traditional food stocks (Australian Government 1986). In addition, the traditional food system was part of a wider cultural and social framework and the destruction of family groups altered kinship systems and the sharing of cultural knowledge, which further inhibited the use of traditional foods (Australian Government 1986; Brimblecombe et al. 2014).

As colonised settlement spread across Australia and Aboriginal peoples were resettled away from their homelands; rations of white flour, sugar, tea and occasionally other foods were provided as a form of compensation and a means of controlling Aboriginal peoples (Rowse 1998). Intergenerational eating patterns, food access and cost, and poor quality or non-existent housing infrastructure led to a continuing reliance on these cheap, processed and non-perishable foods for remote community members today (Brimblecombe 2007). Reports describe current diets as low in nutritional quality, high in refined carbohydrates, sugars and salt and low in fruits, vegetables, fibre and various micronutrients (Brimblecombe, Ferguson, Liberato & O'Dea 2013; Lee, O'Dea & Mathews 1994; Whalan et al. 2017).

There are varying reports of the contribution of traditional bush foods to contemporary diets and this is likely to vary significantly by location. Older studies report that non-store foods contributed to 5-20% of the energy intakes of most Aboriginal Australians (Cutter 1978; Fisk 1985; Lee, O'Dea & Mathews 1994). A recent study by Ferguson et al. (2017) indicated that non-store foods continue to represent a significant part of the current diet of Aboriginal peoples living in remote communities in the NT. 87% of interviewees in this study, stated that they consumed gathered foods on a fortnightly basis, with 71% of these people reporting that they consumed these foods at least weekly. Whilst their nutritional contribution to the diet may be unknown, traditional foods continue to contribute significantly to social and cultural practices and to cultural identity, connection to country and spirituality (Campbell et al. 2011; Poroch et al. 2009; Scelza, Bird & Bird 2014). They may also play a significant role in the management of food insecurity (Ferguson et al. 2017).

2.3 The contemporary health status of Aboriginal peoples

The way health is perceived and defined influences the acceptance of correlations between health inequities and social and historical determinants such as colonisation (Griffiths et al. 2016). Health beliefs therefore frame how health services are provided, as well as the actions that individuals take to influence their health (Rosenstock, Strecher & Becker 1988). In this and the following sections on child health status, I present data on the contemporary health status of Aboriginal peoples as described by government statistics. As I describe in Chapter 4, Australian health service provision is based on Western, individualised and biomedical constructs of health that focus on the diagnosis and treatment of symptoms and the prevalence of specific diseases and conditions of ill health (Blas & Kurup 2010; Nguyen & Cairney 2013). This data informs service planning and evaluation and therefore provides context to this research. However this knowledge presents only one view of health, which acts to oppress Aboriginal definitions of health which are more holistic (Taylor 2008). This has wider impacts on access to culturally appropriate healthcare.

This type of data also acts to highlight increased risk amongst some (often marginalised) social groups and through a focus on health behaviours, it directs attention to the actions or inaction of individuals from these groups, who are often labelled as deviant (Brady & Gingras 2019). A moral imperative is then placed on the individual to want to participate in health promoting behaviours, without consideration for the structural and societal factors that influence opportunities for health and wellbeing and largely account for inequitable differences in health outcomes. As such, reports containing this data have been criticised for their medicalised approach which acts to discriminate against people from minority groups (Brady & Gingras 2019; Lordly, Lövestam & Ruhl 2019; Neumayer 2013; Prout 2011; Taylor 2008; Yu 2012).

There is a clear lack of genuine engagement with Aboriginal peoples in the development of health services and health data, which do not present alternate views of health to the biomedical model (Nguyen & Cairney 2013; Yu 2012). This is argued as a key reason why interventions have failed to address inequitable health outcomes. A number of authors have called for an extension of constructs of health to incorporate alternative views of health so that innovative and strength based approaches that highlight the importance of community participation and leadership can be developed (Ganesharajah 2009; Neumayer 2013). There has been some positive movement towards the consideration of the impacts of colonisation on health outcomes and some alternative measures for health outcomes, such as cultural participation have been included in more recent datasets (Australian Bureau of Statistics 2016a). However, this knowledge needs to be fore fronted in future research and in health policies and programs. Therefore, I open this section by providing an overview of Aboriginal perceptions of health and wellbeing, with acknowledgement that these perceptions vary between groups and are subject to change due to time and circumstance.

2.3.1 Constructs of health and wellbeing

As discussed above, Western constructs of health focus on physical health and the absence of disease (WHO 2005). This view of health guides biomedical models of health that concentrate on the individual and the diagnosis and treatment of bodily anomalies or problems, it does not situate the individual within a wider social setting and ignores many of the determinants of health that I discuss in section 2.5 (Neumayer 2013).

Aboriginal notions of health are diverse and likely to vary over time, however, are generally described as holistic with health considered as a construct that aligns more closely with concepts of wellbeing:

> ‘Aboriginal health means not just the physical wellbeing of an individual but refers to the social, emotional and cultural well-being of the whole community in which each individual is able to achieve their full potential as a human being thereby bringing about the total wellbeing of their community.’ (National Aboriginal Health Strategy Working Party 1989)

The identity and wellbeing of Aboriginal peoples is tied to complex inter-connections to land, cultural practices, spirituality and social practices, including rules and responsibilities related to each of these dimensions and to the ownership and exchange of resources (Ganesharajah 2009; Gee et al. 2014; Kingsley et al. 2013). Connection to each of these aspects of health cannot be separated, therefore the wellbeing of an individual is embedded in the health of the wider community or the land. Descriptions of health by Aboriginal peoples rarely separate health issues from their causes. These are often related to interconnected social, political and historical issues experienced by the community and the daily realities of life (Morrissey et al. 2007; Tynan et al. 2007; van Holst Pellekaan & Clague 2005).

In section 2.5 I discuss the determinants of health for Aboriginal peoples, including broader concepts of these factors broadly known as the Indigenous determinants of health. I apply these concepts to a new framework that better situates these determinants to align with Aboriginal notions of wellbeing. This knowledge showcases that broader concepts of health, beyond biomedical, are needed in order to form collaborative partnerships with Aboriginal peoples and communities, so that health interventions can respond to the priorities of Aboriginal peoples, empower local communities and reduce experiences of racism, marginalisation and discrimination (Cairney et al. 2017).

2.3.2 An inequitable burden of preventable diseases

Many Australians enjoy a level of health that matches or exceeds the average health status of other comparable countries, however, not all Australians enjoy such good health (Australian Institute of Health and Welfare 2018). As I previously described, the life expectancy of Aboriginal and Torres Strait Islander Australians is 8-9 years lower than that of non-Indigenous Australians. This is related to a higher rate of mortality across all age groups and for all causes of death, particularly for people aged less than 65 years of age (Australian Indigenous HealthInfonet 2019; Australian Institute of Health and Welfare 2016b). The enormity of the burden of disease on the Aboriginal population is reflected in the 429 years of life lost due to premature death or living with disease for every 1000 Aboriginal and Torres Strait Islander peoples. This is 2.3 times that of the non-Indigenous population (185 years) (Australian Institute of Health and Welfare 2016b). Figure 2.4 illustrates that most of the burden of disease experienced by Aboriginal peoples is attributable to preventable chronic diseases such as diabetes and cardiovascular disease, which contribute to 64% of the total disease burden and account for more than two thirds (70%) of the health gap between Aboriginal and Torres Strait Islander peoples and non-Indigenous Australians (Australian Institute of Health and Welfare 2016b). These chronic conditions occur earlier in life and are more severe than in non-Indigenous populations leading to a greater long-term health burden (McDonald & Russ 2003).

Figure 2.5 demonstrates that the risk factors for chronic disease are common to the major diseases and contribute to more than 80% of the years of life lost (Australian Institute of Health and Welfare 2016b). This indicates that addressing these factors could prevent a significant proportion of the burden of disease. However, these risk factors do not include the broader influences on health, such as the social determinants of health (which I address in section 2.5), of which they are often a response. The World Health Organization has estimated that 80% of the most common chronic diseases (diabetes and cardiac disease) are avoidable with actions that address the SDoH, provide access to timely and effective healthcare and reduce lifestyle risk factors (Willcox 2014).

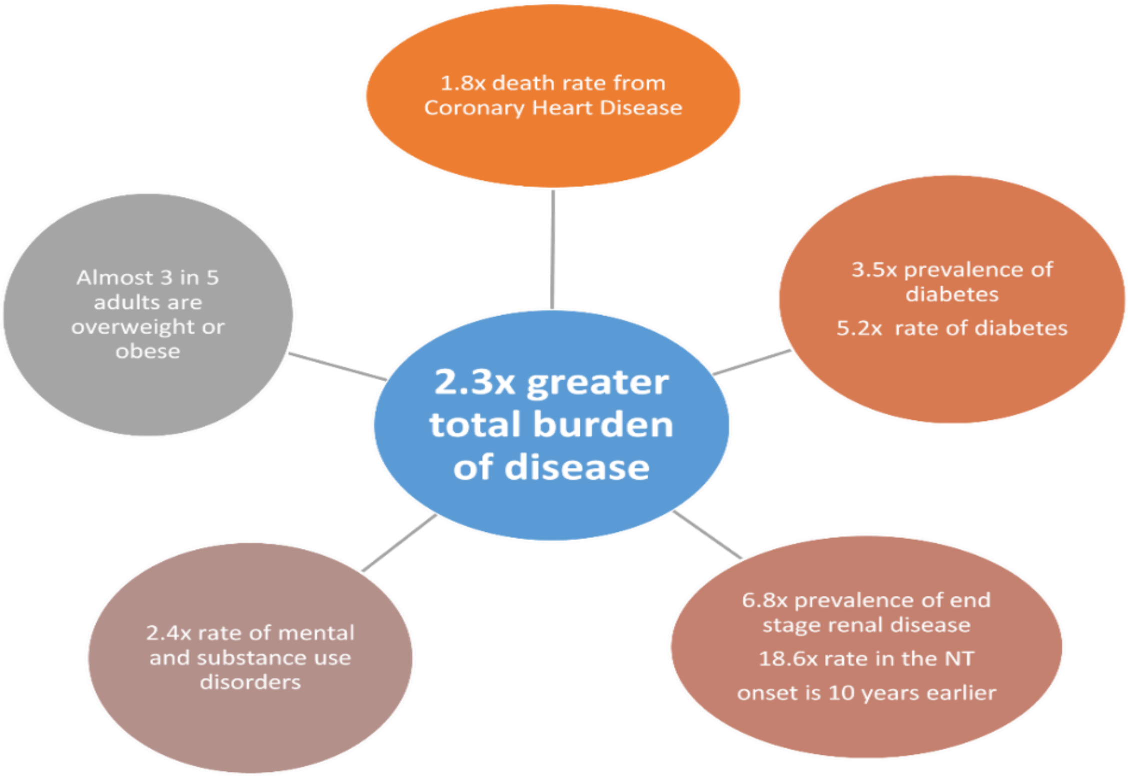


Figure 2.4 Disproportionate burden of disease experienced by Australian Aboriginal Peoples

(Australian Indigenous HealthInfonet 2019; Australian Institute of Health and Welfare 2016b; Chondur, Georges & Guthridge 2015; McDonald & Russ 2003)

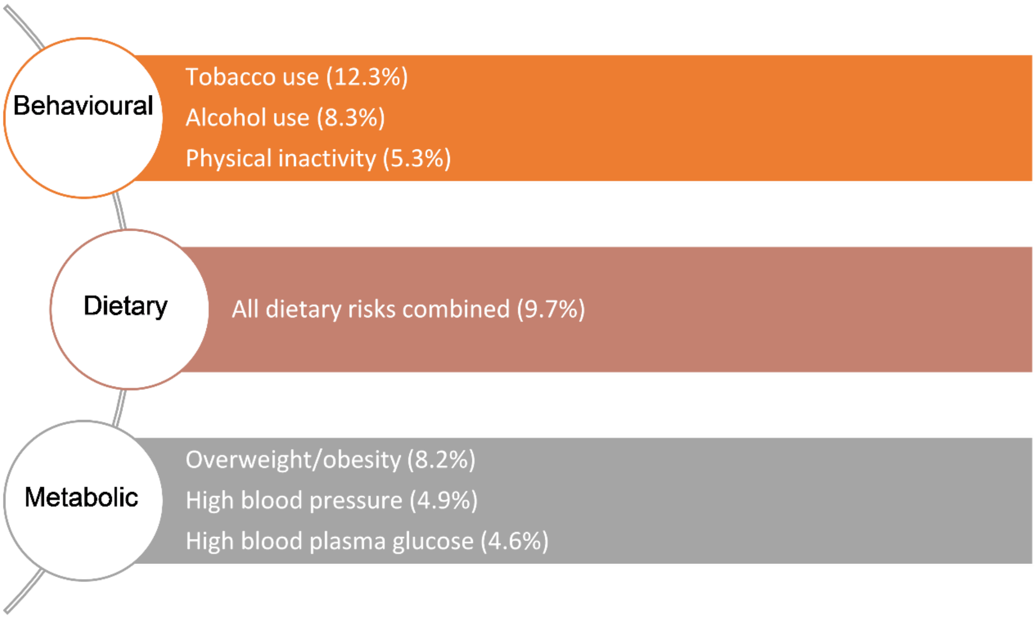


Figure 2.5 Proportion of disease burden attributable to risk factors

(Australian Institute of Health and Welfare 2016b)

2.4 The health of Aboriginal children

The data describing the health of Aboriginal children, as presented in mainstream reports, is also dominated by a biomedical view of health which frames the health status of Aboriginal children with a deficit lens. I present this data, with acknowledgement of this view, in the section below as it reflects the health concerns at which health resources and the actions of health professionals are likely to be targeted. It also highlights the inequities in health outcomes experienced by Aboriginal children, supporting the argument for an increased focus on appropriate health promotion in the early years of life. However, when reporting this data, I recognise its alignment with the dominant viewpoint, which may not be reflective of the views and concerns of Aboriginal peoples.

From birth, Aboriginal children are reported to be disadvantaged across a broad range of health, development and wellbeing indicators (Australian Institute of Health and Welfare 2011b), which I summarise in Figure 2.6. The prevalence of adverse health outcomes are allegedly increased for children living in remote communities in northern Australia (Brewster & Morris 2015). Much of this burden of disease is associated with infectious diseases (particularly gastrointestinal infections), blood and metabolic conditions (including malnutrition) and respiratory diseases that contribute to more than two thirds (67%) of the non-fatal burden of disease for Aboriginal and Torres Strait Islander children under 5 years of age (Australian Institute of Health and Welfare 2016b). This leads to 5 times the rate of attendance at health services and hospitals compared to their non-Indigenous counterparts (Clucas et al. 2008; Stanley, Sanson & McMichael 2002). Increases in hospitalisation rates for Aboriginal and Torres Strait Islander children between 2004/5 to 2009/10 indicate a widening of the health gap (Australian Institute of Health and Welfare 2013b), as health insults in early life may cause long term damage to some organs or increase the risk of other diseases impacting on health later in life (Marquardt 2014; Torzillo & Chang 2014). Frequent illnesses in early childhood are also likely to impact on child development and school readiness (Hendrickx et al. 2018), further influencing other social determinants of health.

Figure 2.6 Health concerns of Australian Aboriginal children as described in mainstream reports

2.4.1 A changing health profile

Growth is a key indicator of a child’s health status, a normal growth pattern is seen through a biomedical lens to represent good health or an absence of disease and is greatly influenced by the adequacy of a child’s nutritional intake (Lifshitz 2009). I acknowledge that alternate concepts of growth, which differ significantly from those of health professionals, have been reported for some Aboriginal people living in the Top End of the NT (Smith et al. 2003) and it is likely that other views exist amongst different groups of people. These alternate views of growth are rarely documented in the literature, indicating a dominance of the biomedical view. However, this dominance should not indicate that this view is of more value than other concepts and further research is needed to present alternative perceptions that may be of more relevance to people and communities. For the purposes of this literature review, I presented the reported influences of growth and nutrition on child health outcomes to provide context as to the concerns and determinants of child health, as perceived by health professionals and health services.

2.4.1.1 Undernutrition

Underweight (low weight for age) and wasting (low weight for height) are associated with short term inadequacies of dietary energy and protein. If these deficits persist, particularly during periods of rapid development, growth will continue to falter leading to stunting (low height for age) (Richard, Black & Checkly 2012).

Patterns of growth faltering for Aboriginal children, occurring from around the time of the commencement of complementary foods (in addition to breastmilk or infant formula) and continuing over the first years of life, have been documented by numerous studies from the 1960s to the end of the 21st century (Bambrick 2003; Dugdale, Muller & Alsop-Shields 1994; Gracey, Andersen & Brooks 1989; Gracey et al. 1983; Gracey & Sullivan 1988; Jose & Welch 1970; Martorell 1999; Maxwell & Elliott 1969; Paterson, McKinnon & Edmond 2001; Rousham & Gracey 1997, 1998; Smith et al. 2000). These growth patterns indicate a prevalence of undernutrition for young Aboriginal and Torres Strait Islander children (aged between one and four years of age) up to forty three times that of non-Indigenous children (Grant 2008) and has led to frequent growth monitoring and intervention activities by health services.

Despite these interventions, Table 2.2 illustrates that there has been only a small reduction in the prevalence of chronic growth faltering/stunting over recent decades. Current rates of stunting, at around 14%, with a peak prevalence of 22-26% in children under one year of age (Northern Territory Department of Health 2016), are significantly greater than the expected population norm of 2% (WHO & UNICEF 2009).

Table 2.2 Prevalence of stunting and anaemia in children <5 years of age Northern Territory

	Stunting prevalence	Anaemia Prevalence		Community and Year
5%	14%	20%		All remote NT communities 2016
7%	14%	24%		All remote NT communities 2012
13%	9%	22%		All remote NT communities 2009

Underweight= weight for age <-2 z score; stunted= height for age <-2 z score
Anaemia= Hb<105g/L (6-11mo) and <110g/L (1-4yo)

(Northern Territory Department of Health 2009, 2012, 2016)

Whilst nutritional deficiencies are a key cause of growth faltering, the high prevalence of infections as described above, and the synergistic relationship of recurrent infections and elevated immune function (which increase caloric requirements for children, reduce appetite and can impair absorption of nutrients), have been attributed as the major factors leading to growth faltering in Aboriginal children (Brewster & Morris 2015; King, Smith & Gracey 2009; Urlacher et al. 2018).

Worldwide iron deficiency anaemia has been declared a moderate to severe public health problem, especially amongst Indigenous people (Khambalia, Aimone & Zlotkin 2011). Adequate iron intakes in early childhood are crucial for brain development, however iron deficiency is prevalent amongst children aged from birth to two years of age due to the high demand for iron during periods of rapid growth and development (Booth & Aukett 1997). Table 2.2 illustrates that anaemia is widespread among children living in the NT with some studies suggesting that almost half (41%) of all infants aged between 12-18 months of age are anaemic, and that 90% of children experience at least one episode of anaemia between six months and two years of age (Acquino et al. 2013). The table also illustrates that there has been minimal improvement in anaemia prevalence in the NT over recent years. The lack of change in this health data may reflect the dominance of medical approaches which do not align with community perceptions of the issues.

Biomedical understandings place stunting and iron deficiency anaemia amongst the four greatest risks to child development (Walker et al. 2007). These conditions are often clustered amongst the same family and community groups and lead to longer term impacts on cognitive function and increased morbidity and mortality. Lasting effects persist into adulthood, ultimately impacting on physical capacity, educational achievement and social skills, which limit future economic potential and associated determinants of health (Martorell 1999; Victora et al. 2008). Effects may also be transmitted to the next generation with lower birth weight and nutritional status of babies born to mothers who were malnourished as children (Victora et al. 2008). Given that growth faltering and anaemia occurs within the first months of life and its effects are largely irreversible after two years of age, Martorell (1999) argues that efforts must be made to optimise growth and development in the first two-three years of life if the public health consequences of these conditions are to be avoided.

2.4.1.2 Emerging over/malnutrition

Whilst undernutrition remains a key health concern amongst Aboriginal children in remote communities in Australia, there is a new emergence of childhood obesity. This is leading to a double burden of disease, similar to that seen in developing countries, as communities have increasing exposure to the effects of the commercialisation of food and rapidly changing, sedentary lifestyles (Foliaki 2003; Gracey 2007).

Table 2.3 illustrates that children living in the NT have a slightly lower prevalence of overweight and obesity compared to the Australian population, however, almost one quarter of all children are classified as overweight or obese (Chondur, Georges & Guthridge 2015). Rates are currently reported to be lower in remote areas compared to urban areas and an unpublished study in Central Australia (A. Hill, personal correspondence) reported that rates currently vary significantly by community for school aged children.

Table 2.3 Prevalence of childhood obesity in Australian Aboriginal children

	Australian population	**Australian Aboriginal population**	**Northern Territory**	**Central Australia**
2-4-year old's	20% (1)	17% (around 5 years of age) (2)	No data	No data
2-14-year old's	27% (1) (25% non-Aboriginal children) (1)	30% (1)	23.5% (3) (2-17-year old's)	21.5% (4) (5-15-year old's)

NOTE- Data is reported by varying age groups across regions and population groups.

(1)(Australian Institute of Health and Welfare 2017b); (2) (Thurber, Boxall & Partel 2014); (3) (Chondur, Georges & Guthridge 2015) (4) (Schultz 2012)

Obesity has been shown to persist through the childhood years into adulthood, leading to a greater risk for the early development of chronic diseases, such as diabetes and cardiovascular disease (Haysom et al. 2009; Sahoo et al. 2015). Increasing rates of obesity in remote communities could therefore have significant impacts on further widening the health gap as more children are placed at risk of the early development of chronic disease.

The age of onset of chronic disease is significantly younger in Aboriginal populations and the incidence of chronic disease and pre-indicators of disease amongst Aboriginal youth are rising (Haynes et al. 2016). Some children as young as five years of age are diagnosed with type 2 (previously known as adult onset) diabetes (McMahon et al. 2004) and by adolescence Aboriginal youth are experiencing diabetes at rates six to twenty times that of non-Indigenous youth (Craig et al. 2007; Haynes et al. 2016). Studies suggest that youth onset conditions, like diabetes, progress more rapidly and are more difficult to treat. Therefore, the early onset of these conditions and their risk factors, indicate that the prevalence of chronic diseases and the higher rate of complications from these conditions, will continue to rise if effective preventative actions are not taken early in life (Titmuss et al. 2019).

2.5 The determinants of health

There has been a tendency among health professionals to focus on lifestyle risk factors and biological anomalies as the cause of ill health and health inequities in communities (Baum 2008). This is particularly the case for those working with Aboriginal peoples (Fogarty, Bulloch, et al. 2018; Peachey, McBain & Armstrong 2006). Behavioural factors do contribute substantially to the burden of disease and dietary behaviours that are not aligned with the recommendations of peak health bodies have been associated with growth concerns, obesity and micronutrient deficiencies in children (Krasevec et al. 2017; Rousham & Gracey 1997; World Health Organization 2003a) and an increased risk of chronic diseases in adults (National Health and Medical Resarch Council 2013b; Wang et al. 2014; World Health Organization 2003a). As such, the Australian Institute of Health and Welfare (2018) estimated that changes to address modifiable risk factors, including consuming a diet that aligns with the Australian Dietary Guidelines, could reduce Australia’s total disease burden by one third.

A significant and compelling body of research however has shown that health status and its associated health behaviours, are influenced much more broadly by a complex and inter-related range of social, political, environmental, socio-economic and cultural characteristics known as the Social Determinants of Health (SDoH) (Commission on the Social Determinants of Health 2008; King, Smith & Gracey 2009; Phelan, Link & Tehranifar 2010). In section 2.5.1, I describe the original concept of the SDoH, which has been widely integrated into health professional training and is referenced in a number of health policy documents. This concept is therefore likely to represent health professional's perceptions of the SDoH. These determinants have been reported to apply to all population groups, with some authors arguing that the determinants hold specific significance for Aboriginal health (King, Smith & Gracey 2009) and are responsible for between one third and one half of the health gap between Aboriginal and Torres Strait Islander and non-Indigenous Australians (Booth & Carroll 2005; DSI Consulting Pty Ltd & Benham 2009; Zhao et al. 2013).

The SDoH has prompted a movement beyond biomedical understandings of health, that incorporates some aspects of a more holistic view of health. It has also been integral in creating an awareness of the causes of health inequities and deficits. The dominance of Western views and constructs in the original model and its application to Aboriginal health has however been criticised (Dunbar & Scrimgeour 2007; Morrissey et al. 2007) and alternate ways of understanding key determinants such as education and employment have been identified (Nguyen & Cairney 2013). Further, the original concepts of the SDoH do not recognise the Indigenous specific determinants of colonisation, racism, cultural participation and family connection, that as I discussed in section 2.6 are encompassed in Aboriginal constructs of wellbeing (Carson et al. 2007; Vickery et al. 2007). In recognition of these limitations I utilise a recently developed wellbeing framework in section 2.6 to discuss the interplay between the Indigenous determinants of health that have been prioritised as the key factors influencing wellbeing and health outcomes for Aboriginal peoples in Central Australia, and the original concepts of the SDoH (Cairney et al. 2017).

2.5.1 Original concept of the social determinants of health

The traditional SDoH framework developed from the work undertaken by Marmot and colleagues (Wilkinson, Marmot & World Health Organization Centre for Urban Health 1998) has been adapted into a variety of frameworks over time. Numerous researchers have stated that an understanding of these determinants is crucial for action on health inequalities (Baum 2002; Blas & Kurup 2010; Commonwealth of Australia 2013; Marmot 2005; Priest et al. 2012). The SDoH have been found to apply to all disease types including infectious, genetic and metabolic disease (Cockerham, Hamby & Oates 2017; Holtz et al. 2006; Phelan, Link & Tehranifar 2010; Solar & Irwin 2010).

The SDoH are described as:

> '…the circumstances in which people grow, live, work, and age, and the systems put in place to deal with illness. The conditions in which people live and die are, in turn, shaped by political, social, and economic forces' (Commission on the Social Determinants of Health 2008).

Figure 2.7 represents a frequently applied framework of the SDOH which showcases action of the determinants across a number of levels from the individual to the socio-political context. There has been a call for health actions to focus more on the upstream determinants of income and education (Baum 2007; Carey et al. 2016; Loxterkamp 2015), which has been integrated into some policy documents. However, there has been little action by governments to address these determinants (Brown, Thurecht & Nepal 2012). This is mostly attributed to their complexity and the fact that many of the determinants lie outside of the direct realm of health requiring multiple agency and cross-sector responsibility and collaboration (Baum et al. 2013; Carey, Crammond & Keast 2014). These partnerships however are a key principle of primary health care.

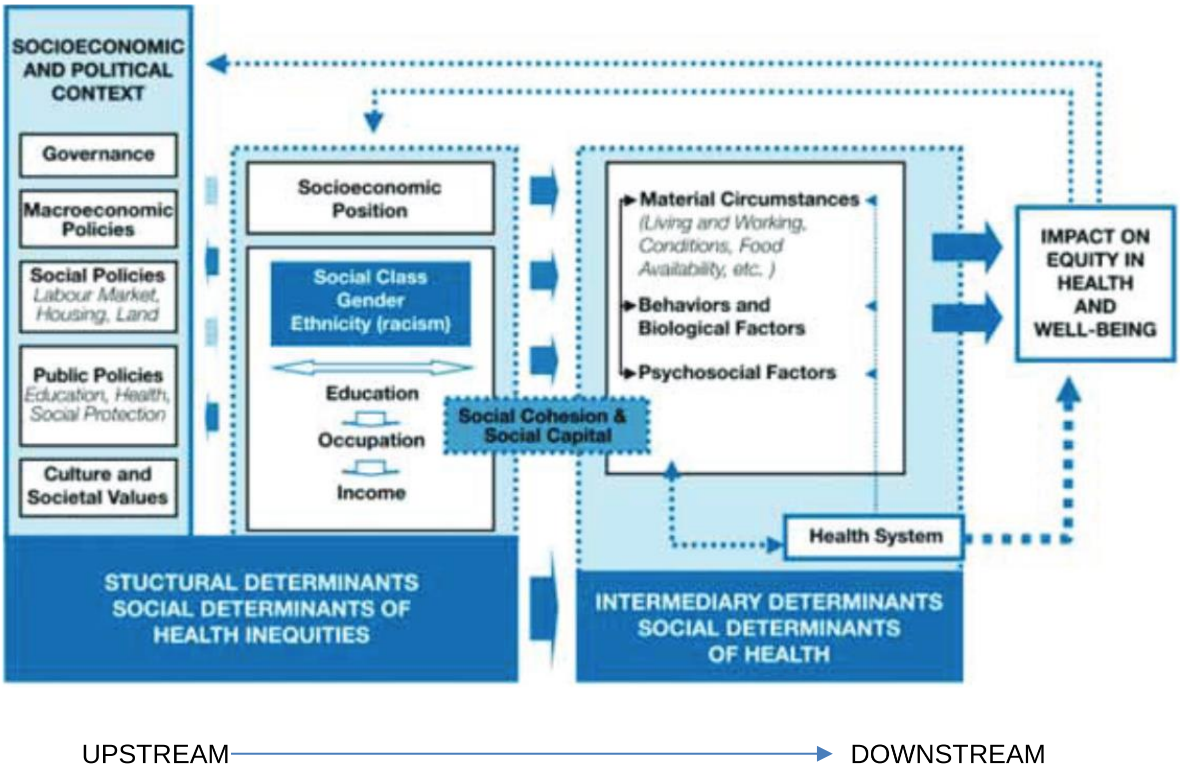


Figure 2.7 The social determinants of health

(Solar & Irwin 2010) Final form of the CSDH conceptual framework

https://www.who.int/sdhconference/resources/ConceptualframeworkforactiononSDH_eng.pdf

2.6 Indigenous determinants of health

The original concept of the SDoH has been extended to recognise important determinants such as the positive role of connection to family, community and culture on health outcomes and the negative impacts of colonisation and resulting racism and social inequities, that are not captured in the original concepts of the SDoH. These Indigenous determinants of health were originally proposed by Carson et al. (2007), with recent studies highlighting the priority of Indigenous determinants for Aboriginal peoples (Nguyen & Cairney 2013). I used the Interplay wellbeing framework developed in Australia (Cairney et al. 2017) to reframe knowledge on the SDoH to better reflect Aboriginal priorities, as it utilises culturally defined determinants based on the original determinants of social position (work and education) and health, but forefronts Indigenous determinants of culture, community and empowerment.

Figure 2.8 The Interplay wellbeing framework

(Cairney et al. 2017) CC BY 4.0 https://equityhealthj.biomedcentral.com/articles/10.1186/s12939-017-0563-5

2.6.1 Work and education: social position

The focus of the original SDoH is mainly based on the social position of an individual and community as determined by level of education, occupation/employment and income. These are often cited as the root of inequity and the most important determinants of health (Anderson, Baum & Bentley 2007; Australian Institute of Health and Welfare 2016a; World Health Organization 2003c); particularly for populations who are reliant on social support and other publicly funded services (Anderson 2007). Social position is shaped by higher level policies that influence access to resources, power and privilege by different groups in society (Solar & Irwin 2010). It is therefore closely associated with material circumstances, which describe the conditions in which people live and the resources available to meet basic needs for healthy living; such as quality housing, clean water and sanitation and access to healthy foods (Commission on the Social Determinants of Health 2008; Shaw 2004).

Social position and material circumstances are often used in datasets to highlight risk of ill health (Australian Institute of Health and Welfare 2016a; Blas & Kurup 2010). Australian data consistently highlights the lower socioeconomic profile and lower access to basic material resources of Aboriginal and Torres Strait Islander Australians (Australian Bureau of Statistics 2008; Australian Institute of Health and Welfare 2017a, 2018). Whilst these factors are generally seen as mediating individual health outcomes, the causality of these factors has not been established and the inter-relationship between factors is described as complex. Hence, applying simple concepts, such as poverty and low education levels to increased risk of disease must be undertaken with caution (Australian Institute of Health and Welfare 2013a; Marmot 2011).

The application of the social gradient to Aboriginal health has been questioned by a number of authors (Altman 2003; Dockery 2010; Hunter & Jordan 2010; Morrissey et al. 2007; Prout 2011; Taylor 2008). Whilst Western constructs of participation in employment and education are generally viewed as enhancing the social capital of Aboriginal peoples, this opinion is challenged when considering Aboriginal peoples experiences of structural violence when engaging with institutions, the role of institutions in traumatic historical events and the conflict that participation in employment and education may have on cultural/social roles and activities (Dockery 2010; Dunbar & Scrimgeour 2007; Hunter & Jordan 2010; Taylor 2008). Similarly, whilst many Aboriginal peoples live in houses of an unacceptable standard that do not contain functioning facilities required to enable health promoting behaviours (Australian Institute of Health and Welfare 2017a); positive aspects of larger households such as social connectivity could be better recognised through appropriate housing designs that recognise socially and culturally relevant constructs of family and preferred ways of living (Steering Committee for the Review of Government Service Provision 2016). These are generally not captured in current datasets or interventions. Nguyen and Cairney (2013) therefore proposed that further research is required to understand the influence of social factors on health before assuming the transferability of social position as a causative factor for Aboriginal populations.

2.6.2 Psychosocial health

Psychosocial health is acknowledged in the original concept of the SDoH through determinates of social and emotional wellbeing, self-esteem and self-efficacy. It is also important to recognise the additional psychosocial determinants, including grief, trauma, isolation, racism and exposure to domestic violence and substance abuse, that continue to be experienced by most Aboriginal peoples as a result of the policies of colonisation (Osborne, Baum & Brown 2013; Solar & Irwin 2010; Waterworth et al. 2016).The positive social capital that exists in many Aboriginal communities is also protective for psychosocial indicators.

There is increasing acknowledgement in the biomedically informed literature of the impacts of intergenerational and collective historic trauma that have strong interactive and cumulative effects on the health and wellbeing of Aboriginal peoples in Australia (Atkinson et al. 2014; Herring et al. 2013; Paradies 2016; Zubrick et al. 2014). Trauma is associated with a range of severe and persistent adverse health outcomes, including impaired brain development, emotional distress, low sense of self-worth and increased risk of chronic diseases; in addition to higher participation in risky behaviours (Atkinson 2013). The impact of historical traumas such as the massacres that occurred across the Central Australian region are strongly felt by members of the study community and grandparents in the community have openly discussed their experiences of traumatic events as children and the impacts of this on their current lives. Whilst trauma is often thought of as a personal experience, historic or intergenerational trauma recognises that trauma can be transmitted across generations, as experiences of trauma become normalised and are relived as they are passed onto future generations as cultural memories and impacts on parenting practices (Atkinson et al. 2014; Paradies 2016). This collective trauma is added to through ongoing exposure to structural violence and racism (Artuso et al. 2013; Browne et al. 2016; Paradies 2016).

2.6.3 Community: social capital and cohesion

Social capital as described in the original SDoH refers to the benefits, such as sense of trust and belonging, emotional support, shared norms and reciprocity of resources; that are provided through involvement in social groups or networks (Bush & Baum 2001; Cockerham, Hamby & Oates 2017). High levels of social capital have been related to lower morbidity and mortality rates (Australian Institute of Health and Welfare 2016a), and also influence health behaviours and other determinants such as education and employment as well as the diffusion of health information (Cockerham, Hamby & Oates 2017). Authors such as Walter and Mooney (2007) claimed that the social wealth that exists in Aboriginal communities is undervalued and Aboriginal peoples have identified that determinates of community functioning, such as relationships with family, community and connection to culture, are of particular relevance for health (Commonwealth of Australia 2012).

Community also encompasses social cohesion, which describes the quality of social relationships and includes aspects of inclusion, equality and development (Chuang, Chuang & Yang 2013). As discussed in section 2.2.2, racism and marginalisation is common in Australia with one third to three quarters of Aboriginal peoples reporting that they experience racism at interpersonal and institutional levels (Australian Health Ministers Advisory Council 2012; Paradies 2008). Racism not only has direct impacts on psychosocial health but influences participation in health behaviours and can lead to disengagement with health and other services (Cockerham, Hamby & Oates 2017; Henry, Houston & Mooney 2004; Paradies 2005), thereby influencing other determinants such as housing and education (Osborne, Baum & Brown 2013). The significant role of family and community in Aboriginal health and the impact of social cohesion factors, such as racism and discrimination when engaging with services, indicates that social capital is likely to be a determinant of particular importance to Aboriginal health outcomes (Anderson 2007; Marmot 2011).

2.6.4 Culture

Within Australia and globally, it is recognised that patterns of health vary between cultural groups (Anderson 2007; Durey & Thompson 2012). Culture organises our personal and collective experiences and defines our worldview (Corin 1995). Culture, spirituality, identity, family, community and country are interconnected domains that are integral to Aboriginal concepts of health and wellbeing (Butler et al. 2019; Nguyen & Cairney 2013). Numerous authors report that the social capital of Aboriginal Australians is embedded in cultural understanding and identity (Brough, Bond & Hunt 2004; Hunter 2004), which are reinforced through the drivers of family, community and kinship (Butler et al. 2019). Culture is enacted through practices such as use of traditional languages, identifying with family and clan groups, connection to and caring for country, spirituality, knowledge of and participation in cultural beliefs, practices and ceremonies, participation in sport, and mobility (Butler et al. 2019; Kingsley et al. 2013; Osborne, Baum & Brown 2013; Poroch et al. 2009; Zubrick et al. 2014).

Cultural determinants impact on both health outcomes and health behaviours and are often manipulated by or buffer the impacts of social and economic disadvantage (Eckersley 2015; Osborne, Baum & Brown 2013). These concepts also relate to psychosocial health outcomes as discussed in section 2.6.2, whereby cultural participation is a key indicator of social and emotional health and wellbeing (Morrissey et al. 2007; Prout 2011). However, experiences of trauma, racism and exclusion threaten the identity of Aboriginal peoples and their ability to engage in cultural activities (Commission on Social Determinants of Health 2007).

Cultural domains of wellbeing are reportedly of particular relevance to people living on or near their ancestral homelands (Cairney et al. 2017), such as the remote communities of the NT. Within the NT, there is strong cultural capital with 81% of adults reporting that they identify with a clan or language group, 88% recognising homelands or traditional country and 34% residing on these lands (Australian Institute of Health and Welfare 2017a). These findings may relate to the improved health benefits recorded for Aboriginal peoples living in homeland communities (McDermott et al. 1998) and suggests that the role and interplay of cultural factors may vary for urban populations (Cairney et al. 2017).

2.6.5 Empowerment

The addition of empowerment, based on cultural and spiritual beliefs (Whiteside, Tsey & Earles 2011), to the SDoH is supported by a growing body of literature highlighting the importance of agency and inclusion on health outcomes (Askell-Williams et al. 2007; Tsey et al. 2010). Whilst the reduced power of Aboriginal peoples due to the policies and practices of colonisation are widely acknowledged, there have been few health programs aiming to specifically empower Aboriginal peoples (Tsey 2000; Tsey et al. 2003). Empowerment is connected to a number of other determinants. In particular, it is promoted through cultural identity and social inclusion, but is reduced by experiences of racism, marginalisation and discrimination (Bobba 2019). The meaning of empowerment is contested in the literature (Bobba 2019; Fredericks 2008b), however the need for Aboriginal peoples to gain control over their own affairs and choices has been highlighted as one of the first steps needed to improve Aboriginal health (Bobba 2019; Tsey et al. 2003). Facilitating empowerment requires the leadership of Aboriginal people to determine appropriate solutions (Durey et al. 2016) and the abolishment of practices and systems that act to marginalise, discriminate and oppress Aboriginal peoples (Bobba 2019; Fredericks 2008b).

2.7 Chapter summary

In this chapter I have highlighted that Aboriginal peoples participated in a diverse range of cultural practices that sustained health and wellbeing for thousands of years before colonisation by European settlers. I described the ongoing impacts of colonisation on the contemporary health and nutrition of Aboriginal peoples and discussed the Western constructs of health and determinants of health that shape health professionals' understandings of health and health service provision. I presented alternative constructs of wellbeing and a model of the interplay of factors prioritised by Aboriginal people as impacting on wellbeing, that better represent Aboriginal constructs of health.

Health professionals' views of Aboriginal health are likely to align with government data that is presented in health policy and describes high rates of largely preventable chronic diseases that are experienced early in life and are related to a double burden of under and over nutrition in childhood. This knowledge draws attention to the need to focus on improving Aboriginal health outcomes early in life but presents a one-sided view of deficits and problems that are related to the behaviour of individuals and their participation in risk taking, for example the consumption of a 'poor' diet as defined by Western and medicalised constructs. The data highlights at-risk groups, generally marginalised peoples, who are blamed for their deviance and non-compliance with public health recommendations, as the moral imperative is placed on the individual to attain health.

There has been some movement in public health to extend concepts of health beyond individual responsibility and acknowledge the impacts of structural factors, mostly social position (education, income and employment) on health outcomes. However, whilst these SDoH have assisted in creating more holistic understandings of health and shifted some of the blame away from individuals, as I discuss in Chapter 4 they have not been well integrated into health actions and interventions. Further, their concepts do not generally extend to include Indigenous constructs of health and wellbeing or consider the enduring impacts of colonisation on health outcomes and their determinants. The viewing of determinants therefore remains highly orientated to the Western lens and prioritised to Western ideals.

Colonisation of Australia and its lasting and continuing influences on health and wellbeing have been cited by many authors as the overarching determinant of health. The initiation of colonisation occurred much later in the NT than other regions of Australia with some Aboriginal peoples, living around the areas of the study community, moving into established settlements as recently as the 1980s. Whilst the experiences of colonisation have varied, similar policies and practices were implemented across Australia and have been integrated into contemporary structures and societal discourses of supremacy of the colonising group. These continue to marginalise, oppress and discriminate against Aboriginal peoples as the resources and power required to maintain health and wellbeing are distributed inequitably to the dominant non-Aboriginal group. Colonisation has also led to social discourses of deficit and dysfunction that influence how Aboriginal peoples and Aboriginal health is viewed by dominant society and its institutions, including by health services and health professionals. Widespread deleterious impacts on health and wellbeing are associated with intergenerational trauma related to these colonising practices and to continued exposure to acts of racism and structural violence that are embedded into interpersonal and institutional interactions across society.

These practices also significantly influenced the dietary intakes of Aboriginal peoples as access to lands and traditional food sources were denied, participation in cultural activities was prohibited and the encroachment of towns and farmlands destroyed traditional food stocks. The destruction of family and kinship groups also impacted on child rearing strategies, participation in food related roles and the sharing of food related knowledge and skills. The reduced access to traditional foods and increased reliance on experiences with low quality ration style foods that are cheap and easy to store and prepare, has influenced contemporary intakes of limited dietary variety, mostly of energy dense and nutrient poor foods; particularly in areas with low quality housing and poor access to health hardware.

How health is constructed and the models applied to understand the determinants of health in mainstream health data, reports and literature has far reaching impacts on health service delivery and access to culturally appropriate healthcare. The models currently referred to in the health literature and utilised to inform health service delivery are framed by Western understandings which act to problematise Aboriginal health. Better integration and fore fronting of models that align with and prioritise Indigenous constructs of health and wellbeing and acknowledge the impacts of colonisation, such as the interplay wellbeing model presented in this chapter, are required to meet the needs of Aboriginal peoples and to shift from deficit to strength based models of service delivery.

3 INFANT AND CHILD FEEDING

In this chapter, I provide an overview of the current knowledge of Aboriginal children's diets and caregiver feeding practices that inform health professionals' practices. This has directed an increase in health service provision to activities that aim to optimise nutrition in the early years of life. I highlight the extensive biomedical evidence that supports the argument that the early years of life, in particular the period of weaning, is integral in shaping future eating behaviours, optimising child development and reducing future risk of chronic disease (Barker 2007; Birch, Savage & Ventura 2007; Phillips-Beck et al. 2019; World Health Organization 2013). This knowledge claims that a focus on this period of life is integral if health inequities are to be addressed, as positive influences on nutrition at this time are proposed to have lasting and intergenerational effects on both health and socio-economic outcomes (Schwarzenberg, Georgieff & Committee on Nutrition 2018).

I review the dietary guidelines that inform health and nutrition programs and the messages targeted to caregivers of young children. Despite knowledge of the importance of nutrition during the period of weaning, there is limited knowledge of the dietary intakes or determinants of dietary practices of young children, in particular for children from non-dominant groups. Young children are reliant on their caregivers for food and the family food environment and ways that caregivers and children interact around food therefore significantly influences what foods are consumed by young children. I explore whether the current knowledge of Aboriginal children's diets considers the feeding environment or caregiver feeding strategies and if existing knowledge considers Aboriginal child rearing values, Aboriginal constructs of health or the Indigenous determinants of health described in chapter 2.

3.1 The importance of the early years of life for future health outcomes

Related to the biomedical view of health that I discussed in Chapter 2, there has been an increased global focus on interventions targeted to the first two years (or 1000 days) of life, which are reported to offer a unique opportunity to reduce the risk of developing chronic disease and to reduce health inequities through optimising children's development and their potential social position (Phillips-Beck et al. 2019). Investment at this sensitive period of life is proposed to have stronger and longer lasting effects, than those targeted to later periods of life, that will reap benefits many times the original investment (Irwin, Siddiqi & Hertzman 2007; McNamara et al. 2018).

The first 1000 days of life is marked by a period of rapid physical and neurological growth and development, during which the development of brain structures and functions have lasting impacts on intellectual capacity, psychosocial and general health outcomes that determine future participation in education, IQ and employment opportunities (Prado & Dewey 2014; Schwarzenberg, Georgieff & Committee on Nutrition 2018; World Health Organization 2013). Adequate intakes of energy, protein and key nutrients such as iron and iodine are essential for normal growth and brain development and the rapidity of growth in early life places children at high risk of malnutrition. Both undernutrition and overnutrition, presenting as obesity, have been associated with adverse neurological development and the impact of some nutritional deficiencies, in particular iron; especially if occurring early in life, are reported to cause irreversible damage (Schwarzenberg 2018; Schwarzenberg, Georgieff & Committee on Nutrition 2018).

Early research that deprivation in the uterine environment leads to low birth weight and biologically programs an infant’s risk of chronic disease (Barker et al. 1989; Barker, Osmond & Law 1989) has been extended to indicate that the propensity to develop chronic disease may also be influenced by growth and nutrition throughout early childhood. In particular, rapid catch up growth following low birth weight or malnutrition in infancy and repeat exposure to infections that may alter colonisation of the gut microbiome (Adair & Cole 2003; Adair et al. 2013; Burdge et al. 2007; Case & Paxson 2010; Koletzko et al. 2005) have been shown to cause permanent structural changes to key organs and/or alter gene and cellular processes which increase risk of chronic disease (Gluckman, Hanson & Beedle 2007; Koletzko et al. 2005; Luyckx et al. 2013; Phillips-Beck et al. 2019). As discussed in Chapter 2, Aboriginal children continue to experience significant rates of recurrent infections and growth faltering and rates of chronic disease in adults are experienced at rates several times that of the non-Indigenous population. Research indicates that the physiological changes occurring as a result of early impacts on growth may have intergenerational effects that further extend the risk of chronic disease to future generations (Phillips-Beck et al. 2019).

3.1.1 The first 1000 days movement

Acknowledgement of the influence of nutrition, in particular undernutrition, in the first 1000 days of life has led to a rapid and unprecedented level of investment and activity in research, policy and advocacy on maternal and early childhood health and development (Wise 2013); including for Aboriginal and Torres Strait Islander children (Arabena 2014; Arabena, Panozzo & Ritte 2016; Martorell 2017; Ritte et al. 2016; Schwarzenberg, Georgieff & Committee on Nutrition 2018). Internationally, the first 1000 days movement has aimed to address malnutrition through the provision of evidence based medical care and social supports to children and families experiencing inequitable health outcomes and a range of evidence papers have been produced to support advocacy work (Moore et al. 2017; United Nations Children's Fund 2013).

Whilst the first 1000 days research has highlighted the need for action, understanding of the complex pathways influencing health outcomes and strategies that could be applied to optimise health in infancy and into the future are yet to be determined (McNamara et al. 2018). Recent work by Kerry Arabena and colleagues recognises that a more holistic perspective which extends beyond nutrition, centralises the role of culture and applies a strengths-based approach is needed to support Australian Aboriginal families to optimise health outcomes during the first 1000 days (Arabena 2014; Ritte et al. 2016). Research by this team is currently monitoring the impact of an Indigenous led, collective impact framework to understand the characteristics of strong and resilient families (Arabena, Ritte & Sutherland 2016).

3.2 Nutritional requirements in early childhood

3.2.1 Breastfeeding

Extensive scientific evidence asserts that breastfeeding not only meets all of an infant’s nutritional needs for the first six months of life, and continues to provide up to one third of nutritional needs through the second year of life (NHMRC 2012), it also reduces the risk of obesity and chronic diseases (Agostini, Baselli & Mazzoni 2012; Hunsberger et al. 2012; Oddy 2001) and imparts a range of other health benefits for both mother and child as described by Figure 3.1. Any breastfeeding confers these benefits but effects are enhanced with extended duration (Emmett & Jones 2014).

Benefits to Infants

Meets all nutritional needs of infants for first six months of life

Offers immunological protection to reduce the risk of infections

Promotes cognitive and sensory development

Reduced risk of obesity and chronic disease

Benefits to Mothers

Improved postnatal weight control

Reduced risk of ovarian and breast cancer

Facilitates spacing of pregnancies

Increases family and national resources

Figure 3.1 The benefits to mothers and infants from breastfeeding

(National Health and Medical Research Council 2012)

3.2.2 Introduction of complementary foods

A biomedical approach recommends that complementary foods are added to infants' diets at around six months of age to meet nutritional and developmental needs (WHO 2003b). Foods are initially introduced in small volumes in conjunction with breastmilk (or an infant formula) and progress in texture, volume and variety over the first two years of life to meet all nutritional needs, this process is known as weaning.

Suboptimal timing of the commencement of complementary foods has been associated with a range of adverse health outcomes as displayed in Figure 3.2. Of particular relevance to Aboriginal communities, given the health outcomes discussed in Chapter 2, are the higher risk of obesity and infection associated with early commencement and increased risk of iron deficiency and poor growth associated with delayed introduction. A focus on the appropriate timing of complementary foods is promoted through reports that 6-24% of the risk of chronic disease may be attributed to early introduction of complementary foods in infancy (Smith & Harvey 2011).

Early Introduction of Complementary Foods (<4months)

Increased risk gastrointestinal and respiratory infections (1)

Lower nutritional quality of diet (2)

Higher risk of obesity and chronic disease later in life (2)

Increased risk of allergy (3)

Late Introduction of Complementary Foods

Increased risk of growth faltering (4)

Increased risk of iron deficiency anaemia and other nutritional deficiencies (5)

Increased risk of feeding problems and fussy eating (6)

Lower nutritional quality of the diet (6)

Figure 3.2 Health risks associated with timing of complementary foods to infant diets

(1) (Forsyth et al. 1993) (2) (Emmett & Jones 2014) (3) (Sansotta et al. 2013)
(4) (Wright & Birks 2000) (5) (Hopkins et al. 2007)
(6) (Northstone, Emmett & Nethersole 2001)

The types of complementary foods to offer are guided by scientific evidence that the iron stores laid down during pregnancy which sustain an infant's needs in early infancy are depleted by six months of age, leading to a reliance on high quality, iron rich foods to meet nutritional needs for growth and development (Dube et al. 2010). The inclusion of a variety of core foods into the diet over the weaning period are also argued to be important to meet increasing nutritional needs and to establish healthy food habits and preferences for healthy foods (Birch & Doub 2014; Coulthard, Harris & Emmett 2009) that track into adulthood (Kelder et al. 1994; Lioret, Betoko, et al. 2015; Northstone & Emmett 2008).

Food preferences are reported to be highly modifiable during the weaning period but are difficult to alter in later childhood and adulthood (Coulthard, Harris & Emmett 2009; Shaikh et al. 2008; Shim, Kim & Mathai 2011; Te Velde et al. 2008). As dietary quality is reported to decline with age (Golley, Hendrie & McNaughton 2011), the weaning period has been highlighted as a crucial time to influence long term eating behaviours (Lytle et al. 2000). Despite knowledge that eating is a social activity and food preferences are modified by context and social experiences (Liberman et al. 2016), research has tended to occur predominantly with Caucasian groups and is assumed to apply to other cultural groups. There have been a small number of studies undertaken with minority groups in America, however specific research with Australian Aboriginal children has not been undertaken with regards to the critical period of weaning.

3.3 Guidelines for the promotion of early nutrition

Scientific knowledge of the nutritional needs of children has been used to inform infant feeding guidelines of the World Health Organization (2003b), which have been extrapolated to the Australian Infant Feeding Guidelines (NHMRC 2012). Similar evidence has been used to develop the Australian Dietary Guidelines which are utilised to inform dietary recommendations after two years of age (NHMRC National Health and Medical Resarch Council 2013a, 2013b). Dietary guidelines are used to inform policy and the practices of health professionals. The current Australian infant feeding and dietary guidelines are summarised in Table 3.1.

Table 3.1 Australian child feeding recommendations

The Australian Infant Feeding Guidelines
Breastfeeding
Encourage, promote and support exclusive breastfeeding until around 6 months of age Fluids other than breastmilk are not required in the first 6 months of life Continue breastfeeding with appropriate complementary foods until 12 months of age and beyond, for as long as mother and child desire
Infant Formula
If an infant is breastfed, they should be provided with a cow's milk based infant formula until 12 months of age Special formulas may be used under medical supervision for infants who cannot take cow's milk-based products for medical, cultural or religious reasons Cow's milk should not be provided as the main drink to children under 12 months of age
Complementary Foods
Introducing solid foods is necessary at around 6 months of age to meet an infant's nutritional and developmental needs Solid foods can be introduced in any order at a rate that suits the infant, as long as iron rich foods are included as first foods A variety of solid foods are required for good nutrition and to help the infant accept a range of flavours The texture of foods should be suitable to the infants stage of development and progress from puree to lumpy to normal textures during the 6-12 month period Solid foods should be of an acceptable taste without added salt, sugar or honey From 12 months of age toddler should be consuming family foods consistent with the Australian Dietary Guidelines with continuation of iron fortified foods, meats or iron rich alternatives Full cream pasteurised cow's milk can be offered as a drink from a cup after 12 months of age
The Australian Dietary Guidelines for ages 2 years and above
1. To achieve and maintain a healthy weight, be physically active and choose amounts of nutritious food and drinks to meet your energy needs. Children and adolescents should eat sufficient nutritious foods to grow and develop normally. They should be physically active every day and their growth should be checked regularly.
2. Enjoy a wide variety of nutritious foods from these five groups every day and drink plenty of water
3. Limit intake of foods containing saturated fat, added salt, added sugars and alcohol
4. Encourage, support and promote breastfeeding
5. Care for your food; prepare and store it safely

(National Health and Medical Resarch Council 2012, 2013a)

Typically, dietary guidelines are based on a Western understanding of the food-body-health relationship and describe what foods should be offered to optimise nutritional and health outcomes, as such they are assumed to apply universally to all socio-cultural groups (Hayes-Conroy & Hayes-Conroy 2014). The Australian guidelines provide minimal guidance on food environments or feeding practices, despite this being identified as just as, if not more, important than what foods are provided, as I discuss in section 3.7. Whilst eating is a social activity and constructs of food are deeply associated with personal and collective cultural identity, the socio-cultural context of food and the determinants of eating practices are ignored in these guidelines (Alkon & Agyeman 2011; Damman, Eide & Kuhnlein 2008; Oliveira & Silva-Amparo 2018).

The narrow approach to diet and nutrition promoted by these types of guidelines aligns with the dominant paradigm of ‘nutritionism’ whereby concepts of food are reduced to their role as a physiological necessity (Alkon & Agyeman 2011) and the focus of nutrition is limited to the impact of nutrients on health. This process decontextualizes food and eating and promotes an understanding that the guidelines are universally applicable to all groups of people (Guthman 2008; Hayes-Conroy & Hayes-Conroy 2014). It thereby acts to blind the implementors of the guidelines to the socio-cultural context of foods, devalues and delegitimises alternative viewpoints and meanings applied to food and thereby reinforces the marginalisation and oppression of minority groups (Alkon & Agyeman 2011; Freeman 2015; Hayes-Conroy & Hayes-Conroy 2014).

3.4 Traditional diets of Aboriginal infants around the period of weaning

One important socio-cultural consideration of food is the influence of historical feeding and dietary practices. Historical records from early researchers and settlers in Australia describe breastfeeding as a key feature of traditional diets for young Aboriginal children and reported that Aboriginal women sustained breastfeeding, for periods of up to four years (Eades et al. 2010; Engler et al. 1998; Mathews 1960). Breastfeeding practices were key to infant survival (Hitchcock 1989) and infants were fed by other lactating women in shared care practices, in particular if their mothers were unable to feed them (Eades et al. 2010; Helps 2014).

Infants were fed solid foods which had been pre-masticated or ground to supplement breastmilk once they began to demand additional foods (Eades et al. 2010; Hamilton 1981). This was generally around the eruption of the first teeth (Eades et al. 2010), or once infants could hold foods themselves (Stacy 1975), although Hitchcock (1989) claims this can only be speculated. Children were fed the same foods as the adults, with reported diets that were rich in wholegrains, with gradual introduction of eggs, soft fruits, damper, kangaroo, fish and vegetables (Engler et al. 1998; Gracey 2000; Hitchcock 1989). Knowledge of infant feeding was shared by women across generations (Carter et al. 1987).

The transition to modern infant diets commenced from around the 1960s as families across Central Australia were relocated onto settlements which provided commercial and other baby-specific foods, such as jarred baby foods and formula, or where puréed meals were provided in communal dining rooms (Eades et al. 2010). This practice, and the later separation of families during the Stolen Generations, led to a reduction in breastfeeding rates as children were removed from their mothers, formula feeding was promoted, traditional infant feeding knowledge and cultural practices were discouraged or prohibited; and children were introduced to Western foods in institutionalised settings (Eades et al. 2010; Engler et al. 1998).

As I discussed in section 2.2.4, modern diets for Aboriginal peoples in remote communities tend to mimic those of the ration days, which for the study community were a recent event, occurring during the childhood of the grandparents. Dietary patterns are transferred across generations and Foley (2005) reported that women in her Brisbane study remarked that their cooking was based on that of their mothers and grandmothers, whilst Thompson, Gifford and Thorpe (2000) reported that participants in a Melbourne study were resistant to dietary changes that differed from established eating patterns developed during periods of Assimilation, as these dietary patterns were seen to link people to relatives of previous generations.

3.5 Current dietary intakes of young Australian Aboriginal children

Whilst the breastfeeding and formula feeding practices of Australian families are well documented in the literature (Australian Bureau of Statistics 2017; Australian Institute of Health and Welfare 2011a), national surveys do not collect data for children under two years of age (Australian Bureau of Statistics 2014, 2015) and research has been limited to a small but increasing number of major intervention studies that report on various aspects of young

Australian children’s diets (Amezdroz et al. 2015; Bell, Golley & Magarey 2014; Byrne, Magarey & Daniels 2014; Chan, Magarey & Daniels 2011; Conn et al. 2009; Lioret, Cameron, et al. 2015; Mauch et al. 2017; Spence et al. 2018; Webb et al. 2005). The majority of these studies recruited children from White, middle class backgrounds and knowledge of the dietary practices of young Aboriginal children is negligible. Information that is available is presented from the view of non-Aboriginal researchers who have applied a biomedical lens to compare dietary intakes to infant feeding guidelines. The dearth of knowledge on the diets of Australian children around the time of weaning has led authors to call for further research in this area (Robinson 2015); clearly this call should be extended to include research with Aboriginal peoples, inclusive of a more holistic view of diet. This argument provides further rationale for this study.

The small body of knowledge of the feeding practices for young Aboriginal children has been predominantly located in urban settings and is limited to a few studies describing breastfeeding/formula feeding rates and the age of introduction to complementary foods (Binns et al. 2006; Eades & Read 1999; Foley, Denaro & Schubert 2013; Hayman et al. 2000). Overall, these studies indicate feeding practices similar to those described for the general Australian and global population with short duration of breastfeeding and early introduction of complementary foods (Australian Institute of Health and Welfare 2011b; Sellen 2001).

Other information on the feeding practices of Aboriginal infants from remote areas of Australia presents a different view of feeding practices and highlights the importance of context and consideration of diversity in practices. This knowledge has been gained from anthropological studies, predominantly undertaken in the 1980s, that document high initiation and duration of breastfeeding with exclusive breastfeeding until around six months of age and continued breastfeeding until at least two years of age (Gracey 2000; Hamilton 1981, 1982; Mountford 1960). Introduction of complementary foods was generally reported at six-eight months of age (Hamilton 1981; Kruske et al. 2012), however, this may vary amongst groups with Stacy (1975) reporting that solids were delayed until one year of age for Pitjantjatjara infants, whilst other authors have documented early introduction of solids from three months of age (Harrison 1986). These studies provide minimal information on the types of foods provided, but do mention soft and pre-masticated foods such as offal, commercial jarred foods, eggs and mashed vegetables (Harrison 1986; Shaw 2002).

More recent data on the breastfeeding practices of Aboriginal Australians indicates that nationally 80% of Aboriginal and Torres Strait Islander children aged 0-3 years commenced breastfeeding at birth, with higher rates in remote (87%) compared to urban (79%) areas. These breastfeeding rates are similar to or slightly lower than non-Indigenous infants (Australian Bureau of Statistics 2016a). Breastfeeding rates within the NT are the highest of all Australian regions with 95% of infants ever breastfed (Australian Institute of Health and Welfare 2017a). Duration of breastfeeding for Aboriginal children living in some remote communities may be lengthy with one anaemia prevention study indicating that that over 80% of Aboriginal infants in study communities across Northern Australia were breastfed until at least two years of age (Acquino et al. 2013).

Two recent studies describe the foods provided to young Aboriginal children living in remote areas of Australia. The Gomeroi gaaynggal study (Ashman et al. 2016) is a prospective longitudinal cohort study of Aboriginal and Torres Strait Islander mother-child dyads from rural New South Wales, which gathered quantitative data on maternal diet and infant feeding practices as part of a larger study. In addition to breastfeeding practices, the study provided information on age of introduction of complementary foods and foods provided to children, which were similar to those that I described above for urban populations.

The study providing the most knowledge of young Aboriginal children's diets in remote communities was undertaken by Leonard et al. (2017) and Acquino et al. (2013). They employed Aboriginal CBW's, as part of a nutrition promotion and anaemia prevention project in six Aboriginal communities across Northern Australia in 2010-12, to gather dietary information from caregivers of children aged from six to twenty-four months of age, using 24-hour food records. This study provides insight into the dietary intakes of children living in remote communities and describes dietary intakes that have low diversity with high consumption of breastmilk; a dominance of breads, grains and cereals, low intakes of fruits and vegetables and high intakes of sweet drinks. Key findings from this study are summarised in Table 3.2.

Table 3.2 Children's diets during the period of weaning in remote Aboriginal communities

Dietary Practice	Prevalence
Consumed breastmilk in previous 24-hour period	67.4% (80.3% children aged 6-12 months)
Consumed solid foods	98.2%
Met recommendation for minimal meal frequency	88.5%
Adequate dietary diversity	30% * more likely during 'pay week'
Consumed bread, grain or cereal in previous 24 hours	80.6%
Fruit or vegetables consumed in previous 24 hours	13% consumed fruit 33% consumed no fruits or vegetables
Consumed sweet drink in previous 24 hours	25%
Consumed bush food in previous 24 hours	9.3%

(Acquino et al. 2013; Leonard et al. 2017)

3.6 The determinants of dietary behaviours

The Social Determinants of Health (SDoH) have well documented impacts on health behaviours and outcomes. The influence of the broader SDoH on dietary quality and patterns have been described in the literature (Perez-Escamilla et al. 2018), including generally for remote Aboriginal communities, where people are reported to be less likely to purchase and consume healthier diets (Friel, Hattersley & Ford 2015). It is important to note that the discourses around what constitutes a 'healthy' diet and the determinants of dietary intakes are usually based on Western viewpoints and have often been extrapolated from research with non-Aboriginal people. Only a small amount of research has explored Aboriginal perspectives of diet (Brimblecombe et al. 2014) and further research is required to ensure that Aboriginal perspectives of diet are represented in the literature to ensure that a diversity of perspectives are represented, reduce marginalisation of alternative knowledge and to ensure relevance of knowledge for Aboriginal peoples.

Recent research has recognised that the determinants of dietary behaviours vary across cultural groups, with people from minority groups placing greater importance on socio-cultural factors and less importance on factors commonly identified as key determinants by dominant groups (Osei-Kwasi et al. 2016). The lack of representation of Aboriginal peoples and dominance of the Western lens to understandings and determinants of health highlights the minimal consideration of the factors associated with health/dietary disparities and leads to the application of determinants from dominant or whole of population groups, which may not address the issues of concern for Aboriginal peoples. The assumed homogeneity across groups acts to further marginalise and oppress the views and knowledge of Aboriginal peoples and leads to interventions that do not address the factors leading to dietary concerns (Osei-Kwasi et al. 2016).

There has been minimal research into the determinants of Aboriginal children's diets and knowledge is usually inferred from whole of community or adult diets. Most research for the early years age group is directed to the exploration of the determinants of breastfeeding practices and there has been minimal research into the determinants of weaning practices of Aboriginal caregivers, or caregivers from minority cultural groups in other developed countries. The determinants of dietary practices may vary with age (Osei-Kwasi et al. 2016) and learnings from child development literature indicate that family level determinants are likely to play a larger role in determining children's diets (McNamara et al. 2018).

Figure 3.3 illustrates the known determinants of children's dietary practices, displayed as a socio-ecological model which demonstrates the level at which determinants influence health practices. This model is used extensively in health promotion (Richard, Gauvin & Raine 2011) and has been applied broadly to nutrition research (Davison & Birch 2001; Moore, de Silva-Sanigorski & Moore 2013; Willows, Hanley & Delormier 2012). Due to the paucity of information on the determinants of dietary practices for young Aboriginal children I collated the determinants identified in the figure from research with general population groups, combined with the limited research on breastfeeding determinants and child diet across all age groups for Aboriginal peoples. The knowledge pertaining to Aboriginal peoples has been bolded.

The figure highlights that the focus of determinants is on the original SDoH concepts, in particular social position, discussed in section 2.5.1. Cultural differences in infant feeding and food patterns are well documented in the literature (Homer, Sheehan & Cooke 2002; Scott & Binns 1998; Sellen 2001), however there has been little attention paid to the social and cultural contexts of feeding children (Mwaseba, Kaarhus & Zebedayo 2016).

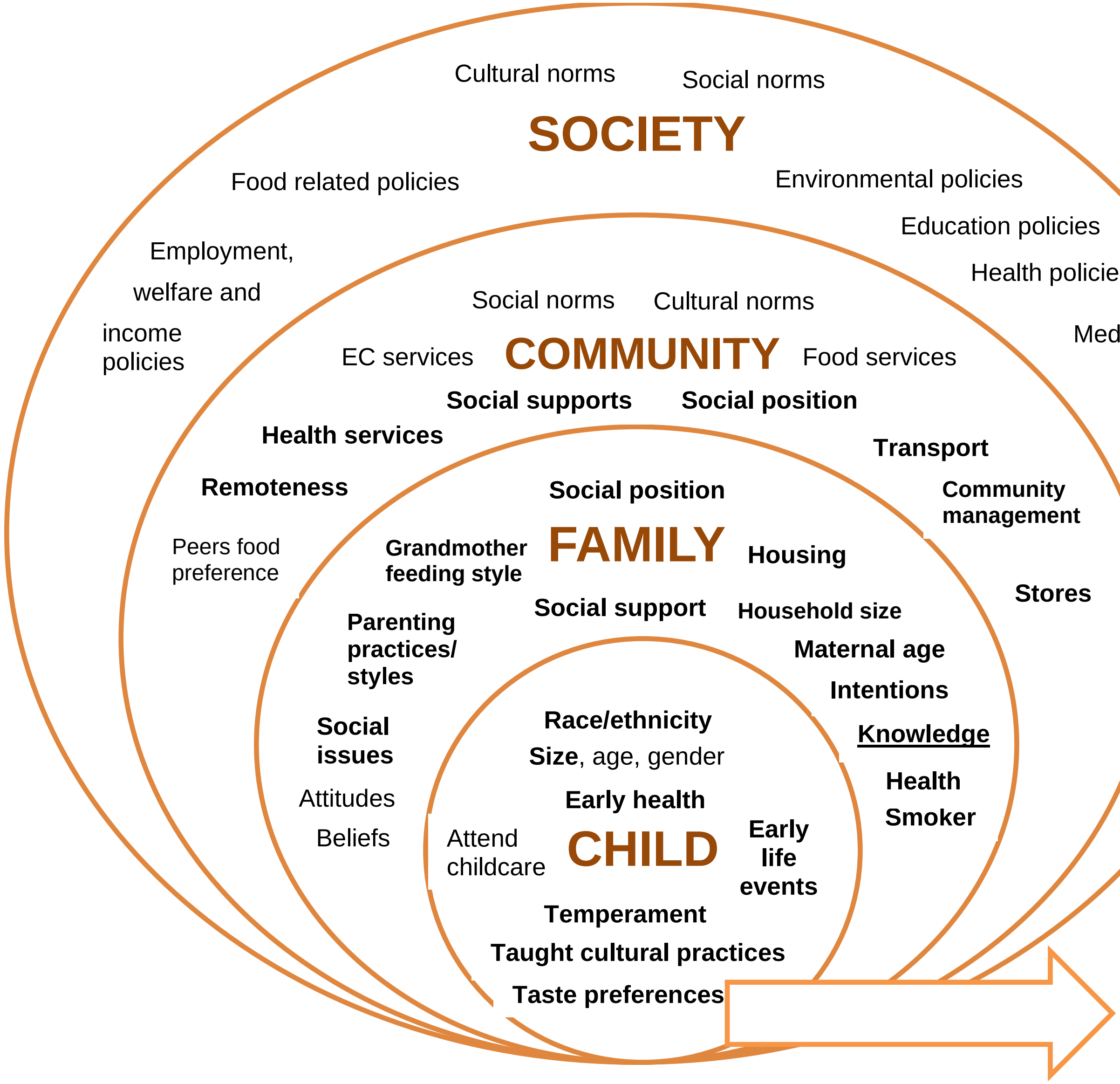


Figure 3.3 The determinants of children's diets around the time of weaning

(Bolded text indicates determinants that have been identified from research with Indigenous peoples)

3.6.1 Child level determinants

Individual characteristics of the child such as gestational age, weight, early health status and temperament have generally been reported to influence infant feeding decisions, in particular the timing of complementary foods (Francis, Hofer & Birch 2001; Heinig et al. 2006). The early health and temperament of the child have been associated with early breastfeeding decisions of Aboriginal mothers (Binns & Scott 2002; Helps & Barclay 2015), however child related factors on weaning practices have not been explored. Mothers from a range of cultural backgrounds are reported to perceive that the timing of introduction of complementary foods is not associated with health outcomes for their infants (Anderson et al. 2001; Bronner et al. 1999; Heinig et al. 2006).

Participation in cultural activities and cultural identity were identified by Willows, Hanley and Delormier (2012), as important individual level determinants of Indigenous children’s risk of obesity in Canada. They also noted the influence of historical factors, related to colonial policies resulting in dispossession of traditional lands and attempted assimilation, across all ecological levels. These factors, as discussed in section 2.6, are acknowledged as important determinants of health, however, they have not been explored in relation to early feeding practices or in the Australian context.

3.6.2 Family level determinants

Given that young children are reliant on their caregivers for food, several of the determinants occur at the family level (Delormier 2010), therefore families and the family food environment are recognised as the most influential level at which children’s dietary practices are created and enacted (Birch & Davison 2001; Birch & Fisher 1998; Delormier 2010; Thomas 2000).

Many of the determinants at the family/household level are also experienced at a community level in small Aboriginal communities due to close social and kinship networks and transience within and across houses (Musharbash 2008). As such, several of the economic and environmental determinants of child feeding such as income, housing and food access that have been described at a general community level are extrapolated to the family level. Community level determinants for Aboriginal peoples have focused on social position factors including income and education (Kettings, Sinclair & Voevodin 2009; Lee 2016; Thurber, Bagheri & Banwell 2014; Thurber, Boxall & Partel 2014; Venn et al. 2018). In particular, the unaffordability of high food costs on low incomes (Kettings, Sinclair & Voevodin 2009) and the impact of remoteness on food costs, access and availability and the contribution of these factors to food insecurity (Friel, Hattersley & Ford 2015; Lee et al. 2009; Thurber, Boxall & Partel 2014) are widely documented in the literature. Housing quality, household size and adequacy of health hardware have also been extensively reported as determinants (Browne, Laurence & Thorpe 2009; Lee & Ride 2018a; Leonard et al. 2017). Health literacy and a lack of caregiver knowledge are also commonly cited by the biomedical literature as determinants of food insecurity (Friel, Hattersley & Ford 2015), adherence to infant feeding guidelines (Harrison, Brodribb & Hepworth 2017), consumption of sweetened beverages (Thurber, Bagheri & Banwell 2014) and fruits and vegetables (Thurber, Banwell & Banks 2017).

3.7 The role of family in determining children's dietary intakes

As previously discussed, young children are completely reliant on their caregivers for food in the first years of life. Families, in particular caregivers, influence children's food intakes in a number of ways; through socialisation (Campbell & Crawford 2001), parenting and feeding style (Brown & Lee 2011; Dettwyler 1989; Vollmer & Mobley 2013) and the food environment (Birch 1980b; Birch & Doub 2014; Campbell & Crawford 2001; Vereeken & Maes 2010).

The consumption of food is a social activity and social and cultural norms of the family and community group define what is acceptable, desirable and appropriate to eat, how and where foods are consumed, the values attributed to foods, how food is shared and distributed and how food related knowledge, attitudes and practices are transferred across groups and generations (Friel, Hattersley & Ford 2015; Kumanyika 2008; Mwaseba, Kaarhus & Zebedayo 2016). Meanings, knowledge, norms and practices related to feeding children are passed on through generations but are dynamic and respond to new challenges, environments and the availability of resources (Delormier 2010; Neckoway 2011). Adaptations to feeding practices may occur with child health concerns, such as poor growth, but may also be varied by cultural and social expectations and beliefs about normal child health, growth and development (Schultze 2000). Cultural and social norms are also an important component of the context in which policies influencing food access, marketing and cost are developed (Friel, Hattersley & Ford 2015).

There is minimal documentation of the cultural and social determinants of child feeding practices and most research into the family food environment and caregiver feeding practices has been undertaken with White, middle class mothers. This gap in knowledge is of concern, as it is argued that these determinants may be as or more important than the physical environment in influencing dietary quality (Brug et al. 2008). Further, the lack of impact of nutritional interventions aimed at addressing infant feeding practices has been blamed on the omission of cultural determinants and knowledge from these interventions (Mwaseba, Kaarhus & Zebedayo 2016; Neckoway 2011). The transference of knowledge from the dominant group to other peoples, with the expectation of behaviour modification to align with that knowledge, is inappropriate given the socio-cultural influences on eating and the importance of food in personal and cultural identity (Alkon & Agyeman 2011). As described above, whilst a small amount of knowledge of the child feeding practices of Aboriginal peoples has been reported as part of broader ethnographic studies into child rearing, these studies have utilised a Western lens to describe practices and have not sought the voice of Aboriginal caregivers in describing why practices do or do not occur. The lack of diversity in child feeding knowledge therefore acts to promote a view that assimilation to dominant practices is required and reinforces binary deficit discourses and marginalisation of alternative practices.

3.7.1 The family food environment

The family food environment has been defined as the characteristics within a family that influence children's dietary intakes. These include the food preferences, nutrition and health knowledge and attitudes of caregivers and the role modelling of dietary behaviours by family members (Campbell & Crawford 2001; Campbell, Crawford & Ball 2006; Davison & Birch 2001; Gibson, Wardle & Watts 1998), as well as the availability and accessibility of food (Birch & Fisher 1998) and level of media exposure (Taras et al. 1989).

Cultural differences in family and household structures and the roles and responsibilities of family members, including for childcare, have been reported in the literature (Walter 2017) but are not reflected in knowledge of the family food environment. As I discuss in section 3.8, responsibilities for childcare in Aboriginal families tend to extend beyond parents and grandparents to other significant people, living in linked households across the community, who provide not only direct care but are integral in sharing cultural strengths and knowledge and social and economic resources (Walter 2017). As a result, the family food environment and caregiver roles may be greatly extended beyond the role of mother and occasional role of father or grandparent, commonly documented in the literature.

Research with non-Indigenous families indicates that children learn to eat the foods that are available and accessible to them (Birch & Fisher 1998; Patrick & Nicklas 2005). Children tend to model the foods consumed and eating behaviours of their parents and peers (Birch 1980a; Campbell & Crawford 2001) and food patterns and preferences of children tend to mimic those of their parents, in particular their mothers (Hendrie et al. 2013; Skinner et al. 2002). Exposure to new foods is determined by the foods available and accessible to the child, which are in turn determined by parental food preferences, knowledge and attitudes towards nutrition and health (Campbell & Crawford 2001) and the availability of resources. These determinants have yet to be explored with Aboriginal families, however Willows, Hanley and Delormier (2012) reported that in Canada, Indigenous families with limited financial resources may not offer new foods or only offer foods that they know their children will accept in an attempt to reduce food waste.

3.7.2 Parental feeding styles and practices

How children are fed may be just as, or more important than the foods they are fed. Research to date with non-Indigenous families, has shown that the socio-cultural characteristics of the home, including parental feeding styles and caregiver feeding practices, have been associated more consistently with child weight status than physical characteristics such as the availability of healthy foods (Couch, Glanz & Saelens 2014). These feeding practices are reported to have lasting impacts on a child's future diet quality, health status and relationships and attitudes towards food and eating (Kral & Rauh 2010), but have not yet been explored with Aboriginal families.

Caregivers are proposed to transmit their influences on how and what a child eats through the way that they interact with the child during the selection and consumption of food (Brown & Lee 2011). These feeding characteristics develop during the weaning period and remain stable once established (Blissett & Farrow 2007). Feeding is a reciprocal process and the feeding practices of caregivers are reported to be influenced by child characteristics such as age, size and behaviour (Brown & Lee 2011; Farrow & Blissett 2008).

Feeding practices are related to parental styles which in non-Indigenous groups are classified by the level of control parents have over a child's behaviour, and the level of responsiveness of a parent in terms of the extent that they are supportive and respond to a child's requests (Power 2013). Four parenting styles have been described: authoritative (high level of control and highly responsive), authoritarian (high level of control and low level of responsiveness), permissive/indulgent (low level of control and highly responsive) and uninvolved (low level of control and low level of responsiveness). Whilst these parenting styles have been described for Western parents, their application to other groups is controversial and is highly confounded by different child rearing practices, values and beliefs (Kruske et al. 2012; Power 2013). I discuss differences in Aboriginal child rearing practices further in section 3.8.

Studies of caregiver feeding practices have predominantly been undertaken with White, middle class families and some research has been undertaken with Hispanic, Mexican and African American families in the United States of America (Cardel et al. 2012; Chaidez & Kaiser 2011; Hughes et al. 2006; Woroby et al. 2013). Given that feeding practices are based on a multitude of factors including experience, family/social/cultural norms and expectations and socioeconomic circumstances (Pak-Gorstein, Haq & Graham 2009), they have been found to vary across cultural and ethnic groups (Mena et al. 2015). Cultural interpretations of health, development, behaviour, growth and body size have been found to influence caregivers' feeding practices in the American setting (Dettwyler & Fishman 1992) and historical concerns of hunger, emotional responses to prized high energy foods and increased access to foods that are seen as status symbols have been found to influence the feeding practices of some cultural groups (Kumanyika 2008). Further, research to date has focused on the mother-child feeding relationship, but given the significant role of extended family in feeding and caregiving amongst some cultural groups, further research is required to explore the role of not only the mother in child feeding, but also the feeding practices and influences of other caregivers on children's diets (Mena et al. 2015; Pelto 2008).

Few studies have explored the feeding practices of Indigenous children globally (Rohit et al. 2019) and reports of feeding styles for Australian Aboriginal caregivers have been limited to brief descriptions in ethnographic research, usually describing general child rearing practices (Byers et al. 2012; Hamilton 1981; Harrison 1986; Kruske et al. 2012; Priest et al. 2008). All of these reports indicate that Aboriginal caregivers are highly responsive to children's demands for food and that Aboriginal children have a high level of autonomy in determining what and when they will eat.

Harrison (1986), Hamilton (1981) and Kruske et al. (2012) provide the most detail of caregiver feeding practices from their studies with communities in the Top End of the NT. They report that children are responsible for initiating the provision of food and that there are no routines or set times for eating, however, parents are highly responsive to children's cues of hunger, offering the breast or food on demand. Harrison (1986) details that children initiate feeding milestones such as the introduction of complementary foods or cessation of breastfeeding which are guided by developmental readiness and not by age. Both Harrison (1986) and Hamilton (1981) reported that they observed little interaction between caregivers and children at mealtimes and that children were often unsupervised when eating and were independent with eating skills by two years of age. Harrison (1986) reported that young children often demanded unhealthy foods through grabbing, crying and tantrums and were usually provided with the demanded food, although she noted that this created tension with caregivers who seemed resigned to their inability to influence the eating behaviours of the children. Similar feeding practices have been reported for Native American peoples (Hughes et al. 2017).

3.8 Aboriginal child rearing practices and beliefs

The high level of autonomy by Aboriginal children in feeding decisions as described in the current literature is often reported to align with permissive/indulgent styles of parenting (Kruske et al. 2012; Rohit et al. 2019). This is generally viewed in the research as a deficit and aligns with wider societal perceptions and stereotypes of Aboriginal caregivers; which when viewed with a Western lens and values framework has led to health professionals labelling caregivers as neglectful and non-compliant (Geia 2012; Kruske et al. 2012). These perspectives fail to account for differing childrearing values, such as autonomy and for the impacts of colonisation on family structures, cultural identity and intergenerational trauma (Newton 2019).

A number of non-Aboriginal anthropologists have documented traditional and semi-traditional child rearing practices of Aboriginal caregivers from communities across Australia (Hamilton 1981, 1982; Kearins 1984; Von Sturmer 1980). These have been added to by recent research (Geia 2012; Kruske et al. 2012; Penman 2006; Shaw 2002). Similar to the research on child feeding practices, these accounts are from the view of the non-Aboriginal researcher and the descriptions and rationale for child rearing practices, from the viewpoint of Aboriginal caregivers have been rarely documented.

Aboriginal child rearing practices are not homogenous, however similar traits have been described across groups (Butera 2015; Secretariat of National Aboriginal and Islander Child Care 2011). These are documented alongside commonly reported Western childrearing practices in Table 3.3. The attributes of Aboriginal childrearing practices include the central position of children in the community, collective child rearing approaches that promote independence, autonomy, exploration, cohesion and strong relationships in a safe and nurturing environment and the key role of elders, peers and the whole community in teaching children cultural knowledge, traditions, practices and spirituality (Lohoar, Butera & Kennedy 2014).

Aboriginal concepts of family extend beyond people living in the same household to a more complex kinship system. Child rearing is embedded into a collectivist kinship system in which all members of the community have a role in keeping children safe and ensuring their wellbeing. Kinship describes the social relationships and roles and responsibilities of people in relation to each other, spiritual bodies, the land and cultural practices. It provides an identity within the community and neighbouring clan groups and a secure attachment to the social group (Gee et al. 2014; King 2011). This approach provides multiple opportunities for role modelling and education, which are often the role of extended family members who also assist caregivers in times of stress. There is often a strong bond between children and grandparents who have a role in instilling values, traditions and responsibilities, which facilitates respect for elders (Lohoar, Butera & Kennedy 2014; Malin, Campbell & Agius 1996). However, these practices have been significantly impacted on by government practices.

These collectivist qualities provide children with cultural identity, pride and connection within the community and engage children as active contributors to society (Lohoar, Butera & Kennedy 2014). As I discussed in Chapter 2, these cultural determinants are related to improved health and wellbeing outcomes, therefore an increased focus on these strengths of Aboriginal child rearing practices has been posed as the answer to improving health outcomes and equity for Aboriginal families (Geia, Hayes & Usher 2011).

Table 3.3 Summary of key aspects of Aboriginal and non-Aboriginal child rearing practices

Aboriginal child rearing practices	Non-Aboriginal child rearing practices
Collective community focus based around kinship system- raising children is a shared community responsibility and shared values reinforce relationships, social supports, security and trust amongst members of the community	Parental, immediate family focus Role of grandparents varies
Value independence and autonomy- children are encouraged to learn through observation, exploration and experimentation within a safe environment which is created through the community focused approach	Parents are protective and control opportunities for independent exploration Children learn through verbal instruction
Feature group cohesion, relationships with others are taught and enabled, children are taught to care for, share with and protect others	Individualistic focus
Key role of elders who are highly respected and play key roles in teaching children practical aspects of life and society	
Key role of spirituality which provides identity, connection with others and resilience	
Children are seen as small adults and cultural responsibilities are applied from a young age	Young children are seen as helpless and are reliant on caregivers for survival. They are often excluded from social events due to immaturity
Children determine what they need- there are no routines for eating, sleeping- adults attend to children's cues and demands	Children are fed by parents. Parents develop routines for sleeping and eating
Children are kept in close contact with family members, often held/carried, sleep with caregivers, caregivers are highly responsive to demands and signs of distress	Children are placed in separate beds/rooms to sleep. Concerns of spoiling children with too much attention
Developmental activities such as introduction to solid foods are determined by child or by developmental readiness cues	Parents monitor child's age to determine developmental readiness

(Butera 2015; Kearins 1984; Lohoar, Butera & Kennedy 2014)

3.9 Chapter summary

In this chapter I summarised the extensive evidence that nutritional intakes during the weaning period have substantial influences on both health and socioeconomic outcomes for children. Therefore, optimising dietary intakes, growth and development in early childhood may assist in addressing the health inequities experienced by Aboriginal peoples. However, if actions targeted to the first 1000 days of life are to be effective they must consider and prioritise the socio-cultural determinants of health and nutrition that align with Aboriginal constructs of wellbeing introduced in chapter 2.

There is a small but growing body of knowledge of the dietary intakes of young children in Australia. This has been limited as children under 2 years of age are not captured in national dietary surveys. Current knowledge is predominantly limited to whole of population data or studies with White, middle class families and few studies have been undertaken with Indigenous children or families, particularly during the time of weaning. Current research is underpinned by Western constructs of health and nutrition and is limited to the exploration of whether dietary intakes comply with dietary and infant feeding guidelines. These guidelines adopt a ‘nutritionism’ approach that is limited to understandings of the role of nutrients and their impact on physiological functions and disease. The guidelines ignore the socio-cultural context of food and eating and the importance of food in personal and cultural identity. Hence, they are framed as universally applicable to all groups of people and do not incorporate Aboriginal knowledges into their development or delivery.

There is minimal knowledge of the context or determinants of eating practices across cultural groups, including for Aboriginal children, despite knowledge that dietary intakes and feeding practices vary between socio-cultural groups. Research indicates that how children are fed and the food environment may be just as influential on dietary intakes and health outcomes as the foods consumed. This concept however has not been explored with Indigenous groups and there is minimal knowledge of the caregiver feeding practices or family food environment of Aboriginal families. Aboriginal caregiver practices have been widely described and contrasted to those of Western caregivers, often with a deficit lens. The strengths of collective child rearing practices and strategies to build identity, resilience and autonomy have not been explored with regards to feeding. Further research is clearly needed to describe Aboriginal children’s diets and the determinants of dietary practices from the viewpoint of the Aboriginal caregiver and with consideration of Aboriginal constructs of health and determinants of health, so that strategies to meet caregiver needs and optimise child health, development and wellbeing can be developed.

4 HEALTH/NUTRITION IN REMOTE COMMUNITIES IN THE NORTHERN TERRITORY

In this chapter, I describe child health and nutrition service provision in government operated health clinics in the remote communities of the NT, including the roles of health professionals in nutrition education and the policies and frameworks that guide nutrition activities. I also explore the accessibility and effectiveness of health service provision and describe existing knowledge relating to the nutrition activities of health professionals that are targeted to Aboriginal peoples. This knowledge provides importance context to health service provision in this study.

Primary healthcare approaches have been posited as the most appropriate for Aboriginal communities, given the holistic view of health and principles of community empowerment espoused by these models (Griew et al. 2008). Despite reference to primary healthcare in national and territory level policies and strategies for remote Aboriginal communities there is significant evidence that there are a number of barriers to health service access for Aboriginal peoples (Bailie et al. 2008; Tanner, Agius & Darbyshire 2004) which contribute to the health inequities described in section 2.3 (National Aboriginal and Torres Strait Islander Council 2003; Prime Ministers Science Engineering and Inovation Council 2008). I review this evidence and the contributing factors to current practices then explore the proposed enablers and approaches, including cultural safety, that could be applied to increase the effectiveness of primary healthcare services and better meet the needs of Aboriginal peoples.

4.1 Health services in Central Australia, Northern Territory

The NT covers approximately one sixth of mainland Australia, yet is home to only one percent of Australia’s population (Northern Territory Government 2019). Around 16% of the NT population reside in the southern, desert region of the territory known as Central Australia with remainder living in the tropical Top End (Northern Territory Government 2019). One third of the population in the NT are Aboriginal peoples, 80% of whom live in remote or very remote regions. As discussed in Chapter 2, the proportion of Aboriginal peoples living in remote areas of the NT is much greater than other regions of Australia, for example in Western Australia 38% of the Aboriginal population live in remote areas, which is the second highest remote dwelling jurisdiction (Northern Territory Government 2019).

Figure 4.1 displays the Central Australia health service region which covers 64.7% (872 861km²) of the NT geographical area and is characterised by two large major centres, Alice Springs and Tennant Creek, a number of major communities and several small discrete communities (Northern Territory Government 2015a). Tertiary level hospital care is located in Alice Springs, along with major community health centres, which are provided by both government and Aboriginal Community Controlled Health Organisations (ACCHOs). A smaller regional hospital and community health service are located in the township of Tennant Creek, whilst approximately thirty small health clinics are located in remote communities across the remainder of the region. Whereas Aboriginal medical services provide the highest number of episodes of primary healthcare for Aboriginal peoples across the NT (Aboriginal Medical Services Alliance Northern Territory 2016), government services provide significant care to people in remote Aboriginal communities. These services are universal, however the majority of clients attending these services are Aboriginal (Australian Institute of Health and Welfare 2016a).

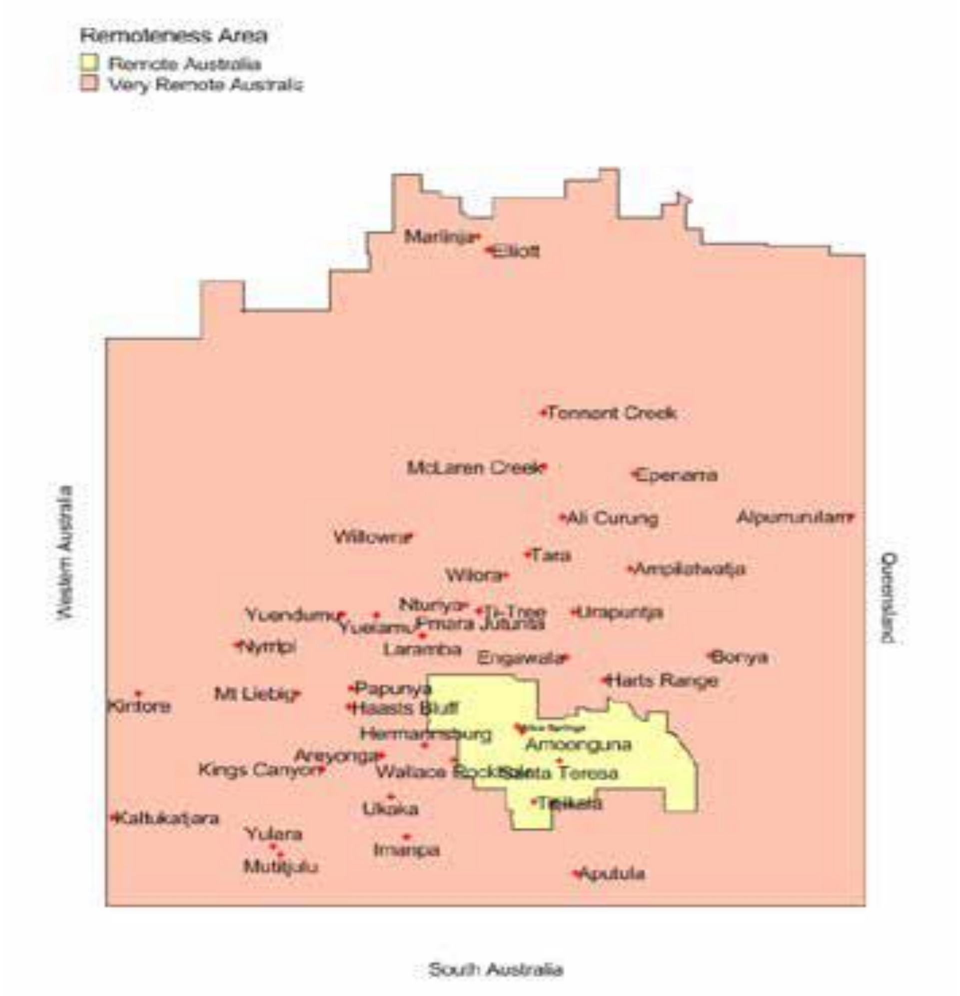


Figure 4.1 Health services in Central Australia, NT

Source: (Northern Territory Government 2015a)

Remote health clinics offer outpatient services and are generally staffed by Remote Area Nurses (RANs), one of which may act as the Primary Health Centre Manager (PHCM); and registered Aboriginal Health Practitioners (AHPs) or non-registered Aboriginal CBWs. However, the number of Aboriginal Health Workers has been reducing over recent years and some clinics do not employ Aboriginal staff. Larger centres may also have an onsite Remote Medical Practitioner (RMP) and/or a Child and Family Health Nurse (CFHN) or midwife. RMPs and other health staff including CFHNs and Public Health Nutritionist/Dietitians (PHNs) visit most communities as a regular outreach service, averaging monthly visits, and some communities are also serviced by Health Promotion Officers (HPOs). Specialist staff such as paediatricians, dental and other allied health services, visit communities a few times a year.

Remote health services in the NT are highly isolated and the role of the RAN is diverse incorporating emergency services, clinical care and preventative and health promotion activities (Council of Remote Area Nurses 2003). RANs are therefore required to have advanced clinical and trauma management skills, in addition to high level cultural skills (Dunbar, Bourke & Murakami-Gold 2019), although cultural skills are generally not assessed. RANs generally undertake some further on the job training in Indigenous health, cultural safety and primary healthcare (Keast 2017), however this is limited despite dominant backgrounds in urban acute care settings, and only 5% have post graduate qualifications in remote health practice (Lenthall et al. 2011). Few RANs have child health qualifications (Lenthall et al. 2011), however dedicated CFHN positions, which require post graduate qualifications in child health, are provided as specific support roles. There is a high turnover of RAN positions, an estimated 57% per annum (Garnett et al. 2008), leading to a high reliance on short term agency staff to fill positions (Rickard, Brown & Eaton 2009). This high turnover of staff has been associated with higher rates of patient hospitalisations and higher healthcare costs (Zhao et al. 2019).

PHNs are employed to undertake health promotion and clinical roles as outreach services to remote communities. Historically these positions only undertook public health activities, however from 2013, individualised and group based medical nutrition therapy was integrated into the role and Dietetic qualifications are now required for the position. Each PHN provides services to a number of remote communities through overnight-weekly visits approximately every one-two months. The diversity of practice requires a range of public health, clinical and cultural competencies (Colles, Belton & Brimblecombe 2016; Hughes 2003).

4.2 Health professional experiences of working with remote Aboriginal communities

Health professionals have described their work with remote Aboriginal communities as highly rewarding (Bent 1999), however they describe a range of challenges, including a lack of preparation for the role (Bar-Zeev 2013; Colles, Belton & Brimblecombe 2016; Kowal & Paradies 2005; Rae et al. 2016; Taylor 2010), which may create a level of fear and discomfort (Bennett, Zubrzycki & Bacon 2009; Taylor 2010; Thomas, Gray & McGinty 2011; Wilson et al. 2015). One study by Lowell (1998), reported that of the 10% of NT health department staff she surveyed, 82% reported some difficulties in their interactions with Aboriginal clients. This uncertainty and ensuing discomfort is heightened by inadequate support from management, lack of access to resources and professional support, large workloads and the time required to develop and implement effective programs (Bar-Zeev 2013; Bent 1999; Colles, Belton & Brimblecombe 2016).

Primary healthcare professionals in Australia are predominantly White, middle class and university educated (Kowal & Paradies 2005), with up to 80% of nurses obtaining their qualifications in Australia (AIHW 2016c). Only 1.6% of the workforce are Aboriginal or Torres Strait Islander people, most of whom are employed in Aboriginal specified roles. There is an increasing number, up to 41%, of overseas trained health professionals, especially in regional areas (Australian Institute of Health and Welfare 2018). Wilson et al. (2015) identified that non-Indigenous staff working in Aboriginal health described that they lacked practical knowledge, feared aspects of their practice and perceived the area of work as too hard. Confidence in practice and the ability to overcome barriers were associated with willingness to work in the area, awareness of own cultural identity and its influence on practice and understanding of the impacts of historical, social and political practices on health. Culturally safe approaches to healthcare (Taylor 2010) and reflexive practice (Wilson 2014) have been recommended as ways to assist health professionals to become more confident and better skilled to work in Aboriginal health.

4.3 Policies directing nutrition activities in remote Aboriginal communities in the NT

The practices of health professionals are directed by local health service policies and guidelines. These are in turn determined by territory and national level policies that influence the funding and resources provided at the local level to address identified concerns and strategies. In the following section, I describe the policies that guide the nutrition related practices of health professionals in the NT, which form an important part of the context of the work environment for the health professionals participating in this study.

4.3.1 National and Territory level guiding child health and nutrition policies

A number of national and territory level policies and strategies guide the nutrition activities of government agencies in remote NT communities, illustrated in Figure 4.2. Similar policies guide the activities of non-government health organisations. In Australia, the federal government is responsible for the provision of primary healthcare services and the state and territory governments are responsible for acute care services.

Recent updates to national level policies specific to Aboriginal and Torres Strait Islander health (Close the Gap Refresh and National Aboriginal and Torres Strait Islander Health Plan) have incorporated a strengths-based approach, referenced the Indigenous social determinants of health and acknowledged the importance of partnerships with Aboriginal peoples and Aboriginal controlled organisations. However, data to monitor the implementation of these continues to rely on binary comparisons with the non-Indigenous population, leading to a deficit narrative that is not reflective of the worldviews and priorities identified in the plans (Walter 2018).

Territory level plans are often targeted to the whole of the population; however, given the large proportion of Aboriginal peoples residing in the NT, a significant number of the strategies address Aboriginal health priorities. Whilst developed by health experts, these plans do indicate community consultation with Aboriginal peoples in the determination of priorities and highlight the importance of culturally safe practice, partnerships with Aboriginal communities and cross-sector collaboration. A primary healthcare focus on prevention of disease is evident and the social determinants of health are referenced as key influences on health. Programs such as Healthy Under 5 Kids, whilst based on biomedical indicators that align with Western views of health, acknowledge cultural differences in views of health and child rearing and highlight the importance of consultation with families in their supporting documents.

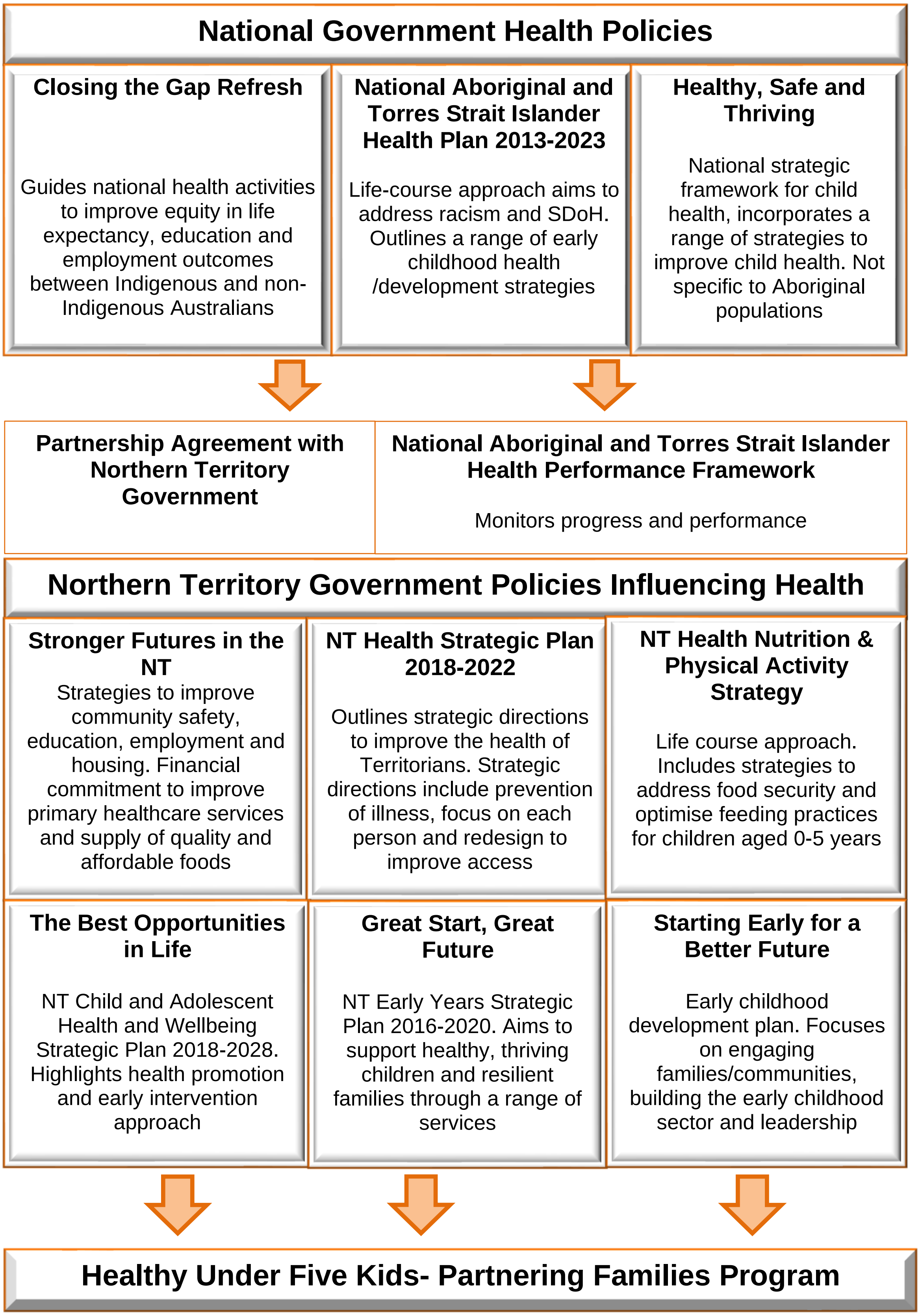


Figure 4.2 Policies informing the practices of health professionals in the NT

References: (Australian Government 2012b, 2013b; Council of Australian Governments 2015, 2018; Kruske & Donovan 2009; Northern Territory Government 2015b, 2016a, 2018a, 2018b, 2018c)

A national nutrition policy is a notable exception from these guiding documents. Whilst strategies to promote breastfeeding are documented in the Australian National Breastfeeding Strategy (Commonwealth of Australia 2009a, 2018), nutrition strategies are missing from or downplayed in recent national and Aboriginal health plans (Browne, Hayes & Gleeson 2014). A national nutrition policy has not been updated in Australia since 1992 (Commonwealth Department of Health 1992), despite the recommended establishment of a National Food and Nutrition Framework and appeals to create an updated national nutrition policy by various government taskforces and peak bodies since 2008 (Vidgen et al. 2017). Similarly, whilst the 1989 National Aboriginal Health Strategy (National Aboriginal Health Strategy Working Party 1989), included a number of nutrition strategies and the National Aboriginal and Torres Strait Islander Nutrition Strategy and Action Plan 2000-2010 (Strategic Inter-governmental Nutrition Alliance 2001) guided nutrition activities for a period of time, these have not been updated since their expiry. Key researchers have proposed that a national nutrition policy would improve the coordination, structure, funding and accountability of nutrition strategies across government and non-government agencies (Public Health Association of Australia et al. 2017; Yeatman 2007).

4.3.2 NT nutrition and physical activity strategy and Healthy Under Five Kids program

The NT nutrition and physical activity strategy 2015-2020 (Northern Territory Government 2015b) guides the nutrition related health promotion activities of health professionals in the NT. Nutrition promotion is seen to be the role of all health professionals, although the amount and type of intervention would vary by role with PHNs, CFHNs and HPOs, whose role specifies the implementation of preventative health activities, undertaking most of the health promotion activities.

The focus of early childhood nutrition activities are education based and include the promotion of exclusive breastfeeding for the first six months of life, counselling about introduction of complementary foods at six months of age and early identification and action on growth faltering, anaemia and obesity (Northern Territory Government 2018b). I have listed the recommended strategies relating to early childhood in Table 4.1 below. Other relevant activities focus on improving the food supply through implementation of store policies, education of store staff and contribution to store-based activities that promote healthy eating.

Table 4.1 Recommended nutrition strategies: NT nutrition and physical activity strategic plan

Strategies within the health sector	Strategies in the home/ family/community setting	Strategies in early childhood centres
Implement the National Breastfeeding strategy and develop an NT action plan	Promote exclusive breastfeeding to six months	Provide education and assistance in developing nutrition policies and menu planning
Integrate promotion of breastfeeding into health staff activities	Provide messages consistent with the Infant Feeding Guidelines on breastfeeding and introduction to solids	
Enhance data collection of breastfeeding rates	Create supportive environments for healthy eating	
Early identification and follow up of growth, anaemia concerns	Build community capacity to support and promote healthy feeding practices	
	Ensure stores comply with Marketing of Formulas (MAIF) agreement	

(Northern Territory Government 2015b)

4.3.2.1 Healthy Under 5 Kids Program

The key program underpinning the nutrition activities targeted to young children living in remote areas of the NT, is the Healthy Under Five Kids Program (HU5K) (Kruske & Donovan 2009). This program is predominantly implemented by RANs and AHPs (where available or permitted to work in this capacity), with the support of CFHNs and RMPs. Arising issues are referred onto PHNs and paediatricians.

HU5K is a standardised schedule of practice which is based on primary healthcare principles and aims to extend the focus of health services beyond an acute model of care (Kruske & Donovan 2009). The program includes a series of standard child health checks which are built into the medical records system as a set of age-related recalls prompting the delivery of screening activities to monitor and detect any concerns with growth, child development, nutrition and social and emotional health. The program also screens for common health concerns such as anaemia, ear infections and dental decay, with referral to specialist staff for any arising concerns. All issues identified as concerns are based on biomedical understandings of health, and whilst the education guide accompanying the program does prompt health professionals to recognise that the worldviews of the family may be different to those of the practitioner, differences in concepts of health and wellbeing are not specifically incorporated into the program.

Anticipatory guidance or proactive education on upcoming nutritional and developmental expectations is recommended at each health check. Nurses are also prompted to ask questions regarding the living environment of the family “to assist remote health providers to identify some of the contributing factors to poor health that health staff may be able to assist to remediate” (Kruske & Donovan 2009 p161). However the package highlights that “many of the problems experienced in remote communities are social and historical in origin and cannot be remedied by the local health staff” (Kruske & Donovan 2009 p6). It guides staff that it is their “responsibility to work with the various other agencies to try to address the problem” (Kruske & Donovan 2009 p161) but does not provide specific advice on how to do this. Remote health professionals are also encouraged to work with visiting outreach staff, in addition to locally based Aboriginal health and CBWs, childcare and women’s centre staff to assist in meeting family’s needs (Kruske & Donovan 2009 pp167-168).

4.4 Primary healthcare approach to service provision

Remote health and nutrition services in the NT are provided under a primary healthcare framework (Northern Territory Government 2018b) and are underpinned by a cultural security policy and framework (Northern Territory Government 2016b, 2016c). In this section, I outline the characteristics of primary healthcare and provide evidence of its potential to enhance health service access and outcomes for Aboriginal communities when applied comprehensively. I explore its application and the enablers and barriers to its access for Aboriginal peoples.

4.4.1 Definition of primary healthcare

Primary healthcare has been identified as a key approach to improve health equity for Aboriginal peoples (Griew et al. 2008; Harfield et al. 2018; Starfield, Shi & Mackino 2005; Wakerman et al. 2015). A global commitment to primary healthcare approaches was reconfirmed in the 2018 Astana Declaration and primary healthcare was identified as ‘the most inclusive, effective and efficient approach to enhance people’s physical and mental health, as well as social wellbeing’ (World Health Organization 2018 p 5).

The initial concept of primary healthcare was launched by the World Health Organization (WHO), as part of the Alma Ata declaration (World Health Organization 1978). There is however no universal definition of primary healthcare and it is often discussed as both a level of care and an approach to care (Talbot & Verrinder 2005). The National Aboriginal Controlled Community Health Organisation (NACCHO) state that primary healthcare is “an Aboriginal cultural construct” and a “continuing integral aspect of our Aboriginal life” (NACCHO nd). They define primary healthcare as a holistic approach of integrated care (promotive, preventative, curative and rehabilitative), which is provided close to where people live and incorporates not just physical health but spirit, land, custom and socio-economic status. This definition aligns with a comprehensive view of primary healthcare which focuses on the prevention of disease and promotion of health across the life course, using a self-determination and equity approach and which builds the capacity of the community, to influence health outcomes and services (Griew et al. 2008; World Health Organization 1978). The key principles of comprehensive primary healthcare are:

- Encompasses a holistic social view of health
- Acknowledges the socio-cultural and political characteristics of the community
- Advocates for and acts on the social determinants of health
- Focuses on treatment, prevention and health promotion
- Applies a multi-disciplinary approach
- Offers universal services, targeted to those most in need
- Engages community participation in decision making
- Empowers individuals and the community

(Southgate Institute for Health Society and Equity 2019)

4.4.2 Application of primary healthcare in Australia

Research has not demonstrated how primary healthcare principles or frameworks are applied to practice in Australia or the outcomes of their application (Halliday & Segal 2012; Labonté et al. 2008). Instead, most research reports on case studies of effective programs and service models (Lawless et al. 2014). Arguably, primary healthcare in Australia more closely aligns with primary care, by acting as a first line point of care, focusing on interventions that target the diagnosis or management of specific diseases, particularly chronic diseases, and failing to act on the determinants of health (Commonwealth of Australia 2009b; Labonte et al. 2008; Lawless et al. 2014). The form of primary healthcare currently applied in Australia has been termed ‘selective primary healthcare’ (Baum et al. 2017).

Selective primary healthcare occurs due to a high demand for acute services, which likely reduces the capacity to undertake other preventative activities. As such, the delivery of preventative healthcare services and health promotion activities in Australia have been reported to vary widely (Bailie et al. 2017; Bailie et al. 2011), but are generally deficient (Rubio-Valera et al. 2014). For example, audit data in the NT indicated that only 11% of client attendances at health services were for the provision of preventative health assessments, whereas 48% were for acute care (Bailie et al. 2017). Barriers to undertaking preventative care, identified by health staff, include high demand for acute services, high staff turnover, inadequate access to and use of Aboriginal health workers, lack of cultural orientation and lack of resources, interest, knowledge and skills in primary health (Bailie et al. 2017; Douglas et al. 2009; Rubio-Valera et al. 2014).

The tendency of health services to provide acute models of care that focus on treatment and individual behaviour interventions, despite upper level policies that promote action on the Social Determinants of Health (SDoH), has been termed “lifestyle drift” (Hunter et al. 2010). This is related to the medicalisation of health, discussed in Chapter 5. The focus on individual behaviours as responsible for health is driven by medicalised understandings and is reinforced by neoliberal economic discourses that gained momentum in the 1980s in the wake of global economic insecurity, which enforced drastic cuts to public health funding and led to the rise of privatisation of health and other social services (Baum et al. 2016). This ‘neoliberalism’ became entrenched in healthcare practices that emphasised the moral responsibility of the individual as opposed to societies and governments, in maintaining health (Baum et al. 2016). As a result, the funding, resources and performance indicators directing government health service provision have been targeted to acute and individualised behaviour change models of care; and funding and responsibility for preventative health and action on the determinants of health has reduced, leading to inequitable health outcomes (Baum & Fisher 2014).

4.4.3 Barriers to primary healthcare for Aboriginal peoples

Despite free access to most preventative and treatment health services in Australia, it is reported that Aboriginal peoples are less likely to engage with early intervention and preventative services, and access the health system late in the disease process and for emergency care (Australian Government 2016). A number of barriers to accessing care have been documented, from both health professional (Artuso et al. 2013; Gibson et al. 2015; Jennings, Spurling & Askew 2014; Marrone 2007; McBain-Rigg & Veitch 2011) and Aboriginal client perspectives (Artuso et al. 2013; Aspin et al. 2012; Gibson et al. 2015; McBain-Rigg & Veitch 2011; Smith, Fatima & Knight 2017).

Barriers to primary healthcare, reported by Aboriginal clients include a lack of access to culturally appropriate care and lack of adaptation of programs to meet their needs, with programs instead based on assumed need (Aspin et al. 2012; McBain-Rigg & Veitch 2011; Smith, Fatima & Knight 2017) and underpinned by Western values and constructs (Reid & Taylor 2011). Experiences of racism, exclusion and marginalisation are also common (Aspin et al. 2012; Marrone 2007), discussed in section 2.6.2.

Researchers have reported that essentialist views of culture are common in Australian society (Kowal, Franklin & Paradies 2013; Paradies 2006a) and may be reinforced by some cultural awareness training (Kowal & Downing 2011; Williamson & Harrison 2010). Essentialist views of culture, also known as culturalism, attribute differences between groups to racial or ethnic traits or characteristics, leading to bi-cultural views of difference, inferiority and superiority between Aboriginal and non-Aboriginal people (Browne & Varcoe 2006; Dutta 2007). They also lead to Othering which is the creation of one's own identity as a norm, compared to a created identity of the Other who has different beliefs, norms and practices to one's own (Canales 2010; Johnson et al. 2004). The cultural traits of the Other are then applied as assumed knowledge of the other group, often as socially replicated stereotypes (Browne & Varcoe 2006; Dutta 2007; Reimer Kirkham 2003). This acts to reinforce positions of domination and acts of oppression (Johnson et al. 2004). Othering can also be seen in deficit discourses and the problematising of Aboriginal peoples in healthcare interactions (Taylor 2010). The discourses informing health professional's practices have been reported to be likely unknown (Browne & Smye 2013) and health professionals may feel powerless to address them, due to a lack of preparation and stress (Taylor 2010) and the stigma associated with White history and privilege in the Aboriginal health field (Kowal 2011).

Providing health professionals with the tools to enable them to unpack the impacts of the postcolonial socio-political environment on health outcomes and service provision (Kowal & Paradies 2005) and strengthening health professional reflection on these attributes (Wilson et al. 2015) complements a culturally safe approach to practice. This is required at both interpersonal and organisational levels, if health inequities are to be addressed and reconciliation enacted (Downing & Kowal 2011; Paradies 2006a). I discuss these concepts further in section 4.5.

In line with the report that health professionals may be unaware of the discourses shaping their practices and the impacts of these on healthcare access; the barriers to healthcare reported by non-Aboriginal health professionals are more likely to focus on structural factors, such as poverty and remoteness (Kowal & Paradies 2005), cultural barriers and a perceived lack of knowledge or interest in improving health outcomes (Jennings, Spurling & Askew 2014; McBain-Rigg & Veitch 2011; Smith, Fatima & Knight 2017).

Ineffective communication and low health literacy have however, been cited as barriers to accessible and effective healthcare by both Aboriginal peoples and health professionals (Artuso et al. 2013; Cass et al. 2002; Lowell et al. 2012; McBain-Rigg & Veitch 2011). Miscommunication has been attributed to language barriers, the use of jargon and inadequate use of interpreters and Aboriginal health staff. In addition, a lack of consultation about the timing of the interaction and what information is provided along with a dominance of biomedical knowledge, have been cited as causes of miscommunication in intercultural interactions (Cass et al. 2002; Lowell et al. 2012). Cass et al. (2002) and Lowell et al. (2012), report that miscommunication is pervasive and is generally unrecognised or is regarded as the norm by health professionals. As such, shared understandings are rarely achieved between non-Aboriginal health professionals and Aboriginal clients. The consequences of miscommunication however, are highly significant, not only in reducing access to healthcare, but in impacting on quality and safety of care, disempowering Aboriginal peoples and leading to fear and mistrust of both health professionals and the health system by clients (Artuso et al. 2013; Smith, Fatima & Knight 2017; Taylor 2010). However, some agency may be retained, with Lowell et al. (2012) reporting that Aboriginal peoples have deliberately withheld information in response to miscommunication concerns and Taylor (2010) describing that information is provided in order to maintain harmony and prevent dissonance. These barriers indicate that culturally unsafe practices are common in health service provision.

4.4.4 Enablers of primary healthcare for Aboriginal peoples

Research in Australia has identified certain traits of primary healthcare services that encourage their use by Aboriginal peoples. These are displayed in Figure 4.3 arranged under the Aboriginal identified priorities of culture, empowerment and community that I highlighted in section 2.6 as key constructs for wellbeing (Cairney et al. 2017). It is important to recognise that each individual trait identified in this image is important in enhancing the acceptability of services, however Harfield et al. (2018) and Cairney et al. (2017), argue that it is the interplay of factors that ultimately determines access to care.

These enablers highlight the importance of genuine partnerships that are built on trust, respect and reciprocity when working with Aboriginal peoples and communities (Reid & Taylor 2011). It is the inclusion of Aboriginal peoples in determining and addressing local issues that are central to their health and wellbeing (Nguyen & Cairney 2013; Peiris, Brown & Cass 2008), that ultimately empowers individuals and communities and leads to enhanced health service access and improved health outcomes (Peiris, Brown & Cass 2008). Whilst the importance of meaningful partnerships are widely recognised in the literature (Campbell, Pyett & McCarthy 2007; Gibson et al. 2015; Griew et al. 2008; Harfield et al. 2018), most health and social interventions delivered in communities to date have been based on the needs identified by non-Indigenous policy makers and staff and applied in ‘top down’ approaches, with minimal community engagement (Cairney et al. 2017; McRae-Williams et al. 2018). Campbell, Pyett and McCarthy (2007), attribute this to the power imbalances between Aboriginal peoples and policy and program developers.

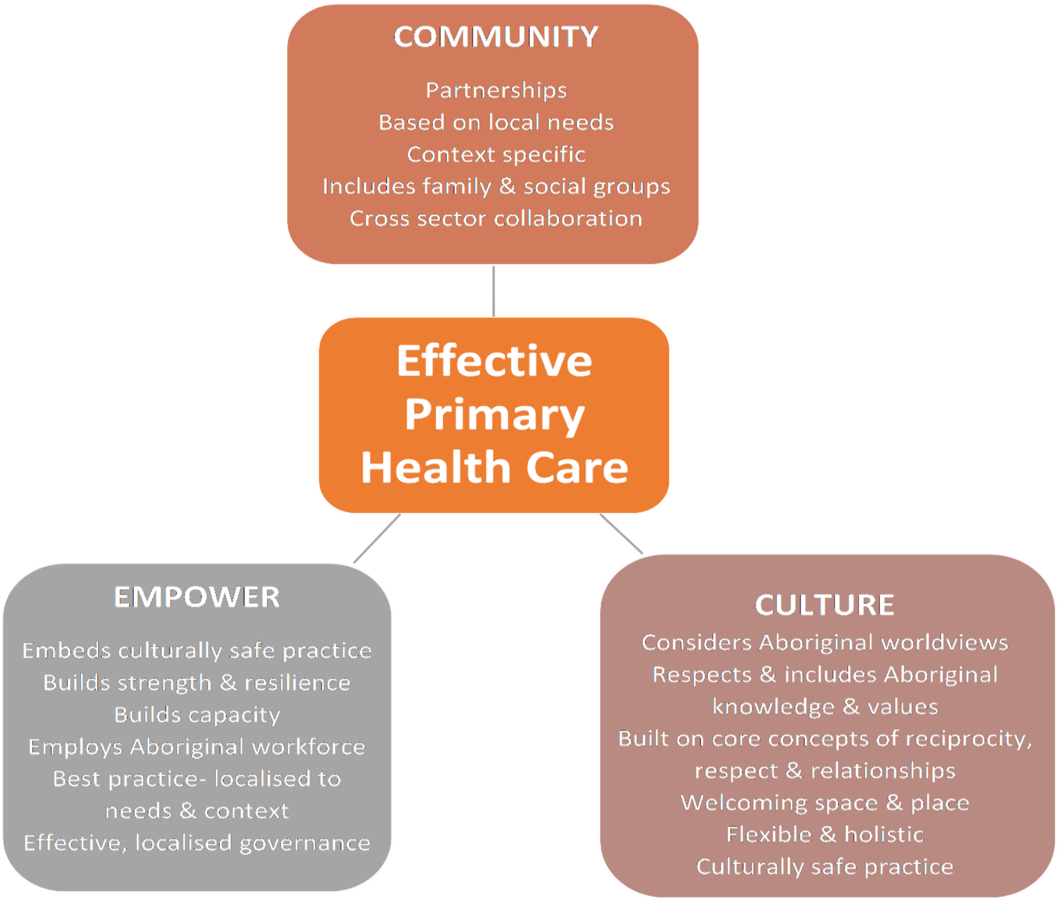


Figure 4.3 Enablers of effective primary healthcare with Aboriginal peoples

References for Figure 4.3 (Aspin et al. 2012; Black 2007; Cairney et al. 2017; Griew et al. 2008; Gwynne, Jeffries & Lincoln 2018; Harfield et al. 2018; Jennings, Spurling & Askew 2014; Lau et al. 2012; Shannon et al. 2002; Wakerman et al. 2009)

As discussed in section 2.6.5, the strong influence of empowerment and control on the health and wellbeing of Aboriginal peoples is well documented in the literature (Askell-Williams et al. 2007; Bobba 2019; Eckermann 2010; Lindeman, Taylor & Reid 2011; Whiteside et al. 2014). Empowerment is also promoted as a principle of the Ottawa Charter of Health Promotion (World Health Organization 1986). It is built through meaningful inclusion in decision making (Durey & Thompson 2012) and the use of culturally safe practice and activities that build the strength and identity of Aboriginal peoples, such as respect and consideration of worldviews, knowledge and spirituality and inclusion of Aboriginal languages, cultural activities and ceremonies (Brascoupé & Waters 2009). New models of research (Kendall et al. 2011) and calls for culturally safe care (Williamson & Harrison 2010) highlight the need for health professionals and researchers to utilise participatory approaches that foster lateral knowledge exchange and empower Aboriginal communities to determine the application of cultural knowledge and practices to improve health and wellbeing.

Whilst ACCHOs are positioned to enhance access to primary health services through localised control, a higher tendency to implement principles of culturally safe care and to offer services that reflect local concerns and values, and address the SDoH (Davy et al. 2016; Harfield et al. 2018; Peiris, Brown & Cass 2008); a range of health services are provided by the government sector. Hence, responsibility for addressing health inequities lies not only with Aboriginal peoples and organisations, but with the government health system (Durey & Thompson 2012). It is apparent that the government health sector and non-Aboriginal staff can respond to these enablers and barriers through application of the principles of equitable primary healthcare and culturally safe practice.

4.5 Cultural security framework

As highlighted above, culturally safe practices are essential enablers of effective and equitable primary healthcare and nutrition services with Aboriginal communities. I discuss in section 4.6.1.2 that they are also crucial components of effective nutrition interventions and health education. The persisting health inequities and barriers to healthcare for Aboriginal peoples indicate that the cultural safety practices of health staff require further assessment (Heke, Wilson & Came 2018).

In recognition of the large Aboriginal population it services and the centrality of culture in how health and healthcare is viewed and accessed, the NT DoH developed a cultural security policy and framework (Northern Territory Government 2016b, 2016c), to ensure that health services recognise and support Aboriginal cultural rights, views and values. The policy aims to ensure that there is a diversity of staff employed, that a whole of organisation approach to cultural security is implemented within a quality improvement approach, that consumer and community participation are enabled and that communication is effective. The cultural security framework aims to achieve system-wide support for

> activities, behaviours, policies and standards that promote the highest level of cultural competence in individuals, services and organisations… [to build] a system where Aboriginal peoples feel safe, secure and able to participate as staff and consumers of NT Health without fear of judgement or discrimination (Northern Territory Government 2016b p16).

4.5.1 Cultural frameworks for healthcare

Culturally respectful practice has long been an expectation of healthcare and a number of frameworks have been developed to build the cultural competence of health professionals and health services. Several of these terms are used interchangeably, however the differences between the frameworks can significantly influence health professional's understanding of culture and how knowledge is applied to healthcare interactions (Williamson & Harrison 2010).

An interest in culture and healthcare developed from the concept of transcultural nursing, described by American nursing academic Madeleine Leininger (1988). Transcultural nursing proposes that people from cultural backgrounds that differ to the health professionals have different expectations for their care, and therefore health professionals require an understanding of the meanings applied to health practices by different cultural groups (Williamson & Harrison 2010). Although widely endorsed by the nursing profession, transcultural nursing has been criticised for its essentialist view of culture, which is dominant in healthcare literature (Oikarainen et al. 2019; Williamson & Harrison 2010).

In Table 4.2, I summarise the established cultural approaches applied to healthcare services, which are described by some authors as a continuum from cultural awareness to cultural respect or safety. Many of these approaches rely on health professionals developing an awareness of the cultural needs of clients, which is imparted by learning about the generalised traits of cultural groups, so that health professionals may modify their service provision (Downing & Kowal 2011). This leads to the application of essentialist views of culture, rather than adaptation of practice to meet the individual needs of clients. It thereby results in health professionals applying their cultural knowledge in a 'cookbook' approach to care, in which standardised care plans and modifications to practice are used as generic 'culturally appropriate' care models for people from specific cultural groups (Bruni 1988; Williamson &

Harrison 2010). Further criticisms of these approaches include their tendency to create 'victim blaming' by health professionals who fail to account for the influence of the broader determinants of health on peoples behaviours (Browne & Smye 2013) and the labelling of clients as 'deviant' for their noncompliance to health professionals' norms and expectations (Williamson & Harrison 2010).

Table 4.2 Culturally appropriate models of healthcare provision

Cultural Framework	Key principles
Cultural awareness	Increases awareness of cultural traits and differences Can lead to generalisations and stereotyping
Cultural sensitivity	Sensitivity to differences promotes modifications to practice suiting the needs of clients from different cultural groups
Cultural competence	Various definitions- generally the development of a set of skills and knowledge that tailor care to meet the needs of clients from different cultural groups May or may not include reflection of own culture by health professional or recognition of the role of historical and social influences Competence is determined by peers and seen as an endpoint
Cultural respect	Focused on culturally appropriate health service environments
Cultural humility	The health professional reflects on their practices, assumptions, power imbalances and privilege in their interactions with clients Continuous and lifelong approach
Cultural safety	Culture is not limited to ethnicity/race The health professional critically reflects on their own culture, power and privilege and understands the influence of historical practices on their practice, position and actions and those of their clients. Attempts to empower clients by promoting the voice and agency of clients Safety of care is determined by the client

(Taylor & Guerin 2019)

4.5.2 Cultural safety

The cultural security framework of the NT DoH aims to enable Aboriginal peoples access to culturally safe health services. The concept of cultural safety developed from New Zealand in the 1990s in response to concerns of health inequities for Māori people and the resulting need for nurses to understand the effects of colonisation on the Māori people and to adjust their practice accordingly (Ramsden 2002). Although cultural safety originated in New Zealand, the concept has been embraced by countries with similar colonising histories, in particular Canada (Brooks-Cleator, Phillipps & Giles 2018; Browne et al. 2009; Nelson & Wilson 2018) and

Australia (Laverty, McDermott & Calma 2017; Taylor & Guerin 2019; Van den Berg 2010). Not all authors agree the concept is transferable however, due to the differing histories of colonisation- for instance a lack of treaty and delayed acknowledgement of Aboriginal peoples as citizens and the diversity, as opposed to bi-culturalism, of Indigenous groups in other countries (Johnstone & Kanitsaki 2007a; Smye & Browne 2002). The benefits of culturally safe approaches however have been reported to outweigh these problems (Smye & Browne 2002).

Cultural safety is often perceived as surpassing cultural competency on a continuum of culturally appropriate care (Brascoupé & Waters 2009). This view however has been criticised and cultural safety can be more accurately described as a complete paradigm shift from other approaches. This is because unlike other approaches cultural safety requires an analysis of the health professional's cultural identity, reflexivity on power relationships and ultimately the empowerment of the client in determining culturally appropriate care (Brascoupé & Waters 2009).

There has been growing awareness that to respect other cultures, a health professional must first recognise their own culture and how this influences their practice (Williamson & Harrison 2010). This self-reflection has been identified as particularly important for people from colonising groups, due to the ongoing power of the dominant group in shaping government policies (Browne & Smye 2013) and the entrenched intentional or unintentional actions that privilege the views and practices of non-Indigenous people whilst marginalising and oppressing the voice and agency of Aboriginal peoples (Brascoupé & Waters 2009; Williamson & Harrison 2010). These practices have been defined as racism (Priest et al. 2011) and structural violence (Farmer et al. 2006) and often occur, unrecognised, by society and in the practice of health professionals from the dominant societal culture (Browne & Smye 2013; Kowal 2011; Kowal & Paradies 2005; Williamson & Harrison 2010). Whilst they may be largely unrecognised, these practices may be related to and/or result in significant trauma and mistrust of government systems (Williamson & Harrison 2010).

4.5.2.1 Principles of cultural safety

There are a variety of definitions of cultural safety, derived from the work of Ramsden (2002). Whilst there is agreeance that the concept is not a theory, a variety of terms have been applied to its conception including educational framework (Ramsden 2002), model (Duke, Connor & McEldowney 2009) and set of guiding principles (Brascoupé & Waters 2009; Browne et al. 2009). This has led to the concept being poorly understood by health professionals (Johnstone & Kanitsaki 2007b; Kurtz et al. 2018) and there is no comprehensive framework for its application to practice settings (Anderson et al. 2003; Brascoupé & Waters 2009; Browne et al. 2009; Johnstone & Kanitsaki 2007b). As a result it has not been applied, in its intended manner, to clinical settings (Williamson & Harrison 2010) and evidence of its benefits on health outcomes is lacking (Brascoupé & Waters 2009).

There is increasing agreement on the principles of cultural safety and its aim to be a decolonising model which challenges racism and promotes recognition and action on power imbalances (CATSINaM nd). The key principles are summarised by Taylor and Guerin (2019) as:

- Health professional reflection on practice and worldviews
- True engagement with Aboriginal peoples to discuss their needs, beliefs and preferred practices/strategies
- Health professionals reflect on and seek to minimise power differentials between themselves and Aboriginal peoples and how these differentials may inform their interactions and practice with Aboriginal peoples
- Acknowledge the role of history in health outcomes and the social position of Aboriginal peoples to decolonise practice
- Health professionals ensure that their actions do not diminish, demean or disempower others

A basic principle of cultural safety is that health and healthcare is influenced by historical, economic and social contexts (Gerlach 2012) and not by cultural practices (Smye & Browne 2002). As opposed to the other frameworks proposing the facilitation of culturally appropriate care, the concept of cultural safety relies on a constructionist view of culture as dynamic and the product of social constructions (Blanchet Garneau & Pepin 2015). This means that as an individual's and community's practices and values change over time in response to local social and historical factors, unique characteristics are created (Downing & Kowal 2011). The role of individual agency in choosing how to act is also recognised and it is acknowledged that people may choose not to ascribe to cultural attributes (Williamson & Harrison 2010). By extending the concept of culture beyond race and ethnicity to incorporate aspects such as gender and social position (Ramsden 2002), the focus on individual behaviours and beliefs is removed and instead directed to the influence of historical practices, in particular colonisation, and the social determinants of health as contributors to health outcomes (Smye, Josewski & Kendall 2010; Williamson & Harrison 2010). As I highlighted in the glossary, I used this concept of culture throughout this thesis.

4.5.2.2 Application of cultural safety

As discussed above, in order to explore the power inequities underpinning healthcare, health professionals are required to analyse the impact of their own personal and organisational cultures on healthcare delivery (Gerlach 2012; Spence 2003). The inability of training alone to support health professionals in these processes has been acknowledged (Montenery et al. 2013; Oikarainen et al. 2019), however some authors do promote ongoing professional development (Oikarainen et al. 2019) as a means to enact cultural safety and a social justice teaching curriculum has been recommended by Browne et al. (2009). This incorporates learning focused on critical theory, cultural safety, equity, social justice and critical consciousness.

As alternatives to training, ongoing cultural mentorship (Heke, Wilson & Came 2018), critical reflection and reflexive practice (Wilson 2014), have been recommended as appropriate approaches to facilitating culturally safe practice. Through ongoing critical reflection, health professionals are encouraged to understand the practices and structures that have been used to ignore and oppress Aboriginal cultures (Downing & Kowal 2011) and to reflect on their own culture and identity and how this informs their position of power and practice (Papps & Ramsden 1996). This critical consciousness reduces the likelihood that health professionals will impose their values and beliefs on their clients and places the focus on the health professional as the agent for change (Wilson 2014). However, as the process involves the health professional minimising power differentials between themselves and their clients, the achievement of culturally safe care can only be determined by the Aboriginal client (Taylor & Guerin 2019; Williamson & Harrison 2010).

Cultural safety is generally located within the context of cross-cultural relationships between non-Indigenous health professionals and Indigenous clients (Brascoupé & Waters 2009). It aims for the development of a ‘negotiated and equal partnership’ between involved parties, which is dependent on the establishment and maintenance of trust, respect, honesty and empathy (Brascoupé & Waters 2009; Ramsden 2000). Taking the time to develop trusting relationships allows health professionals to co-construct knowledge of the individual context and create shared knowledge and meanings (Aronowitz et al. 2015). The role of the health professional in this partnership is to enable clients to determine and voice how the service can be adapted to meet their needs, negotiate a bicultural approach to information sharing and care provision (Ramsden 2000) and to engage in actions that extend beyond biomedical models of treatment to address the social determinants of health (Smye, Josewski & Kendall 2010). It is therefore not the role of the health professional to dictate what actions the client should make (Brascoupé & Waters 2009).

Cultural safety seeks to reflect not only on individual health professional's interactions with Aboriginal peoples, but how the health system and broader social systems shape the practices of both the health professional and the Aboriginal client (Downing & Kowal 2011), determine service provision and staffing (Fredericks 2008a) and enact systemic discrimination (Brascoupé & Waters 2009). Unfortunately, the current literature on cultural safety is limited predominantly to discussions at the individual health professional level and has rarely extended to an institutional level, let alone to other settings such as education and employment that also impact on health (Brascoupé & Waters 2009; Freeman et al. 2014). As such, a number of authors have called for the extension of cultural safety to an organisational level (Heke, Wilson & Came 2018; Laverty, McDermott & Calma 2017; Oikarainen et al. 2019).

The NT DoH cultural security framework does extend cultural security to a whole of organisation approach with governance and accountability from leadership to implement and evaluate cultural security activities, support and upskill the workforce and to engage and effectively communicate with Aboriginal consumers, thereby aiming to enable access to culturally safe health services for Aboriginal people (Northern Territory Government 2016b). The framework provides organisational support for health professionals to undertake workforce development activities to promote culturally safe and responsive practice amongst staff, promotes effective and respectful communication and the engagement of active partnerships with Aboriginal consumers. However, it does not state how this will be achieved.

4.6 Nutrition activities of health professionals working in Aboriginal health

Knowledge of the nutrition related activities of health professionals is important to determine if activities are addressing the nutrition concerns contributing to health inequities and to reveal characteristics of activities that enable access and enhance effectiveness.

There are large gaps in knowledge of the nutrition activities of health professionals, in particular for activities that target families with children progressing through the weaning period. Research and grey literature tend to report on specific nutrition interventions, as opposed to activities undertaken as part of daily work. Further, whilst there has been an increasing number of nutrition interventions aimed at improving early childhood nutrition outcomes, few have been conducted with Aboriginal families (Herceg 2005) and learnings from programs conducted in the general community do not necessarily translate into culturally appropriate programs or lead to positive outcomes in Aboriginal communities (Herceg 2005; Lee & Ride 2018b). The research I present in this thesis assists in creating further knowledge of early childhood nutrition activities, which has been called for by a number of authors (Herceg 2005; Jongen et al. 2014; Lee & Ride 2018b). The presentation of these activities from the view of the health professional is important in determining factors that influence the provision of activities and interactions with caregivers.

The nutrition interventions dominating the current literature for remote Aboriginal communities occurs at the level of the community store and includes a range of strategies such as developing store policies, preferential pricing for healthier foods and addressing store layouts and marketing (Black et al. 2012; Brimblecombe et al. 2017; Brimblecombe, Ferguson, Liberato, Ball, et al. 2013; Capewell & Lloyd-Williams 2017; Hillier-Brown et al. 2017; Lee et al. 2016; Lee, Smith & Bryce 1995; Rowley et al. 2000). These activities generally aim to reduce intake of sweetened beverages and increase intakes of fruits and vegetables (Lee & Ride 2018b). Other documented interventions include school policies and meal provision (Coyne, Dowling & Condon-Paoloni 1980; Warchivker 2003), community gardens and food subsidies or supplements (Acquino et al. 2013; Black et al. 2013). Further research into feasible and successful strategies and formal evaluation of current programs is strongly recommended (Gwynn et al. 2019).

4.6.1.1 Nutrition Education

Reviews of nutrition initiatives in remote communities indicate that most interventions targeted towards young Aboriginal children and their families are based on the provision of education and advice (Jongen et al. 2014). Health education is a key component of primary healthcare (World Health Organization 1978) and has been reported as a successful component of nutrition interventions across a variety of population groups (Contento 2008), including Australian Aboriginal peoples (Gwynn et al. 2019; McDonald et al. 2008; Rowley et al. 2000; Schembri et al. 2016; Tyrell et al. 2003). Nutrition education outlining the appropriate introduction of complementary foods and promotion of breastfeeding was identified as one of the ‘best buys’ to improve Aboriginal nutrition by Lee et al. (2009); and the need to provide education on infant and young child feeding practices to caregivers has been extensively highlighted in research (Alles et al. 2013; Fadare et al. 2019; Peters et al. 2013; Picciano et al. 2000; Yabancı, Kısaç & Karakuş 2014), including by the World Health Organization (Daelmans et al. 2009).

Nutrition education is provided by a range of health professionals (Foley 2010). It is predominantly offered as individualised advice (Foley 2010; Hawkes 2013; Sassi et al. 2009), however health professionals have been criticised for lacking understanding of the complexities of family situations, food preferences and skills, and of offering inadequate guidance to facilitate its implementation (Foley 2010). As such, many nutrition education activities ignore the historical, social and cultural influences on diet (Gerlach et al. 2014), which leads to one-sided knowledge transmission based on the values, beliefs, norms and practices of the educator (Setiloane 2016). This results in victim blaming and contributes to a loss of agency of the caregiver to enact change (Foley 2010). Australian (Abbott et al. 2012; Foley 2010; McDonald et al. 2008; Schembri et al. 2016; Worsley 2002) and international authors (Contento 2008), have noted that nutrition education alone is inadequate to enable behaviour change and argue that nutrition education needs to address the broader determinants of eating behaviours, food preferences, sensory pleasing factors, beliefs, values, attitudes and social and cultural norms (Contento 2008).

4.6.1.2 Characteristics of effective nutrition interventions

A number of studies, undertaken with a diversity of Aboriginal peoples, mainly adults, do document success, from a biomedical viewpoint, in reducing biochemical risk factors and/or improving dietary behaviours. These have been summarised by review papers (Black 2007; Browne et al. 2018; Gwynn et al. 2019; Lee & Ride 2018b) and offer some guidance on considerations for 'effective' (as deemed by the health professional/researcher) interventions, which I summarised in Figure 4.4.

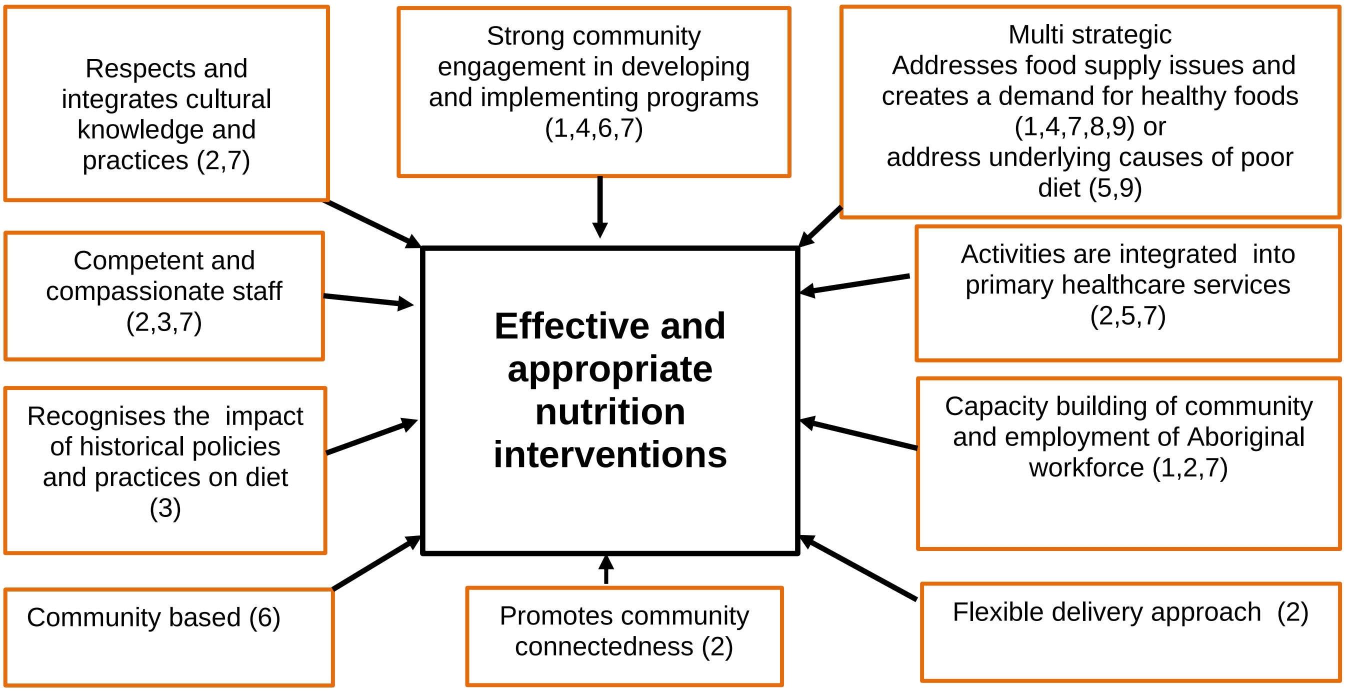


Figure 4.4 Essential attributes of nutrition interventions

References for Figure 4.4: (1) (Lee & Ride 2018b) (2) (McCalman et al. 2017)
(3) (Nilson et al. 2015) (4) (Gwynn et al. 2019) (5) (McDonald et al. 2008)
(6) (Jongen et al. 2014) (7) (Browne et al. 2018) (8) (Black 2007) (9) (Lee et al. 2009)

The cultural appropriateness of nutrition interventions has been described as paramount (Browne et al. 2018; McCalman et al. 2017; Schembri et al. 2016) and several studies have attributed their success to strong collaborative partnerships with the community and the incorporation of cultural practices (Karanja et al. 2010; Lowell et al. 2015; Murphy & Best 2012; Walkup et al. 2009; Wright et al. 1997). Similarly, the cultural safety of staff, who are empathetic and recognise the social, political and historical determinants of eating behaviours is essential in effective nutrition interventions (Nilson et al. 2015).

The importance of collaboration with the community and the centring of cultural knowledge and values is evident in the highly regarded Strong Women, Strong Babies, Strong Culture (SWSBSC) program and these key attributes were identified as essential enablers of program successes in improving birth weights of infants (Lowell et al. 2015). The program was conducted in the NT and parts of Western Australia and Queensland (Northern Territory Government 2009). It was developed in consultation with Aboriginal women and employed local CBWs to work in partnership with health staff to support young women in pregnancy and parenthood through bicultural strategies, including the sharing of cultural knowledge and practices (d'Espaignet et al. 2003; Lowell et al. 2015; Northern Territory Government 2009). Whilst the program was initially successful in its aims (d'Espaignet et al. 2003), later studies indicated a loss of effectiveness which was attributed to its inconsistent application in subsequent communities, where a lack of support and acknowledgement for the community workers roles by non-Aboriginal health professionals led to a shift in emphasis away from cultural knowledge and towards mainstream health knowledge and practices (Lowell et al. 2015).

Lowell's (2015) review of the program highlights that the development and sustaining of similar programs is reliant on effective governance, organisational support and health staff who recognise and respect cultural knowledge, strengths and practices and are able to work in collaborative partnerships with the local community. The lack of understanding or appreciation for Aboriginal knowledge and values by non-Aboriginal health professionals has also been reported by other reviews of health and parenting programs, with a lack of impact of numerous programs attributed to the basing of interventions on Western concepts and models, with inadequate adaptation to Aboriginal cultural practices (Burchill et al. 2006; Kruske et al. 2012).

4.7 Chapter summary

In this chapter I described the context in which this study is conducted and highlighted the importance of undertaking research in the remote setting of the NT, given that unlike other states in Australia, the majority of the Aboriginal population live in small remote communities that are serviced by small, often government run, health clinics. Whilst ACCHOs are cited as more likely to provide accessible and culturally safe healthcare, it is the responsibility of government operated services to meet this standard and to optimise provision of accessible and effective, culturally safe healthcare.

In setting the context of this research, I described the suite of policies and frameworks that direct the activities of health professionals and health service provision in the NT. These are currently guided by a primary healthcare approach and a cultural security framework is applied to ensure access to culturally appropriate services that are free from discrimination. As the main program informing health and nutrition service provision to caregivers of young children in the NT I described the Healthy Under 5 Kids program and its recommendations for health screening, anticipatory guidance, multi-disciplinary and cross-sectorial collaboration and consideration of the social determinants of health. I discussed that this program aims to extend beyond acute models of care and is integrated into other health promotion activities outlined in the NT Nutrition and Physical Activity strategic plan.

Whilst primary healthcare has been posited as the preferred approach to enhance health service access and effectiveness for Aboriginal peoples; in practice health service provision may be dominated by acute care and individual strategies that aim to address health behaviours. There is minimal knowledge of the nutrition activities undertaken by health professionals in their daily practice, however research indicates that these may also be dominated by individual approaches to care and nutrition education.

Literature documents a number of barriers to healthcare access for Aboriginal peoples, from the perspective of both Aboriginal peoples and health professionals. These barriers indicate that miscommunication and experiences of racism are common and have lasting effects not just on health service access but on intergenerational trauma. Identified enablers to accessible health services and effective health interventions reinforce the need for culturally safe approaches that engage the community in decision making and centre Aboriginal knowledge and values, these are important considerations when assessing whether the activities of health professionals meet the needs of Aboriginal caregivers. A number of cultural frameworks have been proposed to enable access to culturally appropriate health care and reduce structural violence. In particular cultural safety is proposed as a decolonising approach that moves beyond more commonly applied cultural awareness to challenge racism by exploring and acting on historically and socially informed power imbalances through self-reflection at the health professional and ideally health service level.

5 THEORETICAL UNDERPINNINGS OF NUTRITION

In this chapter, I discuss the importance of the application of theory to practice and argue that the health professional's choice of theory is paramount in determining how and what activities are undertaken with caregivers and what knowledge is prioritised and shared (Farre & Rapley 2017).

Whilst public health and nutrition originated from the social sciences, they have transitioned towards a scientific, biomedical model of health. The dominance of a scientific approach to nutrition has led to the common use of behavioural and cognitive theories to inform nutrition interventions and education (Golden & Earp 2012; Munro et al. 2007; Murimi et al. 2018). As illustrated by Figure 5.1, in this chapter I review the strengths and limitations of these theories and critique alternative theories that align with the appeals of a number of authors to return to a more holistic and social view of nutrition that better aligns with the Aboriginal concepts of wellbeing that I discussed in Chapter 2. Application of critical theories could better support health professionals to understand the importance of the context and determinants of health outcomes and behaviours and thereby better meet the needs of Aboriginal caregivers. My review of these theories during the research process allowed me to extend my own understanding of the influence of my worldviews and experiences on my interactions with caregivers as a Dietitian and to adapt my approach to research and practice. My critique of theories in this chapter forms the basis of my argument for the theories that I applied and the approach that I have taken to this research which I describe in Chapter 6.

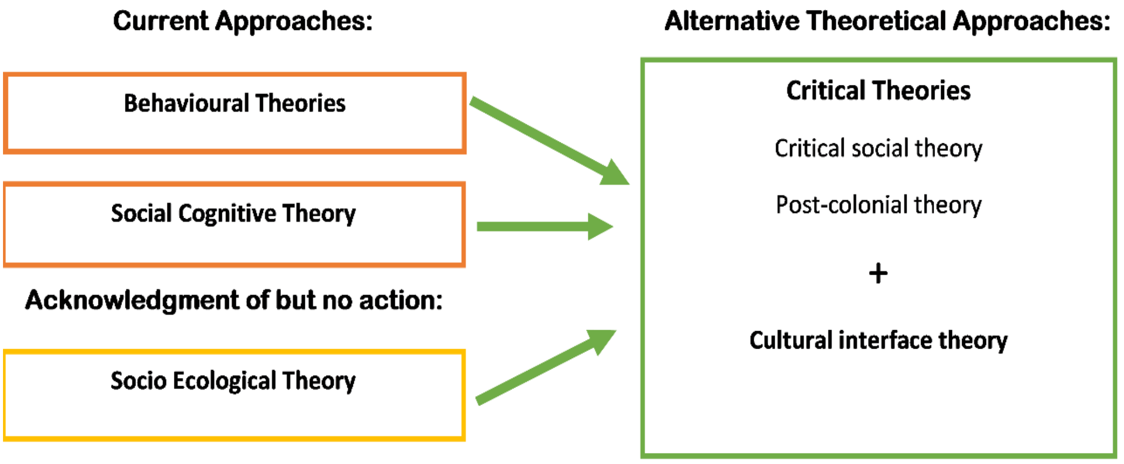


Figure 5.1 Review of existing and proposed theoretical approaches to nutrition

5.1 The importance of theory

The relationship between theory and practice is an issue of debate in nutrition education and health promotion (Buchanan 2004), with many health professionals unaware of the influence of theoretical underpinnings in their daily practice (McQueen 2007). The choice of theory by researchers and health professionals is influenced by the health professional's ontological and epistemological stance, their identity, worldviews and personal assumptions. As such, it implies a way of understanding health, behaviour and the world (McPhail-Bell 2016; Muller 2010; Nakata 2007a). Theory determines how and what knowledge is collected, analysed, interpreted and used (Achterberg & Miller 2004; Alderson 1998; Haynes et al. 2014), the importance of the determinants and context of health practices (Labisch 1998) and the role of the health professional and client in decision making (Farre & Rapley 2017). Frequently, interventions are designed without reference to theory (DeBarr 2004; Jones & Donovan 2004), however their use may be subconscious (Alderson 1998), resulting in researchers and health professionals applying underlying epistemologies, that are not recognised or fully understood (McQueen 2007).

While the use of theory is reported by various researchers to enhance the effectiveness of interventions aiming to improve health behaviours (Contento 2008; Davis et al. 2014; Hooft van Huysduynen, Hiddink & van Woerkum 2012; Murimi et al. 2018; Nutbeam 2010), some authors have argued that studies that are not informed by theories are just as effective as those citing theories (DeBarr 2004; Murimi et al. 2018). It is argued however, that without reference to theory, health interventions risk becoming ad hoc, inequitable and ineffective as health professionals have a limited comprehension of the factors most likely to influence outcomes (Haynes et al. 2014). Similarly, application of inappropriate theories can bias or blind researchers and limit the scope of investigation or intervention (Kelley 2011).

The choice of theory can also act to oppress and marginalise clients, as the power of the decision on what information is necessary to inform assessment and the correct course of action is placed with the health professional (Priest et al. 2012). Alternatively, a theory may invite the voice of the caregiver in describing the social conditions that inform the development of disease (Labisch 1998). The widespread, but unrecognised, miscommunication between health professionals and Aboriginal clients, described in section 4.4.3, is reportedly created through the dominance of biomedical knowledge and exclusion of the context and determinants of health behaviours (Cass et al. 2002). This approach may have its roots in the subconscious application of theories that support an individualised, medicalised approach to healthcare and thereby privilege the voice and knowledge of the health professional.

5.2 The history of primary healthcare and nutrition

5.2.1 The cycle of biomedical and social approaches to health

The history of public health policy is marked by two opposing approaches to healthcare delivery; biomedical models that focus on individualised and behavioural models of disease treatment, and social approaches that aim to address the underlying socio-historical-environmental determinants to promote health and address health inequities (Baum & Fisher 2014). The tensions from these divergent approaches continue to influence healthcare provision, with macro level policies advocating for social and primary healthcare approaches to health, but practice reflecting individual, behavioural models of care, known as lifestyle drift, as I discussed in section 4.4.2. Given this tension, knowledge of the history of public health and nutrition is vital in understanding the current models used in the training of health professionals and the approaches used by health professionals in practice.

Medical and scientific understandings of health have existed for centuries, as scientific knowledge of anatomy and physiology were applied to diagnose and treat disease (Farre & Rapley 2017). There was increased recognition of the social determinants of health when the impacts of social risk and living conditions on the spread of infectious disease were acknowledged in the public health movement (Labisch 1998). These social understandings of health, were later promoted through progressive social action and resulted in the development of primary healthcare frameworks by the World Health Organization, initially the Alma Ata Declaration in 1978 and later the Ottawa Charter in 1986 (Baum et al. 2016; Labisch 1998). As I discussed in section 4.3, these frameworks emphasise a health promotion approach with services aligned to local needs in order to support action on the underlying determinants of health (Baum et al. 2016). They currently underpin health service delivery in the NT and are therefore relevant to the context of this study.

Despite awareness of the importance of the socio-political context in determining health and the advocacy for primary healthcare approaches, the majority of health professionals after the mid-19th century were persuaded- through the emergence of new laboratory techniques such as pasteurisation, and medical innovations- that Western science and biomedical, positivist understandings of empirical truth, validity and rationality were superior to social models. This led to the dominance of biomedical approaches to healthcare in literature and practice (Löwy 2011). Biomedical understandings of health assume that disease is caused by a deviation from biological norms, hence the attributing of disease to social factors is minimised and the focus of attention is placed on the individual (Farre & Rapley 2017). This reinforces the power and expertise of the health professional, which is deemed critical in the provision of care as the knowledge of the health professional is required to diagnose and determine appropriate treatments for the biological issue of concern (Labisch 1998). The co-occurrence of these biomedical discourses with neoliberalism, discussed in section 4.4.2, has led to lifestyle drift as health service funding and structures further drive acute and behavioural models of care despite the presence of policies promoting a more social approach to healthcare (Baum et al. 2016).

5.2.2 The history of nutrition

Foundationary public health nutrition activities are reported from the 1800s, when state and voluntary health organisations undertook investigations into food and water safety and established school milk and lunch programs that aimed to reduce morbidity and mortality rates through supplementing the food of the poor. These types of activities increased during wartime food shortages, as scientific advances such as nutrient fortification were introduced and as more mothers entered the workforce and policies to regulate the foods provided in childcare centres were required (Egan 1994).

The earliest dietitians were predominantly home economists who provided nutritious meals to patients in hospitals in response to long held knowledge, arguably from the time of ancient societies (Cannon 2005), of the positive influences of nourishment on healing. Nutrition roles were extended to dietetics, or the provision of dietary counselling and medical nutrition therapy for patients with special nutrition needs, during the 20th century (Cannon 2005; Judd 2003), and the American Dietetic Association was established in 1917 (Dietitians Australia 2020). In the UK, the first dietitians were nurses (Judd 2003) and role differentiation globally progressed during the 1950s-1970s. However, nutrition continues to be integrated into contemporary nursing practices (DiMaria-Ghalili et al. 2014).

A social perspective, deriving from home economics and public health, and based on an ecological approach to improving people’s lives (Travers 1997), was originally applied to nutrition. However, similar to the biomedical movement occurring generally in health, nutrition became more scientific as the field of Dietetics emerged and knowledge from biochemistry, physiology and epidemiology, valued as valid and objective, was increasingly used to guide quantitative approaches to nutrition research (Williams 2016). This led to the development of food composition tables (Williams 2016), dietary guidelines and recommendations (Travers 1997), which as discussed in section 3.3, guided research and practice towards ‘nutritionism’. These approaches focus on the physiological impacts of food consumption and ignore the context in which foods are obtained, prepared and consumed (Crotty 1993). It has directed the dominance of nutrition education activities that I illustrated in section 4.6.

Despite the medicalisation and individualism of health and nutrition, there has been a growing advocacy to move beyond ‘nutritionism’ and to recognise the complex and contextual nature of food and nutrition (Gingras & Brady 2019). The Critical Dietetics movement calls for the application of a number of lenses to view nutrition (Gingras & Brady 2019). It encourages researchers to apply new methodologies and methods that expand how nutrition professionals view the world, for example through the narrative and inquiry based approaches used by Fox and Gingras (2012) and Fox et al. (2017). The movement also supports the utilisation of a range of theories, such as critical social theory, applied by Brady and Gingras (2019), that support new understandings and the development of novel strategies. A number of other authors have also called for a redirected focus on social understandings and the application of social theories to nutrition (Amir 2011; Crotty 1998; Delormier, Frohlich & Potvin 2009; Travers 1997; Williams 2016), arguing that the application of social theories leads to an improved understanding of why nutrition behaviours occur and the context of eating. This adds to the effectiveness of nutrition interventions (Travers 1997; Williams 2016). In section 0, I critique social theories and their application to nutrition research and interventions.

5.3 Current theoretical approaches to nutrition

5.3.1 Behaviour change theories

The most common theories used in nutrition education and health promotion are behaviour change theories (DeBarr 2004; McPhail-Bell 2016; Munro et al. 2007). Most authors in these disciplines do not cite the theories underpinning their research but, of those that do, the trans-theoretical model, theories of planned behaviour and social cognitive theory are reported most frequently in the design and implementation of nutrition education initiatives (Golden & Earp 2012; Munro et al. 2007; Murimi et al. 2018).

Behaviour change and social cognitive theories aim to assist in the understanding of behavioural and cognitive predictors of human behaviour (attitudes, values, motives) and intent to change (Bunton, Murphy & Bennett 1991; LaMorte 2018; Lytle 2005). They focus on individual health behaviours as the main cause of ill-health and thereby dismiss, simplify or de-prioritise action on the social and environmental context, structures and determinants of health outcomes and behaviours (Davis et al. 2014; Glanz & Bishop 2010; Munro et al. 2007) which, as discussed in section 2.5, are the main factors informing health practices. The use of behavioural theories guides health professionals to apply nutrition education models of service delivery, as they aim to motivate clients to change their health behaviours through providing information on why and what changes need to occur (Brug, Oenema & Ferreira 2005). This approach privileges the knowledge and expertise of the health professional and limits knowledge seeking on the context of health behaviours, leading to marginalisation and victim blaming (Moffat 2010; Schroeder, Kulage & Lucero 2015). It also reduces the agency of clients by obscuring the factors that lead to social disadvantage (Gerlach, Browne & Suto 2018).

5.3.2 Socio-ecological theories

In recognition of the need to further explore the multi-dimensional influences on health outcomes and behaviours there has been an increasing application of socio-ecological theories to nutrition interventions. These models acknowledge the SDoH and that individual and intrapersonal factors are embedded within larger social, cultural, environmental and political systems that impact on health outcomes (Golden & Earp 2012; Sallis, Owen & Fisher 2008; Stokols 1996). Their application can, but is not consistently, extended to consider the dynamic interactions and interconnections between factors on individuals, thereby acknowledging that the same environmental conditions may impact differently on individual’s health (Contento 2008; Golden & Earp 2012; Stokols 1996).

Despite the call for, and a trend towards, greater use of socio-ecological theories and models in health promotion (Golden & Earp 2012; Koh et al. 2010; Marmot et al. 2008), Golden and Earp (2012) reported that fewer than 10% of the 157 articles that they reviewed identified using socio-ecological models as a basis for intervention, and those that did were more likely to describe activities and targets aiming to address beliefs, attitudes and intentions at the individual level. Application of socio-ecological theory to nutrition interventions is generally restricted to physical environment factors such as availability and pricing of foods in community stores and housing related factors, with minimal extension to other SDoH factors. The apparent dismissal of macro level and cultural determinants, such as history, racism, self-determination and the influence of power on health and social policies; has also been identified by other authors (Chik et al. 2015; Jayasinghe 2015). The omission of these factors is of significant concern as they have been described by Aboriginal peoples as the most important determinants of health (Cairney et al. 2017). They must be considered if the needs of Aboriginal peoples are to be met and health inequities appropriately addressed.

Application of socio-ecological theory in practice may be restricted by limited resources and the structure of health services which, as discussed in section 4.4.2, are directed to facilitate action on individualised behavioural models of care (Golden & Earp 2012; Stokols 1996). A lack of practitioner self-efficacy in applying socio-ecological models has also been reported and the theory has been criticised for its lack of specificity in guiding users in how to enact change, particularly when addressing issues external to health and political issues at the macro level (Glanz & Bishop 2010).

5.4 A new approach? Critical theories

Given its roots in social sciences and the current omissions in theoretical approaches to address the social determinants of health that are identified as of importance to Aboriginal peoples, which I highlighted in this literature review; primary healthcare and nutrition could look to sociology for guidance in appropriate theoretical foundations. Sociology has a strong history in highlighting the crucial role that culture and broader social factors such as social differentiation and inequity have on health (McQueen 2007). More recent studies in both health promotion (Carey et al. 2016; Holman & Borgstrom 2016; McPhail-Bell 2016; McQueen 2007) and nutrition (Amir 2011; Brady & Gingras 2019; Delormier 2010; Wilson 2011) have used sociologically informed theories, including critical theories, to understand health related determinants and practices.

5.4.1 A critique of power and privilege

Critical theories are more of a position of thought than a specific theory. They derived from the work of social theorists in the Institute of Social Research at the Marxist Frankfurt School in Germany (Bohman 2016) in response to the contribution of technical developments, based on positivist science, to the oppression of the working class (Campbell & Brunting 1991). Critical theory is a diverse and evolving concept that has been defined as a guide to critique societal structures and the resulting power and resource distribution imbalances related to domination (Bohman 2016). It recognises that social influences can act to reinforce the interests of dominant groups, thereby creating or exacerbating inequities through determining access to resources such as employment, education and healthcare and distribution of wealth (Mosqueda-Díaz et al. 2014; Oelke 2010). The use of these theories could therefore guide health professionals to focus more intently on the macro level and historical factors shaping health determinants and to increase awareness of the presence of activities and structures that contribute to racism, marginalisation and oppression.

Critical theories differ from traditional theories in that they not only aim to explain circumstances, they act to influence and transform these in order to emancipate and liberate people from domination and oppression. A critical theory must meet 3 criteria: it must be explanatory, practical and normative- it must explain what’s wrong, identify the actors to change it and provide clear goals for transformation (Bohman 2016). The over-riding goal of critical theory is to use knowledge to challenge oppressive values and dominant power structures in order to empower people, groups and communities, to take control of their own circumstances (Adams 1996; Roberts & Taylor 1999). As such, the application of critical theory to primary healthcare practice aligns with the social justice underpinnings of health promotion (McPhail-Bell 2016) and could assist health professionals to implement and support actions on the determinants of health that enhance the agency of Aboriginal peoples and their communities (Norman 2009; Tretheway, Taylor & O'Hara 2017).

5.4.2 Critical theories and critical reflection

Critical theories view power as a commodity which can be traded or transferred between people and groups (Tretheway, Taylor & O'Hara 2017). Therefore, critical reflection and reflexivity are key elements in the application of critical theory (Duchscher 2000), as users are required to identify and challenge sources and privileging of knowledge and the distribution of power (Duchscher 2000; Getty 2010). This is particularly the case during intercultural exchanges (Haynes et al. 2014) where systems, policies and practices may act to marginalise people from the non-dominant group (Durey & Thompson 2012). This reflection is also an integral component of cultural safety as discussed in section 4.5.2.

5.4.3 Critical social theory

While critical theory is often thought of narrowly as referring to the Frankfurt School and associated work by Horkheimer, Adorno, Neumann, Giddens and Habermas which was limited to explorations of power and class. Its application has since been blended with social psychology and cultural theories to allow its extension to the critique of other philosophical approaches that aim to address social and political issues such as feminism, critical race theory, and some forms of postcolonial criticism (Bohman 2016).

One such application of critical theory is critical social theory, which can be used to explore the interactions between dominant and minority groups in society, and how these are influenced by broader social, economic, cultural, historical and political environments that influence social position and access to resources and power (Connelly 2001; Oelke 2010; Schroeder, Kulage & Lucero 2015). The use of critical social theories in primary healthcare and nutrition would challenge the current positivist and interpretive practices that apply to biomedical and behaviour change models of health. It would also enhance the seeking of knowledge on context and individual responses to similar environments, as individual differences in behaviour and experiences are recognised as legitimate (Mosqueda-Díaz et al. 2014). The refinement of critical theoretical approaches to critical social theories is also relevant in addressing essentialist views of culture. Critical social theory not only explores the wider socio-political-historical determinants of health and power imbalances, in line with other critical theories, it also acknowledges the diversity of Aboriginal peoples and their lived experiences and acts to reduce generalisations and stereotyping of socio-cultural groups.

5.5 Postcolonial theory and decolonisation

As discussed in section 2.2, colonisation caused major disruption to traditional lifestyles and continues to exert significant impacts on Aboriginal society and health (Fredericks et al. 2012; Sherwood 2013); including reduced social position, decreased access to resources (Anderson 2004) and frequent exposure to racism and practices that act to marginalise and discriminate against Aboriginal peoples (Paradies 2016; Sherwood 2013). Decolonisation aims to shift Western dominance and problematic constructs of Aboriginal peoples through acknowledging that these ways of knowing have been historically and socially manufactured and built into institutional understandings (Sherwood 2009). Whilst an increased focus on the historical context of health and its determinants is important, and is addressed through the application of critical social theory, to enable change the dominance of Western portrayals of history, in both education and literature, needs to be challenged and greater efforts made to represent and respect Aboriginal experiences and stories of colonisation (Allen 2006; Smith 2012).

Postcolonial theory was developed by Western researchers as a critical theory to deconstruct colonialism and its effects on colonised peoples (Anderson et al. 2003; Kirkham 2002). Postcolonialism is not a historical marker (as in after colonisation), but is a lens with which to recognise and scrutinise the underpinning philosophies, historical events, political contexts and social prejudices, that occurred with colonisation and continue to shape health inequities and public perceptions and attitudes towards Aboriginal peoples (McPhail-Bell 2016; Van Herk, Smith & Andrew 2010). Through exploring marginalisation, disempowerment and racism, and the ways that they are used to protect the dominance and privilege of the colonising group (Getty 2010), postcolonial theory aims to destabilise the dominant Western discourses, promote the previously silenced voices of Aboriginal peoples and enhance respect for alternative knowledge and approaches (Gandhi 1998; McPhail-Bell 2016).

The use of postcolonialism by White researchers has been criticised by some Indigenous scholars as a strategy to maintain control over research with Indigenous peoples (Getty 2010; Henderson 2000; Smith 2000; Smith 2012). This is related to its reliance on Western ways of knowing, and lack of reflection on Indigenous ways of knowing and the Indigenous values of spirituality, family humility and sovereignty (Henderson 2000). Smith (2012), has therefore recommended that if the voices of the marginalised are to be truly empowered and action promoted, postcolonial approaches should move beyond simply describing the effects of colonisation and support and enable the self-determination of Indigenous peoples. This requires centring the worldviews and values of Aboriginal peoples and recognising their rights, autonomy and diversity (Chilisa 2012; Sjoberg & McDermott 2016; Smith 2012).

5.6 Cultural interface theory

Decolonisation is the responsibility of all Australians and requires personal, structural and social action (Laenui 2000; Muller 2014), from both Aboriginal and Torres Strait Islander and non-Indigenous peoples. Researchers such as Nakata (2007a) and Kearney et al. (2014) have argued that Aboriginal and Torres Strait Islander and Western ways of knowing are epistemologically incongruent, leading to different understandings and approaches to life and each other's ways of being and doing. These differences are currently perceived by health professionals as binary oppositions of cultural difference that are contributing to Othering and deficit views of Aboriginal peoples and practices which are related to the essentialist views of culture and marginalisation and disempowerment of Aboriginal peoples that I discussed in section 4.4.3.

5.6.1 The intercultural space

Whilst ACCHOs have been cited as a way in which to provide more culturally appropriate care, (see section 4.4.1), it is not the responsibility of Aboriginal peoples to have to adapt to dominant non-Aboriginal ways when dealing with government managed health services and the wider health system. Given the miscommunication, racism and structural violence that has been reported across the Australian health system (Durey 2010; Henry, Houston & Mooney 2004; Mellor 2003; Paradies et al. 2015), it should be the responsibility of all health services and health professionals to enact culturally safe care. Rather than relying on Aboriginal health workers as cultural brokers, Aboriginal health researchers have argued for approaches that create both-ways healthcare, draw on the knowledge of biomedicine and incorporate values, norms and practices from Aboriginal knowledge (Nakata 1997).

The aim for a both-ways approach led to the concept of the third or intercultural space, which derived from Yolngu (Aboriginal people from Arnhem Land Australia) peoples understandings of Ganma, the blending of two knowledge systems (Nirrurranydji et al 1989 and Watson et al 1989 in Willis et al. 2015), and alternatively from the ideas of Bhabha and notions of liminality, the illustrations on the edge of manuscripts (Willis et al. 2015). Similar concepts of an intercultural space have been reported from understandings of Indigenous cultures in New Zealand (the knowledge interface) (Durie 2004) and Canada (two-eyed seeing) (Bartlett, Marshall & Marshall 2012).

Although there is global resonance for the intercultural space amongst Indigenous peoples globally, the interpretation and application of each of these concepts is not well documented and remains inconsistent. It is generally agreed however that all recognise that there are distinct differences between Western and Indigenous knowledge and use multiple perspectives that support strength based approaches and weave different understandings together in ways that seek to avoid clashes of difference (Peltier 2018).

I selected cultural interface theory for this study because of its origins in Australian Aboriginal and Torres Strait Islander cultures. Differing slightly from other constructs, the cultural interface is perceived not merely as a merging of two cultural groups or a space in which knowledge is valued equally (Wright 2019), but as a hybrid space where people from the two distinct cultural groups meet (Willis et al. 2015). It extends understandings of the interface to include a space where the impacts of power and privilege on the sharing and use of knowledge are explored and where it is recognised that certain knowledge may be prioritised in response to context and situation.

5.6.2 A place of new knowledge and shared understandings

Martin Nakata (2010), a Torres Strait Islander man, extended the concept of the third space into cultural interface theory, which is linked to Indigenous standpoint theory, as part of his PhD studies (Nakata 1997). Nakata argues that the intercultural space is often seen from a binary viewpoint or intersection, which gives rise to cultural dissonance as each approach is contrasted with the norms of the dominant group and strategies are applied to assimilate the practices and beliefs of the minority group to align with that of the dominant group. He proposed that the interface should instead be conceptualised as a dynamic place where people from groups with different understandings (ontologically, politically, socially) and experiences meet to exchange knowledge (Nakata, 1997a). Nakata describes the cultural interface as a contentious space, full of contradictions, conflicts and contestation of meanings (Nakata 1997) as “people discard and take up different ways of understanding, being and acting in a complex and changing environment” (Nakata 2010 p208), in order to create shared understandings and approaches (Nakata 1997).

Nakata in McGloin (2009 p37) states that without an “understanding of all competing knowledge systems and an appreciation of the extent of marginalisation … it is impossible to embed Indigenous perspectives … in ways that are meaningful or productive”. Therefore, health professionals working at the cultural interface are required to reflect on and interrogate, not just the knowledge and actions of Aboriginal peoples, but also their own knowledge and how this has been applied in ways that may marginalise Aboriginal peoples. I have undertaken this process in Chapters 2 and 3 of the literature review in this thesis where I presented and critiqued biomedical knowledge and sought alternative knowledge and views that may align with the perspectives of Aboriginal caregivers. In this process I identified the dominance of biomedical knowledge and the actions that privilege biomedical understandings, as well as social processes of Othering that act to oppress the seeking and presentation of alternative knowledge.

The process of self-reflection, as I used in this thesis, has drawn on critical social theory and postcolonial theory to enhance understanding of, critique and ultimately reframe the ways in which history, social position, power, privilege and previous experience shapes ways of knowing and acting. As such, the cultural interface is a space where non-Aboriginal health professionals can become aware of their Whiteness and culture and how this influences their actions and interactions with others (Minniecon, Franks & Heffernan 2007). As discussed in section 4.2, Australian health professionals are predominantly white, middle class and university educated (Kowal & Paradies 2005), the cultural interface is therefore an important place to reflect on Whiteness, power and privilege. Hence, it is a space where health professionals can undertake the reflexivity necessary to enact the principles of cultural safety, summarised in section 4.5.2.

5.6.3 The cultural interface and decolonisation

The cultural interface also offers opportunities to act in a decolonising manner. As the seeking and understanding of new knowledge is given priority over what is already known, the cultural interface is potentially a place of ‘unlearning’ for health professionals (McGloin 2009) who can become more open to other ways of knowing and doing as they assess the degree of difference and issues created by their own knowledge and newly gained knowledge (Nakata 2010). Health professionals can then work with Aboriginal peoples to determine ways to bridge any differences, so that shared understandings, meanings and potentially novel solutions to issues of concern can be co-created (Nakata 1997, 2007a). This process changes the roles and dynamics of the health professional and Aboriginal person at the interface. To work effectively and to stimulate change, trusting relationships and open dialogues are required, tensions need to be addressed and mediation between knowledge systems and practices needs to occur (Kearney et al. 2014; Nakata 2007a). Power will have to shift away from the health professional as they, not just the Aboriginal person, take on the role of learner (Nakata 2007a).

As opposed to cultural safety approaches, which currently focus on the non-Aboriginal person undertaking a process of self-reflection, cultural interface theory guides two-ways approaches and engages Aboriginal peoples in this process as well. Aboriginal peoples are constantly negotiating between knowledge systems and despite power imbalances, are employing strategies to gain agency in intercultural communications, as evident by the withholding of information and refusal to attend appointments highlighted by Lowell et al. (2012), which I discussed in section 4.4.3. The cultural interface offers Aboriginal peoples a space where they can determine "what knowledge can be accepted, rejected, legitimised or marginalised, or what actions can be taken or not taken on both individual and collective levels" (Nakata 2007b p 323), rather than being positioned as passive recipients of the paternalistic provision of knowledge that may oppose their own epistemological frameworks (Nakata 2007b). It also provides Aboriginal peoples with an opportunity to draw health professionals to consider lived experiences and the context and determinants of health behaviours and outcomes, so that solutions that better meet their needs can be co-created.

5.7 Chapter summary

In this chapter I argued that theories, either consciously or subconsciously, guide health professionals' approaches to practice. The choice of theory is based on the health professional's understandings of knowledge, the validity of knowledge and how notions of health and disease are constructed. The application of theory to practice informs what knowledge is gathered and used in healthcare interactions, which can act to reinforce acute and individualised models of care, or guide knowledge seeking into the context and action on the socio-environmental determinants of health. The choice of theory also determines the perceived role of the caregiver and the value ascribed to their knowledge.

Despite social foundations, both primary healthcare and nutrition currently align with biomedical models of health that have contributed to the 'lifestyle drift' in primary healthcare that I described in section 4.4.1. This has led to the dominance of behaviour change and social cognitive theories in healthcare research and practices that aim to build knowledge, skills and motivation to facilitate behaviour change at an individual level. These theories place the health professional in a position of power and privilege Western knowledge, because expertise is required to translate scientific knowledge of health risks into health promoting messages.

These theories are widely criticised for their ignorance of the wider socio-historical-environmental factors that as discussed in section 2.5, determine health outcomes and behaviours.

There are a range of alternative theories that could address these concerns and better support health professionals to meet the needs of caregivers by promoting an understanding of and action on the context and determinants of health outcomes and behaviours. Critical social theory guides health professionals to consider not only the wider socio-political-historical environmental influence on health but to act on the unjust distribution of resources and power that create health inequities. This theory could be combined with postcolonial theory to contextualise the knowledge gaining processes and to deconstruct the impact of colonisation on social inequities. It would lead the implementer to consider and challenge the policies and structures that act to ensure the continued dominance and privilege of the colonising group and unsettle practices of racism and structural violence. These theories therefore align with the principles of cultural safety discussed in section 4.5.2.

Cultural interface theory is an approach that guides both-ways action to address health inequities and the current barriers to healthcare access. It supports the argument that I proposed in Chapter 4 that it is the responsibility of both non-Aboriginal health professionals and Aboriginal peoples to collaborate on actions that counteract the current deficit and problematic views of Aboriginal health and the dominance of Western knowledge, constructs and practices. The cultural interface offers a space for health professionals to utilise critical social theory and postcolonial theory to undertake reflexivity and to participate in cultural safety activities. It could therefore be used to address the gaps in knowledge and dominance of the Western lens applied to childhood nutrition highlighted in Chapter 3 and facilitate new approaches to accessible and effective healthcare summarised in Chapter 4. As a shared responsibility cultural interface theory engages Aboriginal peoples as active agents to direct what knowledge should be shared and how this and the contexts of daily life should be understood, so that shared meanings and solutions are created to address any arising concerns.

In undertaking this review of theories, I reflexively critiqued my own interactions with Aboriginal peoples at the cultural interface. Recognition of the limitations of biomedically informed theories and the privileging of Western knowledge led to my epistemological shift and resulting respect and quest for new knowledge and ways of doing. This reframed my planned approach to this research and led to the redesign of the research questions. I describe further in Chapter 6 how I applied this knowledge to practice and research, and how it has informed the methodology and theories that I applied to this research.

5.8 Summary of literature reviews

Through these literature reviews (Chapters 2-5), I provided information on the context in which this research is set and the policies and socio-historical-political environment which frames the practices of Aboriginal caregivers and non-Aboriginal health professionals. I also presented an argument for the importance of research in remote settings and targeted to the early years of life if the health inequities experienced by Aboriginal peoples and described in the health literature are to be addressed. In so doing, I highlighted the dominance of Western and medicalised knowledge in the current literature and drew attention to the lack of knowledge regarding the child feeding practices and dietary intakes of young Australian Aboriginal children, particularly from the viewpoint of Aboriginal caregivers. I critiqued the current theories dominating health and nutrition research and linked these to the privileging of Western knowledge in the literature. In response to this, I proposed alternative theories and approaches that forefront unconventional knowledge and act to disable the structures and systems that underpin inequitable access to power and resources that enable health, thereby empowering Aboriginal people to define and access health and nutrition services that meet their needs. In the following chapter I will discuss the application of this knowledge to this research.

In setting the context of this research, I described the Aboriginal peoples of Australia and the Northern Territory (NT) and the history of colonisation in Australia, which has led to and continues to influence health inequities. The high proportion of Aboriginal peoples living in remote areas of the NT provides rationale as to the setting of this research and I described health service provision in the NT and the policies and frameworks that guide the practices of the health professional participants of this study.

I summarised the ongoing social discourses and ideologies formed during colonisation to promote the supremacy and dominance of the colonising group and outlined how these continue to impact on Aboriginal peoples' social and economic position and access to resources and healthcare; and ongoing experiences of racism, discrimination and structural violence, at interpersonal, organisational and system levels (Lynch et al. 2000; Markwick et al. 2014; Paradies 2016). This critique has supported the claims of Osborne, Baum and Brown (2013), that colonisation is the 'overarching driver' of social, economic and health inequities, leading to a 'double burden' of determinants through its direct and indirect impacts on health, for example through intergenerational trauma. I described the additional determinants impacting on the health outcomes, behaviours and inequities of Aboriginal peoples in Australia from the perspective of a newly developed wellbeing framework (Cairney et al. 2017), which extends the original concept of the SDoH, that are well known to health professionals, and forefronts the determinants of culture, community and empowerment, which have been reported as most significant by Aboriginal peoples.

These alternative views of the determinants of health link to a holistic and multi-dimensional concept of health and wellbeing by Aboriginal people, which contrasts with dominant individual views of health most commonly documented in the literature. In this literature review I critiqued the theories that are most frequently applied to health and nutrition research and cited that the medicalised views of health, combined with neoliberal discourses of individualism act to promote acute and behavioural models of healthcare, despite the presence of policies that advocate for primary healthcare approaches and action on the SDoH (Baum 2007; Baum & Fisher 2014). I summarised the historical movement of health and nutrition towards scientific bio medicalised understandings and the impact of this on research and practices that prioritise knowledge and action on the physiological role of food on health, known as 'nutritionism' (Scrinis 2013) which further inhibits knowledge of the context and determinants of nutrition behaviours. I highlighted the action of this through the gaps in knowledge of child feeding practices and the determinants of children's diets.

This research explores nutritional practices during the period of early childhood. The origin of health inequities in the first 1000 days of life has led to an increase in research and policies that direct actions to promote health and development during this window of opportunity, including for Aboriginal children. I summarised the research that supports increased action during the first years of life, particularly during the period of weaning when children are not only at high risk of malnutrition due to rapid growth and development, they are also establishing food preferences and eating behaviours that have the potential to influence dietary quality across their entire lifetime (Birch 1999; Lioret et al. 2013). I have shown that whilst there has been increasing research into nutritional intakes during this period, this research has not represented Aboriginal children and families and has not explored the determinants of children's dietary intakes or caregiver's feeding practices.

Current knowledge of Aboriginal children's diets is usually extrapolated from the general community or is assumed to apply to all groups of peoples. I explored how essentialist views of culture combine with medicalised discourses to shape what information is presented in mainstream reports. Contrasting of differences between cultural groups and with dominant discourses and practices, contributes to deficit views and problematising of practices and health outcomes that differ to the dominant groups (Canales 2000). This is particularly evident in the literature surrounding child rearing practices and beliefs and may be related to the lack of research into Aboriginal caregiver feeding practices. The resultant Othering, attributed to essentialised views of culture, also supports the lack of representation of Aboriginal peoples voices and perspectives in the current literature; despite knowledge that dietary related practices vary between socio-cultural groups.

Finally, I explored the use of theories in healthcare research and practice. I critiqued the use of behavioural theories which are commonly applied to health and nutrition research and practice. I summarised how these theories contribute to the dominance of biomedical knowledge in the literature and act to privilege the knowledge used and types of interventions employed by health professionals. In response to the limitations of these theories, in analysing and responding to the wider influences on health; including colonisation and other socio-historical-political factors, I presented critical social theory, post colonial theory and cultural interface theory as approaches that promote exploration and action on power, privilege and social determinants of health and nutrition and that support the enablers to effective and culturally safe healthcare.

6 METHODOLOGY AND METHODS

I open this chapter with a description of the study community. The participation of the community in the conception, design and conduct of this research was an integral component of ensuring that the research met the needs of caregivers and the study community. I outline how I engaged with and involved community members throughout the research and the processes I took to build and maintain trusting relationships with participants. I describe how I applied the principles from the “Ethical conduct in research with Aboriginal and Torres Strait Islander peoples and communities: (NHMRC 2018) and those proposed by Jamieson et al. (2012) to ensure that the research was conducted in an appropriate manner.

I then use Michael Crotty’s (1998) framework of the research process, as displayed in Figure 6.1, to provide a description of the research elements used in the research. In the early stages of planning this research I shifted my ontological and epistemological view. This allowed me to implement a methodology that supported the research aims. I discuss this shift in paradigm and its benefits to the research and provide a summary of the theoretical models I chose to underpin the research (these theories and their rationale were detailed in Chapter 5). I describe how the methodology selected for this study supported my aims to explore and give voice to the experiences, perspectives and practices of Aboriginal caregivers whose voice is often marginalised, as well as the health professionals that work with these caregivers, within the context of their everyday lives. This methodology also supported an analysis of the interactions between non-Aboriginal health professionals and Aboriginal caregivers in understanding the factors shaping the sharing of knowledge and generation of solutions to child feeding concerns.

In the second part of this chapter I outline the study process and methods that I applied to collect data at each stage of the research. I also describe the study community and participants and how I managed and analysed the data.

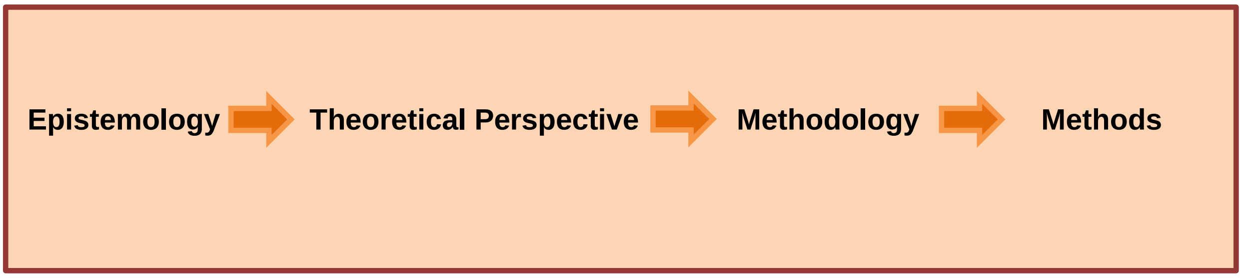


Figure 6.1 Four basic elements of the research process

(Crotty 1998)

6.1 The study community

I did not name the study community in this thesis at the request of the NT DoH. The community is located in the isolated Central Australian region of the NT of Australia, displayed by Figure 6.2. The main centre of Alice Springs, which is located approximately 1500km both north and south of the closest capital cities, is the community's closest major service centre and is located approximately 300km away by a combination of sealed and dirt roads. There are a number of small communities spread across the Central Australian region which are interspersed amongst pastoral properties and national parks.

Figure 6.2 The Central Australia region

Image obtained from mapsfordesign.com

The small communities in the Central Australian region vary from small homeland or outstation communities of a few homes, to larger towns of around 1000 people. Most people living in these communities are Aboriginal with a small number of non-Aboriginal people working in service-related jobs. The study community is home to around 250 people who reside in approximately 30 houses, mostly as family households, often extended family groups. Families from two main language groups live in the community and most family groups are related or linked through kinship structures. Similar to other small communities in the region, the community is serviced by one community operated store, a school offering education from preschool to year 12, a health clinic and a council office which operates a childcare, aged care, remote jobs for communities program (RJCP) and a night patrol program. I have summarised the demographics of the study community in Table 6.1 and discuss life in the study community further in section 7.1. I describe the health professionals working at the health clinic in the study community in section 8.1.

Table 6.1 Demographics of the study community

Descriptor	
SEIFA quintile	1 (most disadvantaged)
Aboriginal and Torres Strait Islander people	91.1% of population
Median age	27 years
Children aged 0-14 years	27.5% of population
Children aged 0-4 years	6.9% of population
English only spoken at home	4.1%
Family composition - couple without children - couple with children - one parent family - other	 26.9% 50% 23.1% 0%
Household composition - Family household - Single (lone person) household - Group household	 83.8% 16.2% 0%
Average number of people per household	6.2

(Australian Bureau of Statistics 2018)

The demographics above describe the study community as a young community, with children aged from 0-14 years comprising almost one third of the population. Most people in the community are Aboriginal and live in large family households.

Communities in Central Australia are diverse in history and culture. The term community became common in the 1970s, when assimilation policies were abolished, to describe Aboriginal settlements. Community was originally used by non-Aboriginal people as a shorthand concept to describe a group of people with shared cultural characteristics inhabiting a certain geographical area. It is frequently interchanged with concepts of culture which downplays the diversity of communities and the nuances of community in people's lives. This contributes to essentialist views of culture as stereotypes are applied (Dudgeon & Ugle 2014; Peters-Little 2000). For Aboriginal peoples concepts of community are primarily perceived as family and kinship connections, on both physical and psychological levels, as well as shared experience and history. The concept refers to connection to land, language or nation groups, irrespective of location as historical relocation, Stolen Generation practices and modern mobility have led to a variety of peoples from different language groups living in each community and frequent travel between communities (Dudgeon & Ugle 2014).

The history of resettlement onto missions, government reserves and station settlements has led to a variety of experiences for Aboriginal peoples in Central Australia. The study community was established as a station community on land which had relatively abundant water sources and plant life, compared to the surrounding desert areas. Hence it was attractive to the European settlers, who settled in the area to establish pastoral stations around 1870 (Young 1987). Whilst missions are reported to have offered some level of protection against violence but tightly constrained participation in cultural activities and enforced the adoption of Western ways and education, people living on station settlements were at the whim of station managers who controlled who could and could not live there, living conditions, access to rations, education, employment and lands (AIATSIS 2017).

Older people in the study community report that the original community was established near a ration/welfare depot on a nearby cattle station, however following significant conflict and acts of violence from settlers and government officials, families moved away from the region before returning to live on nearby pastoral properties in the late 1940s where a number of the men worked as stockmen. In the 1970s the pastoral property on which the current community is situated was returned to the Aboriginal community under a successful lands claim (Central Land Council 1990), however few men are currently employed to work on local stations.

6.2 Adherence to ethical research processes

6.2.1 Ethics approval

I obtained ethics approval for the study from the Central Australian Human Research Ethics Committee (HREC-16-389) and Flinders University Social and Behavioural Research Ethics Committee (OH-00116). I also gained consent from the NT DoH to conduct the research, interview NT DoH staff, engage the CBW in the research process and to review the medical and growth records of children whose caregivers had provided consent.

6.2.2 Ethical research considerations

There is a long history of unethical research conducted on Aboriginal peoples, which has not only failed to meet the needs of Aboriginal peoples (Kendall et al. 2011), but has contributed to misconceptions and negative stereotypes that continue to influence societal perceptions of Aboriginal peoples (AIATSIS & Lowitja Institute 2013). This has driven a need for specific ethical considerations for Aboriginal peoples, which strengthen the research competencies of Aboriginal communities (NHMRC 2018), seek to improve research relationships and outline the shared responsibilities required for meaningful research, that better represent the cultural views and meet the needs of Aboriginal peoples (AIATSIS & Lowitja Institute 2013).

As a non-Aboriginal researcher, it was vital that I planned and conducted research in a way that met these ethical guidelines and the needs and expectations of the study community. I used the “Ethical conduct in research with Aboriginal and Torres Strait Islander peoples and communities: Guidelines for researchers and stakeholders 2018” (NHMRC 2018), along with the 10 principles for relevant, effective and culturally respectful research with Aboriginal populations, developed by Jamieson et al. (2012) and extended these principles to include data sovereignty (Kukutai & Taylor 2016), engagement, impact, Aboriginal leadership and governance (Aboriginal Health and Medical Research Council of NSW 2020), to guide this research. I illustrate these guidelines in Figure 6.3 and Figure 6.4.

I discuss throughout this chapter how I applied these principles and values to my research. Below, I outline how I addressed the core values of ethical research with Aboriginal peoples. With recognition that each of the values and principles are of equal relevance and that there is significant overlap across the principles, I focus on the values of reciprocity, spirit, integrity and cultural continuity, which were integral to the conduct of this research and specifically shaped the findings and recommendations arising from this research.

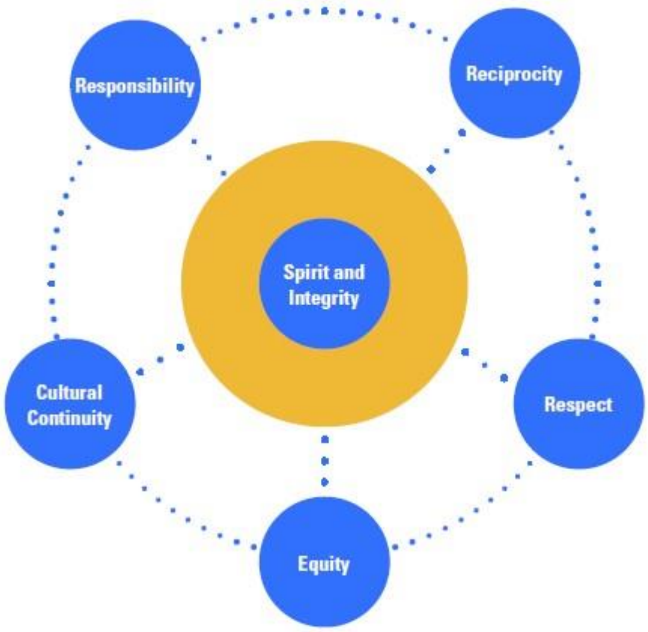


Figure 6.3 The six core values of ethical research with Aboriginal peoples

(National Health and Medical Research Council 2018) CC BY 3.0 AU

6.2.2.1 The core values of ethical research with Aboriginal peoples

Spirit and integrity were key considerations in the approach to this research and were demonstrated through community partnerships and the presentation of Aboriginal voices in describing child feeding practices. The term refers to respect for Aboriginal values and cultures and the generational binding of past, present and future. It is demonstrated through adherence and commitment to the other five values of ethical research illustrated in Figure 6.3. The National Health and Medical Research Council (2018) state that spirit and integrity are shown through the respectful seeking of knowledge and understandings that regard the beliefs and cultural heritage of participants. Cultural continuity is aligned with spirit and integrity and seeks to strengthen and preserve Aboriginal peoples’ culture and identity through recognition of the exploitative history of research, the importance of social collectiveness and by ensuring that researchers work in ways that do not diminish cultural distinctiveness.

Principles for relevant, effective and culturally respectful research with Aboriginal populations

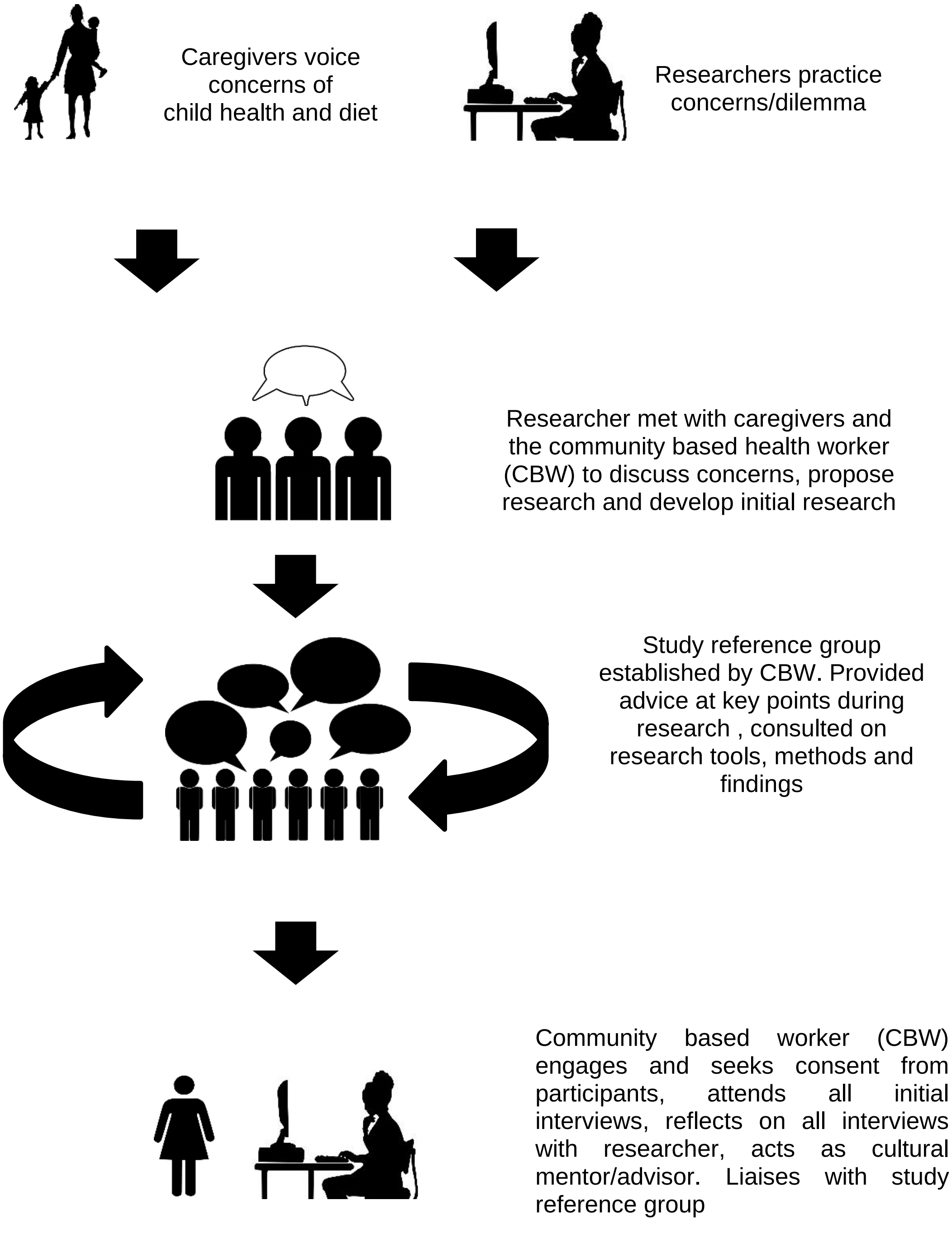
1. Co-design research with Aboriginal people to be responsive to a priority health issue as determined by the community and to supports community ownership of the research
2. Establish Aboriginal governance through structures that ensure appropriate engagement and oversight of the research through all stages of the research project. Prepare for Indigenous leadership turnover. Conduct research within a mutually respectful partnership framework that facilitates Aboriginal leadership. Develop systems to facilitate partnership management in multicentre studies
3. Ensure data sovereignty and the right of Aboriginal people to maintain, control, protect and develop their cultural heritage, knowledge, traditions and intellectual property
4. Integrate capacity building to enhance Aboriginal skills and knowledge as a key focus of the research partnership, with sufficient budget to support
5. Be flexible in study implementation, including timeframes, while maintaining scientific rigour
6. Appropriately renumerate Aboriginal people for their time and knowledge sharing
7. Respect communities’ past and present experience of research
8. Recognise the diversity of Indigenous Australian populations, adhere to local protocols and processes

Figure 6.4 Principles for ethical research with Aboriginal populations

(Aboriginal Health and Medical Research Council of NSW 2020; Jamieson et al. 2012; Kukutai & Taylor 2016)

I demonstrated these values in my research by seeking to give voice to Aboriginal caregivers’ experiences of child feeding and the determinants of feeding practices. I have not judged the practices and experiences of caregivers and have sought to develop a greater understanding of Aboriginal standpoints and the social and historical context of the practices of caregivers. I discuss further below how I engaged with the community in the study design and throughout the research process to ensure that the methodology and methods were culturally acceptable, ensured that the study aims met the needs of the study community and that the findings were true to the voice of the participants.

Literature indicates that a significant difference to Aboriginal health can only be achieved through the inclusion of Aboriginal voices and opinions in the research process (Sherwood & Edwards 2006). Partnerships with Aboriginal peoples are crucial when conducting research to ensure co-creation of knowledge that addresses the priorities of the community and to enhance the control of the community over the research processes and their findings (Arabena, Rowley & MacLean 2014; Jamieson et al. 2012). From the inception of my research I worked in partnership with the study community and have illustrated my collaboration with representatives from the study community in Figure 6.5.



Caregivers voice concerns of child health and diet

Researchers practice concerns/dilemma

Researcher met with caregivers and the community based health worker (CBW) to discuss concerns, propose research and develop initial research

Study reference group established by CBW. Provided advice at key points during research , consulted on research tools, methods and findings

Community based worker (CBW) engages and seeks consent from participants, attends all initial interviews, reflects on all interviews with researcher, acts as cultural mentor/advisor. Liaises with study reference group

Figure 6.5 Consultation with the study community

As I discussed in section 1.1, this research arose from concerns voiced by the community and my own experiences when working in the community as a Dietitian. On the commencement of my PhD I met with some of the caregivers who had voiced their concerns about their children's health and the CBW, employed at the health service, to explore these concerns in more detail and to propose the development of a research project. The CBW assisted in the development of a study reference group, comprising local women who as mothers and grandmothers had been designated as advocates for the community and provided advice on the study aims, research questions and approach, and provided a letter of support for the research. I also consulted with the community council regarding the approach to the study and sought their consent for the research.

Throughout the research process, I maintained contact with the study reference group, both directly at key times and indirectly on a more regular basis through the CBW, who was a member of this group and provided the group with updates on the research as it progressed. The reference group provided advice on who should participate in the study and reviewed the approach and emerging themes. During the data analysis, I met with the study reference group to discuss the findings and to seek their feedback on the results. The reference group assisted in the development of key messages to report back to the community and a lunch was held at the childcare centre with all community members invited, to share results and to seek feedback on future directions. We have arranged that I will meet again with the community on the completion of my PhD, to explore further the community's recommended strategies to optimise the health and nutrition of young children in the community and to disseminate findings in an accessible format.

At my request, the Central Australia DoH provided permission for the CBW to work with me during my research. As part of her paid employment, she took on a key role as my cultural mentor and research assistant for the duration of the study, undertaking the following roles:

- Provided advice on study aim and approach
- Identified suitable women to participate on the study reference group
- Provided regular feedback to the study reference group
- Identified caregivers of children from target age range, explained the study and gained informed consent from caregivers
- Assessed caregiver needs for participation in the study, offered interpreter services where required, assisted with translation where required
- Attended community focus groups to assist with facilitation
- Attended all initial interviews and subsequent interviews where assistance with rapport building and/or communication was required

- Participated in a debrief session with myself after interviews and focus groups to confirm interpretation of discussions
- Reviewed all discussion points and resources to ensure appropriateness for participants
- Provided cultural and contextual advice throughout the study
- Reviewed arising themes during data analysis
- Reviewed final themes and resources for community feedback session

My relationships and collaborations with the CBW and members of the study reference group were integral in constructing and analysing knowledge. These women brought an in-depth knowledge of the community context and were able to clarify, through prompting reflection on my observations or providing further supporting information, the knowledge that I gained from participants. My analysis of the knowledge that I gained was enhanced as the women in the community challenged my understandings and guided me to seek more knowledge or to observe or talk with other people, so that a holistic and appropriate understanding of knowledge was obtained and the community perspective was upheld. This reflective and collaborative process of knowledge building was continuous throughout the planning, data collection and analysis stages of the research.

6.2.2.2 Reciprocity

The establishment and strengthening of trusting relationships with caregiver participants was essential during the study. As I had previously worked in the community, I had developed relationships with the CBW and a number of community members, many of whom were relatives of the study participants, prior to the commencement of the study. This was of benefit as previous researchers have identified that Aboriginal communities often prefer to work with researchers with whom they have established rapport (Jamieson et al. 2012).

As part of the consent process the CBW explained my role and connection to the community and she accompanied me on the first few visits, and most subsequent visits, with each participant to assist in relationship building. At these initial contacts we did not undertake study related activities but took time to get to know each other. All visits were conducted at a venue selected by the participant to ensure that they felt comfortable and whilst initial visits were often held in a community space, later visits were usually conducted at the participant’s home.

An important contributor to the establishment and maintenance of relationships was reciprocity. I was aware of the importance of reciprocity from my previous work with Aboriginal peoples, but only through the extension of my relationships during this study did I realise and was able to enact true reciprocal actions. My reciprocal activities were based on the requests of the caregivers and the CBW, and included activities such as minding children while the caregivers were busy with another activity at the childcare centre or home, providing a lift to or from the shop, assisting with Centrelink enquiries, seeking appointments for financial support to replace household whitegoods, providing storage containers or warm clothes for the children in recognition for the time provided to the study, and providing advice on nutritional concerns. I also enacted reciprocity with the CBW through providing knowledge and skills on nutrition and research, inviting her joint participation in professional development activities and assisting her with work related queries. Reciprocity allowed me to build trusting, two-way relationships with caregivers, beyond those I had experienced while working as a health professional in the community.

6.3 Ontology and epistemology

Social research is based on the fundamental principles of ontology and epistemology (Jupp 2006). Ontology is the nature of being, and is defined by Patton (2002) as how we view the world, or the assumptions we make about the nature of reality. There is a diversity of ontologies in the modern world, however discernible patterns are described across groups of people with Western ontologies often framed as realities that are objective and defined by scientific understandings. Indigenous ontology is often contrasted to this and reported as based on cosmological understandings where there is an inter-connection of the body, land and ancestors (Chandler & Reid 2018; Kincheloe 2006). A binary analysis of these differences however conceals the complexities and variations in individual’s realities.

My understanding of reality is based on the presence of multiple realities, which are shaped by the experiences and environment of the individual, with reality therefore being a social construct (Maykut 1994). As such, I believe that the dietary intakes of young children need to be considered from the perspective of the daily lived experiences of their caregivers, and that these experiences are likely to vary based on factors such as the community and family context and the attitudes and values of the caregiver, hence influencing the strategies required to address any concerns of caregivers.

Epistemology is concerned with ways of knowing, it is a way of understanding how we know what we know (Crotty 1998). Epistemology is therefore interested in the nature of knowledge, how it is obtained and how and if it is validated (Gall 2007). It determines what knowledge is sought and how knowledge is prioritised. Hence Crotty (1998) argues that it is essential that researchers identify, explain and justify their epistemological stance; as this will influence how they approach, conduct, interpret and present their research.

During the planning of this research my outlook on reality and knowledge underwent a paradigm shift, which enabled me to adopt a more appropriate approach to the research, as I was able to incorporate theories that provided a more nuanced understanding of the issues underpinning the practices and interactions of caregivers and health professionals around child nutrition. This resulted in more meaningful results for research participants and provided opportunities for me to alter the factors shaping my own interactions at the cultural interface.

6.3.1 Initial stance: objectivism and positivism

My initial research question was to understand what child feeding practices were occurring in the study community. I sought one objective and measurable answer to this question and assumed that this knowledge could assist health professionals to alter their practices to meet the needs of the community. This approach shows my initial epistemological stance of objectivism, underpinned by a positivist theoretical perspective, in which I aimed for valid and reliable data that was universally applicable to all children in the community (Rigney 2001).

My original tendency towards a positivist stance was shaped by my life experiences and education, in particular my dietetic training, which strongly influenced how I obtained knowledge and what I regarded as valid knowledge. Positivist philosophies underpin science (Nicholls 2009a) and are the dominant approach in the health and medical fields that have aligned themselves to scientific approaches (Guba & Lincoln 2005; Wilson 2000), including nutrition (Gingras & Brady 2019; Schroeder, Kulage & Lucero 2015; Travers 1997) and health promotion (Buchanan 1998; Simpson & Freeman 2004). There has however been a movement towards the application of non-positivist stances across these disciplines (Gingras & Brady 2019; Morley 2019; Schroeder, Kulage & Lucero 2015; Schubert et al. 2012; Travers 1997; Wilson 2000). The declaration of the Critical Dietetics movement acknowledges the benefits derived from a positivist approach to nutrition but recognises that multiple lenses are needed to respect the multiple meanings of food, nutrition and health in life (Gingras & Brady 2019).

As I discussed in Chapter 5, biomedical views of health, in which disease is seen to result from cellular abnormalities and ‘poor’ health behaviours and the client is viewed as a passive recipient of medical treatment (Wade & Halligan 2004), are informed by positivism (Wilson 2000). Positivist approaches exclude views of health that do not align with dominant norms and tend to ignore the contexts in which health behaviours and outcomes occur (Kincheloe & Tobin 2009; Kirkham et al. 2007). They act to exclude the historical and political circumstances that determine health and health behaviours (Sherwood 2010) and promotes acute and educational models of healthcare (Wade & Halligan 2004). These approaches have been criticised in Aboriginal health for reducing the focus on context to stereotyped concepts of race and culture, problematising of socio-cultural differences in health behaviours and promoting dominant worldviews through the provision of activities that focus on individualised, acute care and health education (Alderson 1998; Sherwood 2010). Positivist approaches underpinned early research with Aboriginal peoples which contested Aboriginal sovereignty and created colonised identities of Aboriginality that were used to emphasise superiority of White people and their culture, contributing to the persistent deficit societal views of Aboriginal peoples (Sherwood 2010).

6.3.2 Altered stance: constructionism

Whilst I approached this research with a positivist stance, I was aware that there was likely to be more than one answer, that the experiences and circumstances of individual caregivers influenced their own feeding decisions and practices to form knowledge that was ‘valid’ in that situation, and that feeding practices could vary based on context. I was also highly aware of the limitations of the ‘validated’ tools generally used to assess dietary intakes and feeding practices; the unsuitability of these tools for people who were not of a Western educated background (Lee, Smith & Bryce 1995; Rohit et al. 2018) and the inability of these tools to explore the context of feeding and individual experience. Hence, I was open to new approaches and ways of knowing but lacked the knowledge and confidence in how to make this shift. I was concerned about the acceptance of alternative approaches by my profession. My concerns in this area are supported by comments from Etherington (2004) who identified that positivism can be difficult to challenge given its dominance in academia.

My turning point occurred on one of my first visits to the study community to discuss my research proposal. When I arrived at the clinic the staff were frustrated that the mothers never brought their children into the clinic for their health checks. They had a list of recall clients and had been out in the community to try to find the mothers and children, but no one had attended. They complained that the “mothers don’t feed them right anyway and they won’t give the medicine that we prescribe. If the child doesn't like it they don't have to take it, it's a cultural thing, the mothers can't upset the children" (reflective journal 17th October 2016). Later that day I saw one of the mothers who I knew well from my previous work in the community outside of the store. I told her that the clinic staff had been looking for her and she explained to me that her son had been diagnosed with anaemia again. She told me that the medicine prescribed by the clinic did not work, her son had taken it the month before and there had been no change on his test results. She described how the nurses told her she had to feed him more meat but she had no money and he wouldn't eat that food anyway, he was fussy and spat it out, even her mother could not get him to eat it. She pondered the reason to go back to the clinic when she would just be told the same thing again, she did not think he was sick (reflective journal 17th October 2016). I considered the mother's viewpoint and the information that she had been told in the clinic, the mother knew what she had been asked to do but this information did not help with the realities of feeding her child, it did not meet her needs. I recognised that the concerns that she had were common child feeding issues of many caregivers, it was not 'a cultural thing'. I questioned whether non-Aboriginal caregivers were blamed in a similar scenario or if other information was provided in different contexts and what factors shaped the information that was provided by health professionals.

My paradigm dilemmas led me to social constructionism and the view that knowledge, and therefore reality, is socially constructed and transmitted through the interactions of people and their world (Crotty 1998). The approach acknowledges the role of social and cultural experiences on the co-construction of meaning by groups of people and the influence of historical and political factors on these experiences (Burr 2003; Crotty 1998). Social constructionism purports that a practice cannot be understood in isolation from the person experiencing it and that there is no one 'true' or 'valid' interpretation of meaning (Crotty 1998; Denzin 2008).

6.4 Linking constructionism, critical and postcolonial theories

Through the application of a social constructionist epistemology, I was able to explore the experiences and views of both Aboriginal caregivers and non-Aboriginal health professionals and to co-construct knowledge with each of these groups. A social constructionist approach acknowledges that many forms of knowledge exist and are relevant (Etherington 2004), however, I was aware that the continuing socio-historical influences of colonisation creates a privileging of the views and knowledge of the dominant non-Aboriginal population which is evident in the current literature. As such, I applied cultural interface theory which did not require or support a privileging of the knowledge and views of either group (Nakata 2007a) and which prompted my exploration of the impact of power and privilege in knowledge sharing between health professionals and caregivers and in my own interactions with research participants. This process acted to reduce researcher bias (Bainbridge, Whiteside & McCalman 2013).

I utilised critical social theory to understand the concepts of power and privilege and the systems and structures that support dominance. Given the significant influence of colonisation and the historical and contemporary socio-political context on health and nutrition outcomes and practices and the interactions between people from the colonised and colonising groups, I also applied postcolonial theory. These theories enabled my understanding of colonising factors and the creation of recommended actions that responded to and challenged these factors. My use of these theories is supported by the literature review I presented in Chapter 5.

6.5 Methodology

I considered a number of qualitative approaches for this study, including participatory action research. Given the lack of knowledge of the current practices and interactions between caregivers and health professionals, I selected a qualitative approach based on the methodologies of critical social research (Harvey 1990) and reflexivity (Etherington 2004). This allowed me to prioritise the determination of issues of importance to the community and the exploration of current practices and their determinants.

6.5.1 Critical social research

Critical approaches use deliberate and reflective processes to “dig beneath the surface of social life to uncover the assumptions and masks that keep us from a full and true understanding of how the world works” (Johnson 2000 p 67). Critical social research aims to analyse the historically shaped social relationships informing knowledge and meaning (Harvey 1990) and to rectify societal power imbalances in order to foster emancipation amongst marginalised groups (Saunders, West & Usher 2010).

My use of critical social research is informed by the work of Harvey (1990), who reports that this methodological approach creates a pathway in which the oppressive social structures based on classifications of class, race and gender can be critiqued. Whilst critical social research includes highly diverse methodologies, Harvey (1990) applies nine building blocks to the process which guide a dynamic and continuous process of deconstruction and reconstruction of the data, allowing the researcher to examine and understand the underlying factors that create the phenomena of interest. I illustrated these blocks in Figure 6.6 as cogs which highlight that each step is not observed as an individual component but act in a "totalistic" manner to inform the interactions between phenomena and their relationship to the social structure as a whole. In Table 6.2, I summarise the concepts of each building block and the processes I took to address these elements in my research.

Figure 6.6 The nine building blocks of critical social research

(Harvey 1990)

Table 6.2 Process of my research in addressing the building blocks of critical social research

Building Block of Critical Social Research	Components	How this informed my research
Abstraction	The development of abstract, generalised concepts	The research was prompted by generalised concerns raised by the community about the impact of children's diets on their future health. I commenced my research plan with a range of positivist assumptions that I had applied to my practice. These were based on biomedical models of health and nutrition and perceived norms of eating and caregiving.
Essence	Development of the concept to be explored	I met with the community to further explore their concerns I developed the concept to explore the practices of Aboriginal caregivers and non-Aboriginal health staff and the determinants of these practices
Totality	Individual concepts do not exist in isolation	The practices of caregivers and health staff are influenced by the interactions and knowledge of the two groups and the context in which the practices and interactions occur
Structure	Individual elements are inter-related and can only be assessed in terms of how they influence the complete structure	Historically and socially informed structures and policies shape the determinants and practices of both health professionals and caregivers
Praxis	Ideas and theory are applied to determine what is needed to alter oppressive structures	Critical social theory and postcolonial theory were applied to the analysis of data to assist in the identification of power and privilege at the cultural interface and the historical-socio-political context influencing determinants and practices Reflexive practice has allowed me to identify and respond to how these factors influence my own practice and research

Ideology	Identifying different ways of looking at things, some ideologies are dominant in society	I explored the ideologies of caregivers and health professionals with regards to child feeding I examined the privileging of health professionals' views and knowledge at the cultural interface and the structures that enable and promote this
History	The interpretation of history is based on available knowledge and needs to consider the wider social structures and context from which it is interpreted. Therefore, the interpretation may not be factual	I analysed the impact of history on health and nutrition and summarised this information in Chapter 2. A postcolonial theoretical approach was applied in recognition of the impact of history on contemporary practices of caregivers and health professionals. I acknowledge that my societal position and role as a health professional: researcher influenced my interpretation of history and its impacts
Deconstruction and Reconstruction	An ongoing process involving the constant reflection and analysis of data and movement between building blocks and phenomena	I undertook this process through reflexivity and the use of a reflective journal. A flexible approach allowed the co-creation of knowledge with participants and cultural and critical mentors. I used an iterative coding and recoding process and the use of mind maps to analyse data and to break down themes to explore underlying attributes

I worked through the building blocks described by Harvey (1990) by co-creating and then refining the initial abstract research question (essence) with members of the study community. I then undertook a cyclical process of deconstruction and reconstruction through successive meetings with the CBW, reference group and participants at which we checked that the research processes and arising data aligned with the essence of the research. At these meetings we also confirmed that differing perspectives were presented (ideology), the interactions between themes were explored (totality) and the structural and historical influences and factors influencing these (praxis) were unpacked. In instances where a component was not reflected in the emerging data, the CBW or reference group identified opportunities in which this information or perspective could be sought.

6.5.2 Reflexivity

Finlay (2002) describes reflexivity as the process of conscious self-awareness which involves the researcher questioning their own process of knowledge production and how this is influenced by their prior experiences, assumptions and beliefs; and then adapting their practices based on this awareness. Reflexivity requires the researcher to be attentive to the cultural, political and social origins of their perspective and open to the perspectives of others (Watt 2007). It is often cited for its importance in research transparency, rigour, credibility and validity (Koch & Harrington 1998; May & Perry 2014; Patton 2015), which is achieved by providing information about the context of the data (Etherington 2004). Its use has also been encouraged for its prompting of self-critique, creation of rich insight and for facilitating examination of the social and political constructs that inform the research (Finlay 2002; Marcus 1994). Importantly, in cross cultural research, reflexivity has been endorsed for its promotion of participatory approaches and collaboration in knowledge production, which can result in empowerment and action (Nicholls 2009b).

May and Perry (2014) highlight that reflexivity is not a method but is a way of thinking that is applied across the entire course of research, through an iterative process, to guide interpretation and representation of the data. They argue that researchers are required to apply reflexivity to determine how their own knowledge and actions have influenced the development of the research questions and the gathering, interpretation and presentation of the data, including what information has been ignored or acted on and how different points of view are acknowledged. Prospective reflexivity, or a description of the influence that the researcher has had on the research is often included in qualitative research, however retrospective reflexivity, an awareness of how the research has shaped the researcher, is often excluded (Attia & Edge 2017). I included both aspects of reflexivity in this thesis, with retrospective reflexivity evident through my alteration in epistemological stance and growth in understanding through my research journey.

6.5.2.1 Application of Reflexivity to the research

I used Attia and Edge's (2017) cyclical reflexivity process of action- critical reflection- action to each step of the research, including during interviews where I analysed the interactions between myself and the participant(s) and the influences on these before adapting where necessary. My reflexivity was guided through the use of a reflexive journal and regular discussions with my cultural and critical mentors.

Reflexivity enabled exploration of my own history, ideology and praxis (Harvey 1990). This process was initially confusing and sometimes confronting, as I sought to reflect on my childhood and twenty years of dietetic practice in order to explore how my experiences had shaped who I was, how I worked as a Dietitian, how I interacted with others and how my experiences had shaped my research approach. Once I gained confidence in the reflexive process, I was able to explore the historical and socio-political influences on my knowledge, actions and the structures in which I worked. I understood that I had a limited understanding of Aboriginal worldviews and that the knowledge I did have was skewed by a Western lens. I considered how this knowledge influenced my interactions with others, from the same and differing socio-cultural groups, and actively looked for areas that I needed more knowledge of or situations where I needed to adjust my position and style of engagement. Eventually, I developed the confidence to discuss my experiences with others, including the research participants, a process which further developed rapport and trust; and with my cultural and critical mentors as we deconstructed and reconstructed data to clarify thinking and to engage in deeper analysis of the data. Through the inclusion of reflexivity, I have been able to add my story to this thesis, as initiated in the introduction and woven throughout the writing, and as suggested by Etherington (2004), I invite the reader to reflect on how my story has influenced my opinions and analysis and the impact of this on the validity of the data.

Through reflexivity I understood that I needed to apply a combination of emic (from within the cultural group) and etic (outsider of the cultural group) perspectives to the research so that I could ensure an openness to the norms, views, knowledge and experiences of both Aboriginal caregivers and non-Aboriginal health professionals (Werner & Schoepfle 1987), and to respectfully present the voices of each group, with an understanding of and control for my own biases. I found the reflexivity related to my learning of critical theories quite challenging as I became more aware of concepts of power and privilege and how my position of privilege had impacted on my practice. Using an etic approach, I reflected on my position as a member of the colonising group and how my social and professional position influenced my relationships and the sharing of knowledge with Aboriginal participants. I became aware of how I had entered into conversations with a pre-determined agenda, based on my own views of the situation, and how I guided interactions to ensure that this agenda was addressed. I began to recognise how I privileged my own knowledge by constructing solutions to issues that I deemed were of concern and thought that these were superior to other approaches. I began to recognise the importance of other knowledge that was outside of my perspective and etic approaches, built on trusting relationships that were open to and respectful of other ways of knowing and doing. Over time my interactions with participants changed and I worked to build and reaffirm trusting relationships. I delayed my agenda and became more flexible as I realised that stories would come in their own time. I promoted the voice of the participant rather than my own, as I employed active listening techniques and asked more questions. I learnt the importance of reciprocity and I discuss the importance of this aspect of the research in section 6.2.2.2.

As an insider with the health professionals, with whom I have worked with as a colleague and have a shared cultural background as a White, middle class, highly Western educated woman, I have applied an emic perspective. I recognised that my experiences working in the community as a health professional enabled me a level of commonality in my understanding and interpretation of the beliefs and experiences of this participant group. However, I was required to critically reflect on my interactions with the health professionals to ensure that I enabled them to tell their stories. As such, I worked hard to promote an approach that supported an openness to share their experiences and to explore the factors shaping their experiences. I became aware through reflexivity, that there were several instances in which participants did not share the same understandings, with each other, or with myself, and I had to analyse and critique my assumptions of a common language and approach. In this process I sought to ensure that I presented all views and experiences, including those that differed from my own.

Reflexivity on my approach also enhanced my awareness that I needed to continually confirm the representativeness of the knowledge that I had gained. I clarified the research findings both with my participants and my cultural mentor, so that I could understand the factors underlying this knowledge and to minimise any misrepresentation of what I had been told. I reviewed the study findings with the CBW and study reference group and met with the wider study community, including the caregivers, during the data analysis process to confirm my interpretation of the community and health professional findings. I have also discussed my findings with a number of health professional colleagues, including research participants. I am aware that despite this process, my own interpretations continue to shape my knowledge and the analysis of this knowledge. Therefore, I cannot, nor do I claim to, completely represent the voice of the participants. Through my research processes however, I aimed to represent all voices as accurately as possible and to represent participants’ voices in a respectful manner.

6.6 Methods

I conducted the study in three stages over a period of 22 months:

- Stage One- focus groups with community members
- Stage Two- in-depth interviews and photo-voice activities with primary caregivers
- Stage Three- interviews with health professionals

In addition, I undertook community-based observations of child feeding and the activities of health professionals in the community across all stages of the study.

In the following section, I describe the eligible participants, study participants, methods used and the processes used in the analysis and management of the data.

6.6.1 Eligible participants

The eligibility criteria for each stage of the study are summarised in Table 6.3. All community members over 18 years of age were eligible to participate in focus groups at Stage One of the study. At Stage Two of the study, the primary caregivers of children aged between 3 months to 3 years of age were invited to participate in the study. Given the importance of extended family in childrearing, as discussed in section 3.8 each identified child within the target age group may have had multiple primary caregivers. The study reference group identified that women were the main caregivers of children, hence men were invited to participate in a male focus group at Stage One of the study but were not identified as primary caregivers for Stage Two.

Health professionals who were at the time of the study or had previously been employed by Central Australia Health Services to provide services, including the provision of nutrition information, to caregivers with young children living in the study community were eligible to participate in the study. Short term and agency staff were excluded as the services provided by these staff are more likely to focus on acute care and there was no process to obtain contact details for these staff.

Table 6.3 Eligibility criteria for each stage of the study

Stage One	Stage Two	Stage Three
Focus groups	In-depth interviews Photo voice activities	Interviews
All community members aged over 18 years Separate groups for women and men planned	Primary caregiver of child aged 3 months-3 years Aboriginal Main residence in study community Aged over 18 years (Female)	Health professional currently employed or previously employed within 3 years of commencement of study to provide health service to the study community Service provision includes child health and nutrition services Service provided in community at least 4 times per year Non-Aboriginal
Exclusion criteria: People with cognitive impairment, intellectual disability, mental illness or health condition which impacts in their ability to provide full consent or participate fully in the study		

6.6.2 Recruitment and consent

As discussed above, the CBW identified and gained informed consent from all eligible community-based participants for the focus groups and caregiver interviews. The CBW explained the research to each participant, answered any questions and referred questions she was unable to answer to myself, before explaining the consent process and obtaining signed consent from all participants. I offered all community-based participants interpreter services, however all declined. The CBW assisted with communication at the focus group and interviews, however the need for this was minimal and was confined to translation of specific terms. All caregivers provided consent for images of their child to be used in the research and for my review of their medical and growth records. None of the community-based participants provided consent for voice recording, as such I took detailed notes during all interviews and reviewed these immediately after each interview to ensure accuracy of content. I also clarified these notes with participants and the CBW.

I identified eligible health professional participants and contacted each participant to invite their participation in the study, explain the research and to gain informed consent. I or the CBW, provided all participants with a plain English version of the participant information sheet and all participants signed a consent form, which I have attached in Appendices 1 and 2.

6.6.3 Data collection Stage One- community focus groups

Aboriginal health researchers have suggested a need for research methods that are flexible, utilise conversational styles of information gathering and are complemented by the use of graphics and images, rather than written questions (Nelson & Allison 2000; Perkins et al. 1995; Sayers 1993). I selected focus groups as the research method in Stage One of the research to gain descriptive information on wider community perceptions of child health, the factors influencing the health and nutrition of children, general information on child feeding practices and knowledge of recommended feeding practices as described by the Australian Infant Feeding Guidelines. This allowed me to modify the interview prompts that I used for interviews with caregivers and health professionals in Stages Two and Three so that they were based on community needs and priorities and ensured that a diversity in community views on child feeding were included in the findings.

To build on the discussions from focus group one, at focus group two I invited participants to develop posters to explain what they believed the recommended feeding practices were for young children. Attendees broke into four small groups and developed posters using images of young children (newborn baby, baby sitting, baby crawling and young child walking, in addition to images of children breastfeeding, being fed by a carer and self-feeding) and a variety of food images. I held discussions with participants during the creation of the posters so that I could clarify and seek further information on the portrayed recommendations.

6.6.3.1 Focus group participants

All women living in the community were invited to attend two focus groups held at the childcare centre in October and December 2016. Three women attended the first focus group and four women attended the second focus group, an additional three interviews were held with women who preferred a non-group setting, using the same discussion points as those used for the focus groups. All women participating in this stage of the research were aged between 19-40 years of age. One woman was a primary caregiver participant with a child aged under three years of age, all other women were the primary caregiver of a child aged over four years of age and were secondary caregivers to younger children in the community. All women had been employed at the childcare centre prior to or during the study period. A separate focus group was planned for men living in the community but was unable to be organised within the study period.

6.6.4 Data collection Stage Two- caregiver interviews and photovoice

6.6.4.1 Caregiver interviews

Critical social research applies collaborative and open listening approaches to data collection. This facilitates information sharing to maximise the voice and viewpoint of marginalised people, and provides the researcher with an opportunity to listen to the lived experiences of the participant (Parker, Fook & Pease 1999). Hierarchical methods of data collection that place the researcher in a position of power, such as questionnaires, are inappropriate for this style of research (Parker, Fook & Pease 1999). Instead, semi-structured interviews with open-ended questions, that are conducted in an informal manner, allowing flexibility and responsiveness, so that greater power is provided to the participant during the interaction have been identified as appropriate; and are reported to promote the capturing of meaningful data which is relevant to the lives of the participant and their families (Bainbridge, Whiteside & McCalman 2013; Sallee & Flood 2012; Shannon 1994).

I conducted a series of semi-structured interviews with primary caregivers between May 2017 and May 2018, to discuss the feeding practices they had previously and currently used for their child aged between 3 months and 3 years of age. I also explored whether these feeding practices were the preferred ones, the influences on feeding practices, nutritional information they had received and the sources of this information. Each caregiver participated in between 2 and 8 interviews which were between 30 minutes and 45 minutes in duration.

I developed interview prompts in consultation with the CBW and study reference group with consideration of the literature review, research aims and the findings from the focus groups. I based the discussion prompts relating to caregiver feeding practices and the feeding environment on modified questions from the Feeding Practices and Structures Questionnaire (Jansen et al. 2014) and the Children’s Eating Behaviour Questionnaire (Wardle et al. 2001) which I reviewed with the CBW. I applied these prompts in a discussion style format, rather than as a formal questionnaire, which was deemed more suitable by the CBW and study reference group and aligned with the study methodology. I conducted all interviews in a yarning style which was flexible and responsive to the conversations (Geia, Hayes & Usher 2013; Walker et al. 2013), as initiated by the caregiver. All of the interview prompts were over a series of interviews, allowing for responsiveness and adaptation as required. As emerging themes arose from discussions with a number of caregivers, these themes were discussed with other caregivers to determine similarities and differences in experiences. I have included a copy of the discussion prompts in Appendix 4.

The CBW accompanied me to all interviews in the early stages of the research, however as my relationship with each participant developed, I attended some interviews alone but would reflect on the discussions with the CBW afterwards. These discussions were important in providing context to the themes discussed at interviews. In the initial stages of the research the CBW spent a lot of time explaining the rationale of and clarifying details which I may have missed in the interviews. However, as my relationships developed with participants, the stories provided became more detailed and I found that I was able to clarify more information and to discuss alternate views and knowledge with participants. This process was enabled through the development and prioritising of relationships with participants as I discussed in Chapter 6.

6.6.4.2 Photo voice activities

I attempted to undertake photovoice activities with caregivers, however these were unsuccessful despite the caregivers voicing great interest in the activity. During Stage Two of the research I provided each caregiver with a disposable camera and asked them to take photos on two separate days of their child's eating. I guided caregivers that images could include anything they would like to share about their child's eating including how food is obtained and prepared, what foods were eaten, who prepared the food and who was present when the child ate. I left the cameras with the caregivers and returned two weeks later to collect them, however two out of six of the original cameras were lost or damaged during this time and the remaining cameras contained black images when processed (the cameras did not have a flash). I re-attempted the activity and provided cameras with flashes, however only one set of images was able to be processed. I attempted a third round of photo voice activities by lending a camera to the CBW and whilst some images were received, they were inadequate to gain stories of the children's diets and feeding practices. I have included the one set of images (with permission) and accompanying story as told by the caregiver, with the data gained from the caregiver interviews.

6.6.4.3 Review of child medical and growth records

I had gained approval from the NT DoH to access the medical records of children, whose caregivers provided consent, via the PCIS computerised medical record system. All caregiver participants provided their consent and I reviewed each child's record to determine if the child had experienced any illnesses or conditions that may influence the feeding experiences and practices of caregivers, and to observe the practices of health professionals in child health/nutrition assessments and education.

Specifically, the file audits included a review of:

- I plotted any dates and a summary of any major illnesses that may impact on growth or nutritional status onto the child's growth chart
- I recorded history of attendance at Healthy Under 5 Kids Check (Hu5K) and the components of the check undertaken
- I reviewed growth charts to determine any occasions of deviance in growth and checked medical files to determine if any growth action plans had been initiated for the child
- I documented any recorded haemoglobin levels or instances of anaemia onto the child's growth chart
- I recorded any documented instances of nutrition education or referrals for nutritional assessment/education

Whilst in the initial planning of my research I intended to use this information to understand the children's health status and its potential influence on child feeding practices, as I altered my approach to the research this data became of less importance. In acknowledgement of the importance of this knowledge to health professionals and its use in practice (as discussed in section 8.2), I continued to obtain this data, however limited its use to guiding discussions with caregivers to explore the information that they had received from health professionals relating to these indicators and the importance of these indicators to caregivers (described in section 7.3).

I discussed any noted health concerns with caregivers and sought information from them as to whether this had influenced feeding practices, whether they had received any nutrition interventions from health professionals and what these interventions had entailed.

6.6.4.4 Caregiver participants

The CBW invited ten women to participate in the research. This represented 59% of eligible primary caregivers in the community, with the remainder unable to be located to provide consent to participate. Nine primary caregivers of 8 children: 8 mothers and 1 grandmother consented to participate in the study. This grandmother was a grandparent to 3 of the children engaged in the study and resided with two-three of the children throughout the study duration. Half of the primary caregivers were also secondary caregivers to other children engaged in the study, this reflects the proximity of family and community relationships in remote Aboriginal communities and shared responsibilities for child rearing as discussed in section 3.8. The characteristics of study participants for Stage Two of the research are detailed in Table 6.4.

Table 6.4 Characteristics of primary caregivers
(n=9)

Age range of primary caregiver (excluding grandmother)	25-38 years	
Age of child in study	3 months- 3 years	3-6 months (2) 7-12 months (1) 13-18 months (0) 19-24 months (2) 25-36 months (3)
Parity	1-4 children	
Education level	Minimum Year 10 Maximum Year 12	
Employment status	Employed (3)	
Confidence in English skills	Good-excellent	
Child attends childcare	No (3) Irregularly (3) Regularly (2)	

6.6.5 Community observation

Observations are recommended to complement interviews, as they allow for greater understanding of the context of the data and individual experiences, which enhance the researchers ability to analyse meaning and to gain different perspectives that can be discussed with participants (Durey & Thompson 2012; Sallee & Flood 2012).

During each stage of the data collection I undertook a series of community-based observations of child feeding practices across the community, including at the childcare centre, caregivers' homes, the community store, the health clinic and generally around the community. I also observed the practices of health professionals and their interactions with caregivers. I recorded these observations in my reflexive journal and utilised these findings to prompt the seeking of further information from community members, including staff working at the store and at community services, caregivers and the CBW and to contextualise the findings. I also utilised this data to triangulate findings from caregiver interviews.

6.6.6 Data collection Stage Three- health professional interviews

I conducted semi-structured interviews with health professionals after the completion of the caregiver interviews and a period of community observations. This process ensured that I had gained a strong understanding of the community's perspectives and practices which I could then discuss with health professionals. It also allowed me to forefront the voice of the caregivers, without reflection on health professionals' practices, which are already dominant in this space.

I invited health professional participants to nominate a preferred meeting time and venue for the conduct of one semi-structured interview, with face-to-face meetings scheduled for participants residing in Central Australia (4) and phone/Skype meetings (3) for those who had moved away from the area. I developed interview prompts (Appendix 5) based on a review of the literature, with consideration of the community findings and the research aims. All participants consented to audio recording of the interview, however the sound quality of three interviews was inadequate for transcription. I took detailed notes at the time of all interviews. Interviews were between 45-90 minutes in duration.

6.6.6.1 Health professional participants

I identified 7 health professionals, for whom I could access contact details, as eligible to participate in the study. All provided consent to participate. The aggregated data of the characteristics of these participants are summarised in Table 6.5. Participants were representative of each of the main health professional roles providing nutrition activities in the community and had a variety of experiences working with the study community and in Aboriginal health.

Table 6.5 Characteristics of health professional participants

(n=7)

Health Profession	**Average years of experience working with community (range)**	**Average years of experience working in Aboriginal health (range)**	**Non-discipline specific training in child health**	**Non-discipline specific formal training in nutrition**
Remote Area Nurse (RAN) Child and family health nurse (CFHN) x2 Public Health Nutritionist (PHN) x2 Paediatrician Remote Medical Practitioner (RMP)	1.2 years (9 months- 2 years)	7.3 years (2.5- 20 years)	Diploma child health (partial) (1)	Online certificate (1)

6.6.7 Reflexive journal

I maintained a reflexive journal throughout the research process to record my thoughts and reflections during the research period and any changes I had made to practice or my approach to research. I wrote in this journal during each visit to the study community and regularly throughout the research planning, implementation, data analysis and thesis writing stages of the study. The journal was an important component of a reflexive approach to research and I reviewed it regularly to critically analyse my progress with the research and in self-development, which I have documented as part of the reflexivity methodology in this thesis.

6.7 Data management and analysis

6.7.1 Data management

I transcribed all audio files, where consent was provided and audio quality was adequate, and cross-checked all transcriptions against the notes recorded during the interviews. I also used these notes to document context and nuances that had not been picked up in the transcriptions. When consent had not been received for audio recordings. I reviewed the detailed notes that I had recorded during the interview immediately after each interview, added additional notes and reflections then checked the content with the CBW or participant for accuracy. All participants were invited to review the notes/transcriptions recorded from their interviews, however all declined. I stored all notes and documents relating to the research in a locked filing cabinet and/or password protected computer.

6.7.2 Data analysis

All transcripts and focus group/interview notes were transported into QSR NVivo 12 (QSR International 2018) under community, caregiver or health professional cases. I then utilised the process of deconstruction and reconstruction described in section 0 to analyse the data in an iterative process, searching for underlying elements before creating codes, which I reanalysed for rival explanations and modified. This process enhanced my understanding of the data and led to the creation of broad themes.

I generated initial themes around the research questions and created further sub-themes based on findings of interest. This led to the creation of an unmanageable number of themes and I used scissors and paper to reconsider the themes and manually move them into smaller datasets. These themes were used to report on the data in Chapters 7 and 8, relating to the community and health professional findings and quotes from the caregivers and health professionals and notes from my reflexive journal were added to support the themes. I applied pseudonyms in place of any names for confidentiality reasons and deidentified any quotes that may identify an individual or their professional background. This was necessary due to the small number of participants and diversity of backgrounds.

I then reviewed the coded data and the draft results using cultural interface theory, to determine the congruence between the caregivers' and health professionals' findings and to explore the sharing of knowledge and meaning, as reported at the commencement of Chapter 9. To analyse the data for the remainder of Chapter 9, I reviewed the un-coded data with consideration for the concepts of critical social theory and postcolonial theory. Emerging themes and relating quotes/observations were documented onto butchers paper and I worked through a process of creating and redefining themes and cross checking them against the theories before merging overlapping themes where relevant.

6.8 Chapter summary

In this chapter I described the methodological approach and methods used in this study. After the initiation of the research, I considered my own constructs of reality and knowledge and moved from a positivist paradigm, which may have directed a quantitative approach in search of a valid and single answer to child feeding practices, to a constructionist approach to the research. This shift led to my modification of the research questions and application of qualitative research methods, using critical social research and reflexivity, underpinned by cultural interface, critical social and postcolonial theories.

The critically reflexive approach allowed the use of participatory methods and an iterative approach in deconstructing and reconstructing the data, in order to understand the lived experiences of both caregivers and health professionals, in feeding and providing advice on feeding young children. My use of this approach and theories supporting this approach also allowed an exploration of the socio-political-historical structures and contexts that shape feeding behaviours, the practices of health professionals and the interactions between caregivers and health professionals when sharing information on child feeding.

Given the history of unethical research practices, which do not meet the needs of Aboriginal peoples, and have led to exploitation and racism, participatory research methods that consider and respect Aboriginal worldviews and the needs of the community are essential. I utilised the National Health and Medical Research Council (2018) guidelines for ethical conduct for research with Aboriginal and Torres Strait Islander peoples and the principles for relevant and culturally respectful research, developed by Jamieson et al. (2012), to guide the research design. The key ethical principles that I applied to this research included active collaboration with the community throughout the research process, the use of participatory research methods and the use of a flexible approach, with time taken to build and maintain trusting relationships and reciprocity with participants and other community members. The use of a reflexive journal to record my experiences during the research and to critically analyse my interactions with participants, the research process and the analysis of data, were also critical in understanding my own impact on the research, and the impact of the research on my own practice.

7 FINDINGS ONE- A COMMUNITY PERSPECTIVE OF CHILD FEEDING

In this chapter I present a description of nutrition in early childhood from the perspective of caregivers and in the following chapter (8), I present the perspectives of health professionals. I have limited the analysis of the findings in these two chapters so that I can present the voice of each participant group equally. In Chapter 9, I explore the interactions of the groups when they meet at the cultural interface and apply the theories outlined in Chapter 6 to understand factors influencing these interactions.

As discussed in Chapter 3, there are very few descriptions of the diets and feeding practices of young children living in remote Aboriginal communities in Australia. Current information is limited to brief descriptions in ethnographic reports (Hamilton 1981, 1982; Harrison 1986; Kruske et al. 2012; Shaw 2002) and two small nutrition studies (Ashman et al. 2016; Leonard et al. 2017). Descriptions of practices are mainly limited to the types of foods provided to children, although some ethnographic studies have also provided a small amount of information on the context in which foods are provided. All studies are voiced from the perspective of non-Aboriginal researchers and I was unable to identify any studies that explored the perspectives of primary caregivers in their daily child feeding practices and experiences.

This chapter promotes the voice of caregivers and reports on the child feeding practices undertaken and the factors informing feeding decisions and practices. It integrates knowledge gained from focus groups with community members, interviews with primary caregivers and researcher observations of the interactions between caregivers and children and the environment in which foods are provided. During my interactions with community members I critically reflected on how my own knowledge and experiences shaped my relationships with caregivers and my interpretations of observations and knowledge. To ensure appropriate representation of the community voice, I reviewed all findings arising from my interactions with community members with the CBW and study reference group. This helped to clarify or provide further detail to participant responses and led to minor changes in data analysis where my understandings of the meaning of data varied from that of the participants, as explained by the CBW.

I open this chapter with a description of life in the study community before outlining the community's current concerns regarding the health status of their children. I discuss the exchange of nutrition information in the community and community level understandings of the dietary practices recommended by health professionals, before detailing the feeding practices of young infants and the determinants of these feeding practices.

7.1 Family life in the study community

Families in the community lived in close social relationships with other members of the community, particularly those from the same kinship group. There was frequent movement between households for social activities and for living arrangements and as discussed in detail in section 7.2.2, a number of caregivers across households, were involved in childcaring duties, including feeding.

There was significant relocation between homes during the study period and families transitioned in and out of living arrangements with larger family groups and small nuclear style family homes. This was related to caregiving needs for older relatives or a need for family support on the arrival of a new child or periods of financial difficulty and alterations in family relationships. During the day, families were also highly mobile, and caregivers and their children would generally be located at one of the participant's homes at breakfast time, before moving to childcare or another home; with further movement between homes and the store later in the afternoon. Similar daily movements between homes was discussed by Yasmine Musharbash (2008), in her ethnographic study of families in Yuendumu, Central Australia. Musharbash describes that the movement between homes is not random as households are often established or altered by members access to money and resources, which enable and reinforce relationships and acts of reciprocity. She identifies that this movement is as an integral part of social practices and Aboriginal ways of being in the world and reflects that this movement challenges Western concepts of households and families.

Relationships between community members were usually highly supportive, however during the study period there was conflict between two kinship groups living in the community. This was reported by caregivers to significantly impact on the health of children as caregiver's monitored their movement around the community and interactions with others. On one afternoon friction between the groups escalated and one group was expelled from the community with the assistance of police from a nearby community. This group did not return to the community during the study period.

7.1.1 Access to services

Whilst there was access to local and territory operated services such as the health clinic and childcare in the community, their operation was unstable and relied on the ability to recruit to management and professional positions. During the study period the health clinic was closed for extended periods of time due to inadequate staffing. The clinic would also often close temporarily when staff had been called out to incidents overnight.

The childcare centre was also closed in the lead up to the study period. Whilst many local women wanted to work at the centre there had been difficulties recruiting a manager. Responsibility for operation of the centre was moved from the council to the school and the principal acted as the manager of the centre for a period of time allowing its opening. However, this was unsustainable and management responsibilities were transferred back to the council who were finally able to employ a manager after a short closure of the centre.

The community were vocal about these impacts on their services and regular community meetings were held with government officials and other administrative bodies to seek solutions to enable more consistent service provision. Similar community action was observed when housing renovations had been undertaken in a number of nearby communities. Discussions identified that renovations had not been commenced in this community because the community representatives had not signed new 40 year township or remote housing leases with the government, required for the building and maintenance of houses and management and maintenance of government and community facilities, such as the health clinic. Upon community negotiations and signing of the leases, renovations were undertaken on houses at the end of the study period.

7.1.2 Access to employment and finances

As discussed in section 6.1, opportunities for employment in the community were limited to around 40 positions across the community services and the store. Three women were employed during the research period, each at shire operated services in the community. Two other participants had previously been employed in the community, however due to limited employment opportunities, were not working at the time of the study. A number of community members, including most of the children’s fathers, were engaged in the Remote Jobs and Communities Program (RJCP), in which all adults aged between 18-49 years of age are required to undertake work-like activities to enhance employability skills (Australian Government 2014). The caregivers spoke of their partners intentions to gain work in the establishing mining industries around the community. The older members of the community spoke often of times when most of the men in the community were employed on local cattle stations, their skills as stockmen formed an important part of their own and the community’s identity, however few men were contemporarily employed by the stations, despite regular upskilling programs.

All families involved in the study received family tax benefits and parenting payments as a main source of income. The estimated median weekly household income in the community was $1042 and median weekly family income was $481 (Australian Bureau of Statistics 2018). The poverty line (50% of median income before deducting housing costs) for a single adult in Australia in 2020 was $547 per week and for a couple with two children it was $960 per week (Davidson et al. 2020). The payment method for government benefits meant that family members were often paid on different days or weeks. This allowed the sharing of money and resources, such as food, between families across the pay cycle. This reciprocity was reported by community women and caregivers to significantly influence feeding roles and responsibilities across family groups and I discuss this further in section 7.7.4.

Caregivers often reported difficulties with their government payments and sought my assistance in using the computer or to make phone calls to solve finance issues. In particular, payment delays occurred on the birth of a new child or when caregivers or their partners commenced or ceased employment. Most issues were able to be resolved from the computer or telephone, however given that phone access was limited to two public phones and one mobile phone hotspot (the community did not have mobile phone coverage), both located in public areas in the community, and internet access was not available from any home in the community; caregivers were reliant on either the childcare centre or local council office to access phone and computer facilities. Some issues, such as registering the birth of a new child, required attendance at a government service office in a major community. For one new mother, who did not have access to a car, rectifying payment issues took in excess of one month.

7.1.3 Housing and health hardware

At the initiation of Stage Two of the research, 4 participant families lived as discrete nuclear-style families of parents and children. The other families (4) lived in multigenerational households, consisting of grandparents and a number of parents and their children. These households contained up to 10 people. There were no privately-owned houses in the community. All houses occupied by community members were similar to that illustrated in Figure 7.1, in that they were rented from the government and consisted of 2-4 bedrooms (71% being 3-bedroom houses), a living area, kitchen, bathroom and laundry. Family groups lived in various rooms of the house and the living area was often used as a sleeping area. Young children usually co-slept with their caregivers. Many houses were furnished with beds, few houses had lounges, dining tables or other furniture.

Figure 7.1 Typical housing in the study community

* all photos used with permission

Table 7.1 describes the study participants access to health hardware and transport. Renovations of every house were undertaken at the end of the study period with Figure 7.2 displaying the kitchens of homes pre and post renovations. Kitchens were supplied with stainless steel benchtops, a pantry area and a stove with hotplates and oven. At the time of the study the stove was not functioning in three of the study households. The repair of stoves was the responsibility of the Department of Housing, however caregivers complained that they often needed to report faulty stoves a number of times prior to their repair, and there were long delays in repairs.

Figure 7.2 Typical kitchen pre and post renovation

Table 7.1 Characteristics of households

Number of people living in house	4-10 people	Dwellings consisted of 3 bedrooms
Access to working fridge	4 (of 8 households)	1 access to shared bar sized fridge in large household only
Access to working stove	5 (of 8 households)	
Access to working car	4 (of 8 households)	

Residents were required to supply their own fridges and washing machines. During the study period, only two of the families had access to an adequately sized, functioning fridge. Caregivers reported that health hardware was frequently damaged by pests, with mice and cockroaches burning out electrical motors in fridges and other equipment. Maintenance and repair of these items was not available in the community and damaged items therefore needed replacement. Families were able to purchase fridges and other equipment through the community store on a lay-buy system, however the cost of this was prohibitive on a low income and caregivers reported that they were generally only able to purchase these items on receival of lump sum payments from royalties or other payment sources.

> “most people will buy expensive things when they get a big payment, but the store has lay buy where you can pay a deposit and take it and then pay it back [over a period of time]” (community woman, interview)

Throughout the study, caregivers frequently requested my assistance in seeking financial advice for purchasing of whitegoods or access to second-hand items. Transport of second-hand items was difficult and expensive and therefore not viable for most families. A no-interest loan scheme had been established by the government for low income earners to assist with the purchase of essential items, however the auspicing organisations were based in Alice Springs and did not travel to remote communities. Applicants were required to schedule a face to face meeting with a financial counsellor in Alice Springs prior to completing paperwork to apply for the loan, and at the time there was a two-three week waiting time for appointments.

Access to other health hardware items required for the storage, preparation and cooking of foods were also limited. Caregivers reported that they did not have storage containers for non-perishable food items and foods were often spoiled by cockroaches and mice. Cooking equipment was limited to one or two pots and a knife, these items were often damaged or lost as they were shared amongst a number of households. A small range of cooking equipment was occasionally available at the store, but was limited in variety and highly expensive, for example a small storage set which cost $9 in Alice Springs was available for sale at $25 in the community store. Access to functioning health hardware was a key determinant of feeding practices, which I discuss further in section 7.7.2.

7.2 The food environment

7.2.1 Roles and responsibilities for food related activities are based on the pay cycle

Access to money was a key determinant of feeding practices and caregivers reported that the types of foods purchased for children and families varied significantly over the fortnightly pay cycle; with increasing reliance on cheap, filling foods as the pay cycle progressed and when money was obtained from others. I discuss this further in section 7.7.1.

Food insecurity, in terms of access to a food source, was managed through acts of reciprocity within family groups; however due to low incomes and high food costs, the nutritional quality of the diet may still have been negatively impacted. Caregiver's reported that various women in the family group took responsibility for shopping and cooking duties on each of their paydays. This occurred not just in family groups that were residing in the one house, but across homes, and resulted in a number of women influencing the types of foods offered to young children as they moved to other homes for meals later in the family pay cycle.

> "lots of sharing happens, if you run out of food family help you out with food or money" (community woman 2, interview)

> "when it's not pay week, we go to my Mum's house, she helps me to feed Jay" (mother 1, interview 2)

As meats were consistently reported as too expensive for regular purchase, key family members who had access to cars, guns and ammunition and were able to hunt, provided bush meats to family members who were unable to hunt themselves. Due to the resources needed to hunt, these activities were limited to two households in the community, however caregivers related to these households reported the sharing of bush meats was an important source of nutrition for their children.

> "we don't get meat after pay week, unless Rachel brings us things from hunting- we share that" (mother 1, interview 2)

> "it's harder when it's not pay week, we eat more damper or we share food with family… Rachel, she gets us kangaroo and killer (beef) and we share that" (mother 2, interview 5)

7.2.2 Role of the mother and other caregivers varies with child age

Caregivers reported that mothers were primarily responsible for feeding young children and any decisions regarding feeding. As young babies were predominantly breastfed, they generally remained in close proximity to their mothers, or were returned to their mothers at any sign of hunger or distress. Mothers also determined when complementary foods would be commenced, what foods would be offered to young infants and undertook most of the feeding of young children. If the mother was temporarily unavailable, a close female relative, often an older sibling or an aunt, would usually take over feeding responsibilities, with grandmothers assuming a role in longer term care and as the main source of advice for any feeding issues or concerns. This aligns with the duties of extended family members in child rearing and kinship responsibilities discussed in section 3.8.

As the child became more independent in feeding, generally around 12-18 months, or after the eruption of four teeth and/or molars (discussed in detail in section 7.5.4), other women became more involved in feeding the child. Some fathers also assisted with feeding children from this time, in particular the breakfast meal. From preschool age, children were deemed to be relatively independent in their food choices, spending more time away from the caregivers and in the company of peers and older children who influenced what foods are accessed and where.

> “mothers buy the food for the little kids; they can stop kids from eating things. Once they are at school, you can’t stop them, they get money and go to the shop and choose what they want” (mother 3, interview 3)

> AB: “who made the porridge for breakfast?”
>
> Mother: “his Dad, he usually gives him breakfast”
>
> AB: “that's great, do Dads help much to look after the kids?”
>
> Mother: “yeah, they help lots. Look after them, change their nappies”
>
> AB: “do many of them cook”
>
> Mother: “yeah, but sometimes we don't like what they cook so we don't let them!”
>
> AB: “do you think this has changed over the years”
>
> Mother: “yeah the men didn't used to do that stuff it was women's work but now they help out…”
>
> (mother 1, interview 5)

7.2.3 Where and when meals are eaten

Caregivers reported that meals would be eaten at their home, the home of a family member or the childcare centre. Mothers were often seen driving or walking back from the store with food to be eaten at the home, and families were often observed eating in the yard area or under the veranda of the house. Caregivers reported that meals were also eaten indoors.

Observations of mealtimes confirmed that younger children were generally held by their mother or another woman while being fed. As illustrated by Figure 7.3, at the childcare centre, they were often placed into highchairs. Mothers would generally spoon-feed the main meal to young infants and would push the hands of children out of the way if they attempted to self-feed, stating that it was too messy. Older infants who had commenced snacks and were permitted a greater range of food textures would self-feed with their fingers or a spoon.

Figure 7.3 Children eating main meal at childcare centre

* All photos used with permission

As illustrated by Figure 7.4, children older than eighteen months generally sat on the floor or a mattress on the floor to eat. At the childcare centre they usually sat at a toddler sized table. Caregivers were generally located nearby children when they ate and supervised from a small distance. At the childcare centre one or two women would stand or sit near the table at mealtimes. Children usually self-fed with their hands or spoons and there was little engagement with children when they were eating, however if children were misbehaving or tried to move around when eating, they were directed to sit and eat their meal.

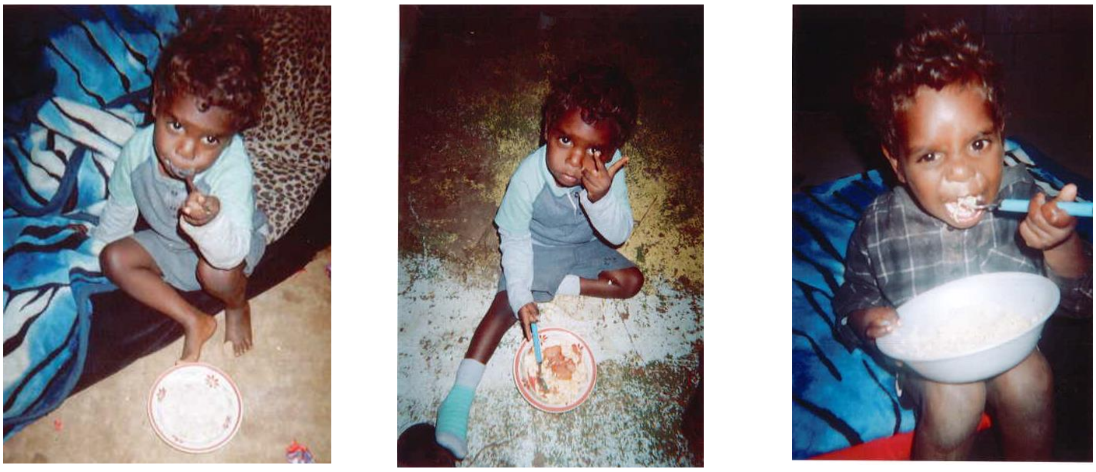


Figure 7.4 Child eating meal at home

Young infants under one year of age, were breastfed on demand and were usually offered one meal of complementary foods per day. Two-three meals per day were offered after approximately one year of age, as guided by the eruption of teeth. Planned mealtimes were provided at the childcare centre, however caregivers reported that at home, children were responsible for instigating mealtimes and there were no set times or routines for the provision of food.

> "she eats more often than we do, she eats when she's hungry…. not always when we eat but when family or kids are around with food she will eat some of that too" (mother 3, interview 4)

This resulted in the opportunistic consumption of food when another family member was eating, which may have included family meals, or foods recently purchased from the store. Caregivers tended to provide the child with a small amount of what they had purchased or prepared for themselves, prepared quick meals such as cereal, tinned spaghetti and two-minute noodles for children when they demanded food or took children to the store to purchase a ready-made food when they were hungry.

> "if she wakes up hungry I make her porridge or give her the spaghetti in a can" (mother 5, interview 2)

> "I gave her weetbix for breakfast but she didn't eat much. When I went to the shop I bought myself a pie and she cried that she was hungry so I gave her some of my pie" (mother 3, interview 6)

7.2.4 Snacks

Caregivers reported that planned snacks were not provided, other than at the childcare centre, unless it was payday and caregivers' had money available to purchase foods such as yoghurt, cheese and fruit. However, I often observed children moving around the community with discretionary snacks such as lollies, juice, icy poles and chips.

> "we might buy some snacks when its pay week" (mother 4, interview 4)

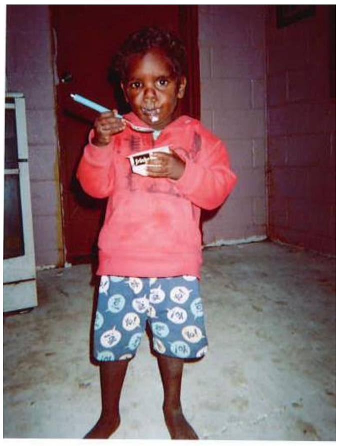


Figure 7.5 Child eating snack at home

As illustrated by Figure 7.5, whilst children would be reminded to sit when eating main meals, this rule did not appear to apply to snacks and children were permitted to move around and play while consuming any snack foods. Discretionary snack foods were also often purchased on demand by the child. Given the different rules applied to their consumption and the purchasing of these foods, usually as unplanned purchases, snack foods were not necessarily viewed as 'foods'. It is likely that these foods were viewed differently to meals and therefore different rules apply to their consumption. This may explain why these foods are often not described by caregivers in diet histories.

7.3 Child health and nutrition concerns in the community

Community perceptions of children's health status were related to general community functioning, for instance, periods of tension between family groups were linked to concerns about poor health for children and immediate child health concerns were considered for their wider impacts on family and kinship groups. This finding relates to literature discussed in section 2.3.1, in that Aboriginal people perceive health in a collective and holistic manner and that daily life experiences are not separated from concepts of health or wellbeing.

Women attending the focus groups reported concerns with high rates of infections, such as diarrhoea and skin sores, amongst children in the community. Caregivers also reported that their children suffered frequent acute infections, with some children experiencing persistent or repeat infections across the entire study period. Whilst my review of the medical records of the children whose caregivers were involved in the study showed that every child was diagnosed with anaemia and two children were identified with growth concerns over the study period, the caregivers did not readily report any diagnoses of anaemia or growth faltering, unless I prompted them. When I asked about these health issues, the caregiver would acknowledge the diagnosis but add a comment that the child was eating well or had not lost weight, finishing with a comment such as “they’re OK”.

> “she had one UTI and was in hospital for that… but she didn’t lose weight, that’s been good” (mother 2, interview 1)

These responses appeared to reflect that visible health issues were of concern to parents, but those for which the child was not displaying symptoms, such as anaemia, were not recognised in daily life. The reporting of a good appetite appeared to reflect questioning by health staff, in that caregivers were routinely asked about children’s appetites and their growth was measured. It may also be associated with caregiver’s concerns that children’s ill health prompts further investigation into the adequacy of their care, leading to fear that they will be reported to children’s welfare services for neglect if their child is underweight or anaemic (see section 3.8).

Community members reported that the health status of children in the community had varied over the past few generations but was better now than it had been in the past. Some women however were concerned that children were getting fatter and consumed too many sweet foods, which they intimated would lead to obesity and other health concerns.

> “they are healthier now, old time they got sick with flu and diarrhoea. Kids now, they are stronger” (community woman 7, interview)

> “some kids are healthy, some are sick- there are both, it’s been changing over the years….. kids are getting bigger/fatter [now]” (community woman 2, focus group)

The high consumption of sweet foods was consistently reported in the focus groups and interviews as the main nutritional concern for children in the community. High intake of sweet foods and a decrease in home cooking were attributed as key causes of ill health amongst children, whilst consumption of a healthier diet, interpreted as home cooked meals with meat and vegetables, as well as regular consumption of bush foods; were seen to improve health status.

> "Healthy kids eat strong food, cooked at home, vegetables, chicken- they eat good" (community woman 2, interview)

> "some kids are getting fatter, they want the sweet stuff and won't eat things they aren't used to…people aren't cooking as much anymore" (community woman 1, focus group)

Caregivers reported that they had tried a number of strategies to reduce their children's intakes of sweet foods. However, they reported that this was difficult, and I was regularly asked for advice on how to reduce the intake of these foods. As discussed in section 7.2.2, caregivers reported that they were able to determine their child's intake of these foods prior to preschool age but had little perceived control over food choices after this time, due to the increasing independence and increased involvement of other caregivers after this age.

7.4 Sources of nutrition information and advice

Caregivers reported that they received information and advice on feeding infants and children from a number of sources, including the clinic staff, family and peers, the childcare centre and television. In particular, the CBW was identified as a key source of trusted information and caregivers reported that they often asked for her assistance and advice in feeding children.

Knowledge of feeding children was gained mostly through observation and women reported that they knew what to do from watching family members and assisting with the care of young children during their own childhoods. Observation of and discussions with other women with similar aged or older children was also a key source of knowledge. Grandmothers were the main source of advice and assistance when feeding problems, such as difficulties with breastfeeding and fussy eating, arose.

> "we go to my mum's house- she helps me to feed Jai. sometimes he doesn't want to eat for me, he wants to play so I can't feed him, his grandmother is better at that (mother 1, interview 2)

7.4.1 Knowledge of recommended feeding practices

I used images of babies at different ages to guide discussions at focus groups and interviews to gain information on what community women believed were the recommended feeding practices for children across infancy and early childhood. Women attending the second focus group also prepared posters based on their knowledge of child feeding recommendations.

As displayed in Table 7.2, the women in the community knew most of the recommended the infant feeding practices outlined in the Australian Infant Feeding Guidelines (National Health and Medical Resarch Council 2012). However, the first foods that the women thought were recommended did not include iron rich foods and the women did not report that an increasing variety of foods were recommended over the first year of life. As I discuss in the following section, most of the actual feeding practices reported by the women, aligned with the recommended feeding practices which were related to developmental determinants of readiness to consume these foods.

Table 7.2 Recommended feeding practices as expressed by community participants

Feeding Practice	Perceived recommendation by community women	Recommendation as per Australian Infant Feeding Guidelines
Breastfeeding	• Babies should only receive breastmilk until they show signs of readiness to start complementary foods • Breastfeeding should continue and is a key source of nutrition throughout the first year of life • Breastfeeding should continue until 12-18 months of age OR until commencement of preschool • If a mother cannot breastfeed the baby should be offered 'baby milk powder' (infant formula)	• Babies should be exclusively breastfed until six months of age when solid foods are introduced. • Breastfeeding should continue until 12 months of age and beyond, for as long as mother and child desire • If an infant is not breastfed a commercial infant formula should be used until 12 months of age
Introducing solid foods	• Around 6 months of age OR able to sit, beginning to crawl or starting to babble • Good first foods are vegetables, weetbix and porridge	• Solid foods should be introduced at around the age of 6 months when an infant is physiologically and developmentally ready • As long as iron rich foods are included, foods can be introduced in any order and at a rate that suits the infant

Progression of solid foods	• Few additional foods were reported as required until 12 months of age, although older babies were reported to be able to eat soft fruits and yoghurt • Babies need smooth foods or they will choke. • Children should not eat chips, chocolate, juice etc until preschool age	• The range and quantity of foods should be increased so that by 12 months the infant is consuming a wide variety of nutritious foods from the five food groups • Consumption of nutrient poor foods with high levels of fat/saturated fat, sugar and/or salt should be avoided or limited • The texture of food should be suitable to the infant's stage of development and progress from pureed to normal textures during the 6-12 month period

7.5 The current diets of young children

7.5.1 Breastfeeding practices

All women expressed strong views that young babies should be breastfed, and that breastmilk was the most important food in the first one-two years of life.

> "the breastmilk is most important, after one they can eat more food"
> (mother 6, interview 1)

> Mother: "its [breastmilk] is really important until they're about one and then they need more food"
>
> AB: "so food is more important from about one year old?"
>
> Mother: "nah, both are important until they're about two, then they need more food" (mother 3, interview 2)

All children participating in the study were breastfed for the duration of the study, with one child temporarily bottle fed (see section 7.5.2 for explanation). The eldest child in the study was weaned from breastmilk at around 3 ½ years of age, after the arrival of his younger sibling. In Figure 7.6, I summarise the breastfeeding beliefs and practices of caregivers, which I discuss below.

Breastmilk is seen as the most important food for infants until one-two years of age

Most babies are breastfed until at least one year of age but often until preschool age

Babies are fed frequently on demand or in response to distress, overnight feeding remains frequent throughout toddlerhood

Mothers determine when breastfeeding will stop but often find the process difficult and ask for assistance. Breastfeeding of older children is less public than younger children

Figure 7.6 Summary of breastfeeding practices of caregivers

I commonly observed infants breastfeeding around the community and noted that young babies were regularly breastfed and quickly offered the breast in response to crying and unsettled behaviour. The higher value placed on breastmilk, as opposed to food, even after the commencement of complementary foods, was evident through the feeding practices of caregivers at the childcare centre. Here I observed that the mothers of infants who had recently commenced eating foods would often move away to the quiet room to breastfeed their child when meals were served. The infants would often fall asleep at the breast and would then not be offered that meal. Infants aged from around 8-9 months of age were placed in a highchair for meals and were fed by their caregiver. They were removed from the highchair as soon as they became distracted and would then be offered a breastfeed. Children of this age were also breastfed and not offered food at snack times, with snacks only offered to children from around one year of age.

Caregivers of toddlers reported that they breastfed their children frequently, but they were unable to quantify the number of feeds offered per day, as feeding took place on demand, generally when children were tired or distressed. Some older infants were reported by caregivers to breastfeed every hour and overnight feeding was common amongst toddlers, as children generally co-slept with their mother and had ready access to the breast overnight.

Caregivers explained that the decision to stop breastfeeding was made by the mother and there were frequent comments along the lines of “when she (the mother) has had enough, she will stop them”. The age of planned cessation of breastfeeding varied slightly between mothers but was generally between one to two years of age.

> Regarding two year old: “he still is [breastfeeding] lots! Jai [older brother] stopped when he was about one, that was good, but Silas just wants to keep feeding. I think he would breastfeed all day if he could!” (mother 6, interview 1)
>
> when will they stop breastfeeding? “up until about two years old, that’s enough” (mother 2, interview 1)

One community woman specifically reported that children should only be breastfed until “one year old, or maybe six months more”, reporting that after this time “they (the mothers) get sick of feeding them any longer and don’t need to…. their milk is no good after that and it starts to dry up, them kids don’t need it, it’s dried up and no good” (community woman 9, interview). This response aligns with the recommendations provided by some health staff, as I discuss in Chapter 8, and may reflect the nutritional education provided by staff, as opposed to community beliefs.

Some women however believed that breastfeeding should continue until preschool age and my observations in the community indicated that breastfeeding is continued well beyond two years of age for many children, as I frequently observed mothers breastfeeding preschool aged children at the completion of the preschool sessions. Mothers of the older children often asked for assistance on how to stop breastfeeding and described weaning from the breast as difficult. Whilst younger children were observed breastfeeding publicly, older children were often removed to a more private space such as the quiet room and some mothers seemed ashamed when asked of their breastfeeding practices.

> During conversation of foods provided to three-year-old:
>
> AB: “does he breastfeed?”
>
> Mother: (looks ashamed) “yes, he still wants lots of milk… when he wants a sleep… other times I try to get him to do something else, like I give him something so he doesn’t want it… I try to give him milk, you know fresh milk, but he doesn’t like it, I think the flavour is funny, it’s different to breastmilk” (mother 1, interview 2)

7.5.2 Formula and bottle-feeding perceptions and practices

One child was temporarily bottled fed while his mother was living away from the community and he was under the care of his grandmother. This child was the only child in the community that I am aware was bottle fed during the duration of the study. Whilst the caregiver reported that this child was provided with an infant formula in his bottle, other mothers reported during different conversations about bottle feeding, that powdered cow's milk was being provided in the bottle.

Formula/bottle feeding was perceived negatively by caregivers participating in the study, however its use for medical reasons, such as poor growth was accepted by two women.

> "breastmilk is best, it's the natural thing, it's safer and cleaner and it's got all the right things that babies need. That baby milk [formula] it's too dear, those mothers should spend that money on food for the other kids and the rest of the family" (mother 2, interview 1)
>
> "my nephew didn't grow well as a baby and he had to go to hospital when he was about six months and he got put on formula, that helped him put on the weight" (community woman, focus group 2)

Bottles were reportedly used by some families for the provision of water, in addition to sweet drinks and cordial. However, whilst there were a number of baby bottles available for sale in the local store (2 rows of shelving), the only infant that I observed drinking from a bottle during the study was the one child who was temporarily formula fed. Store managers also reported low sales of formula which had decreased over recent years (personal correspondence, CG).

7.5.3 Practices for the introduction of complementary foods

Most of the caregivers reported introducing complementary foods between 4-5 months of age, with one baby not commencing complementary foods until 8 months of age. I have displayed the age of introduction to complementary foods for each of the infants in Table 7.3.

Table 7.3 Age of introduction of complementary foods

(n=8)

Age of introduction of complementary foods	Number of infants
Less than 4 months of age	0
4-5 months of age	5
5-6 months of age	1
6 months of age	1
Older than 6 months	1 (8 months)

Participants reported that the introduction of complementary foods was guided by an infant's developmental cues, such as the ability to sit, babbling, watching others eat, grabbing at food and crawling; as opposed to the age of the infant. Different caregivers described a range of developmental indicators, based on average child development, most of these indicators would guide the introduction of solids between 4-6 months of age, however some milestones such as crawling may not be reached until 7-10 months of age.

> AB: "How would you know when a baby is ready to start the solid foods?"
>
> Mother: "their poos get tarry and harder, sometimes they get bleeding, it happens about 4 or 5 months old. They also cry when other people are eating and make noises- they want some too. and they start to get their first tooth" (mother 4, interview 1)

> "they are trying to crawl and they try to talk a lot at that age" (community woman 2, interview)

As I illustrate in Table 7.4, the first foods commonly introduced by caregivers were vegetables, weetbix and jarred baby foods. One mother reported including chicken with the vegetables offered as first foods and one mother offered yoghurt. Baby rusks were also identified as appropriate foods to offer when infants were teething. Vegetable and savoury varieties of jarred foods were selected and the recommended age on the packets was used to determine the appropriate choice for the infant. Sweet varieties of jarred foods, such as custards, were reported to be used occasionally.

Table 7.4 First foods introduced by caregivers

(n=8)

First food offered	**Number of caregivers reporting**
Vegetables- pumpkin, potato	5
weetbix	4
Jars of baby food	4
Chicken with vegetables	1
Yoghurt	1

Participants emphasised that the foods provided to babies needed to be smooth and there was a high level of concern that infants and young children would choke on foods. The ability to easily prepare smooth foods guided the selection of first foods and caregivers reported that they provided jarred foods to their babies because these foods were a safe consistency, so that babies would not choke, were healthy and were ready to use when babies were hungry.

> "they are easy, already made and they have what the babies need and they can't choke on them" (mother 3, interview 1)

Jarred foods were predominantly provided at lunchtime meals and some caregivers reported that they were not suitable as breakfast foods. Caregivers stated that rice cereal was a good food for infants, but they did not provide it because babies usually did not like the flavour. Weetbix was also seen as an appropriate food, by most caregivers, although one mother reported that it was "too hard for little kids". Its provision to infants however was limited as it was often consumed by older siblings and family members, hence was not always available.

> Discussion of foods provided to seven-month-old:
>
> AB: "Does she eat breakfast yet?"
>
> Mother: "nah, she doesn't like that rice cereal"
>
> AB: "so, she's big enough to eat breakfast"
>
> Mother: "yeah, she's big enough"
>
> AB: "you wouldn't give her the jars at breakfast, like at other meals?"
>
> Mother: "no, not breakfast"
>
> AB: "what about other foods, like weetbix?"
>
> Mother: "yeah she would, but she wouldn't get a chance- her big brothers and sisters eat that before they go to school, its busy and they eat it all [before I could feed her]"
>
> (mother 2, interview 1)

Whilst jars were a preferred food at home, the childcare manager reported that when she offered jars for use at the childcare centre, the mothers had refused, preferring to feed their babies the meals that had been cooked at the centre. The preference for freshly cooked meals prepared in a safe environment may relate to the community's perceptions of the healthiest foods as those that are cooked at home and the fact that home cooking is limited by food availability, hygiene, a lack of safe food storage and lack of infrastructure for the preparation and cooking of meals (see section 7.8.2).

7.5.4 Progression of complementary foods

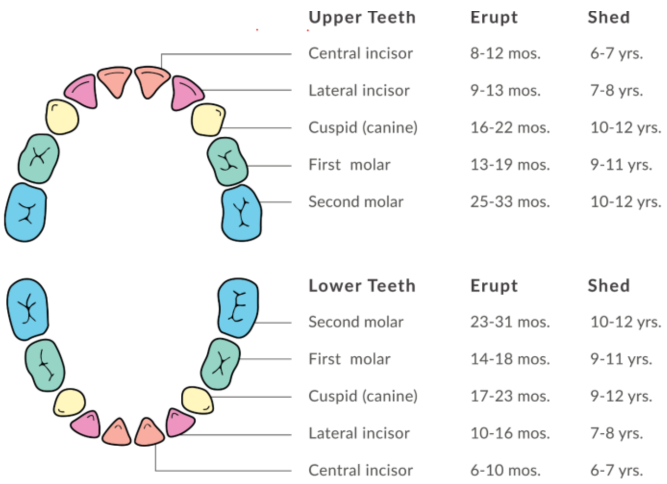
Women at the focus groups did not recommend the addition of a variety of foods into an infant's diet until after one year of age. This recommendation matched the reported feeding practices of caregivers, who reported that the introduction of foods to the diet was dependent on the eruption of a child's primary teeth. This finding was consistent across caregivers and appeared to be a long-held belief, reported by both mothers and grandmothers, and confirmed by other older women in the community. Women emphasised that children could only eat smooth soft foods, such as jarred foods and mashed vegetables, prior to the eruption of their first two teeth, and the progression of other textures was restricted until the eruption of the first four teeth.

> "they can't eat food when they have no teeth" (grandmother, interview 1)
>
> "they only eat the jar foods until they get four teeth. I started to give Anna some baby rusks, because she has one tooth now" (mother 2, interview 4)
>
> "he is eating the same foods as us now, probably a few months. Before that he just had the mashed-up vegies, and potato, until he had enough teeth" (mother 6, interview 3)

The first, smooth foods offered to infants, may not have been perceived as 'foods' by some women. For instance, one mother and grandmother, reported that children did not eat "food" until they were one to two years of age but described offering infants smooth textured vegetables.

> "one [year old] for proper foods, he started the jars of baby food at about five months old though" (mother 6, interview 3)

This may reflect why breastmilk is seen as so important until one year of age and explain the delayed progression in meal frequency until after one year of age. Figure 7.7 indicates the average age at which teeth are expected to erupt with four teeth present at around one year of age.



Upper Teeth	Erupt	Shed
Central incisor	8-12 mos.	6-7 yrs.
Lateral incisor	9-13 mos.	7-8 yrs.
Cuspid (canine)	16-22 mos.	10-12 yrs.
First molar	13-19 mos.	9-11 yrs.
Second molar	25-33 mos.	10-12 yrs.

Lower Teeth	Erupt	Shed
Second molar	23-31 mos.	10-12 yrs.
First molar	14-18 mos.	9-11 yrs.
Cuspid (canine)	17-23 mos.	9-12 yrs.
Lateral incisor	10-16 mos.	7-8 yrs.
Central incisor	6-10 mos.	6-7 yrs.

Figure 7.7 Timing of the eruption of infant primary teeth
(image from Getty images)

Table 7.5 outlines the foods that caregivers reported were provided after the eruption of a certain number of teeth. This indicates that foods are restricted to those that are soft and easily mashed to a smooth consistency until the eruption of two teeth, when soft foods that can be broken into small pieces are provided. Firmer foods are delayed until the eruption of four teeth and those that require significant chewing are delayed until the eruption of the first molars.

Table 7.5 Introduction of foods based on the eruption of teeth as described by caregivers

No teeth	1 tooth (6-8 months)	2 teeth (8-10 months)	4 teeth (9-12 months)	Molars (13-19 months)
Jarred baby foods weetbix Porridge Mashed vegetables Rice/pasta (some caregivers)	8 month jarred foods Baby rusks	Banana Yoghurt Tinned spaghetti Soft egg Soft cheese sticks/slices (some) Soft crackers (some)	Damper/bread Baked beans Minced meats Tuna Peanut butter Stews	Chunks of meat Roast meats Hard fruits Family foods

During my observations of children eating at the childcare centre, I noticed that whilst mothers offered the main meal to children under one year of age, they would finely mash the vegetable or starch component of the meal (usually potato, pumpkin or rice) with a fork, and push the meats, including minced meats to the side, leaving these in the bowl and preventing the younger children without teeth from eating them. For older children with 2-3 teeth, caregivers started to offer very small amounts of minced meats mixed with the mashed vegetables on the spoon, leaving most of the meats in the bowl. Similarly, younger children were only offered the softer fruits at snack times, or occasionally mothers would bite small pieces off harder fruits, such as pears, to offer these to their infants. Children over one year of age were generally left to self-feed. These observations relate to the food progressions outlined above and were confirmed as daily practice by the childcare manager.

7.5.5 The toddler diet

Caregivers reported that after the eruption of the first molars, children would be introduced to the family diet. As discussed in section 7.2.3, older children were offered foods when hungry or opportunistically ate foods that caregivers had purchased or prepared for themselves. When children initiated a meal at a time when others were not eating, caregivers reported that they prepared a quick meal, commonly tinned spaghetti with egg, two-minute noodles or bread/damper, or would purchase a readymade meal from the store. If foods were unavailable in the home, the store was closed or the meal took too long to prepare, children would be offered a breastfeed.

Access to discretionary foods increased over toddlerhood as caregivers attended the store to purchase foods for children when hungry. Children of this age also tended to demand unhealthy discretionary foods, in particular sweet drinks, icy poles, lollies and chips. As I previously discussed, caregivers were highly concerned about the amount of sweet foods consumed by children of this age and in section 7.6.2 I discuss how caregivers managed these demands. However, discretionary snack foods were not necessarily seen as an eating occasion and were consumed in different eating environments to meals, hence their consumption may not have been as easily identified.

7.6 Feeding strategies of caregivers

My discussions with caregivers around their employed feeding strategies were guided by discussion points that I developed from the feeding practices and structure questionnaire (Jansen et al. 2014) and child eating behaviour questionnaire (Wardle et al. 2001), that I had reviewed with the CBW. I asked these questions in an informal, discussion style format consistent with the approach applied across the research and in line with the preferred research methods by Aboriginal peoples discussed in section 6.6.

7.6.1 Control of how much and what foods are eaten

All caregivers reported that they worried about their children not eating enough food but trusted that their child's body knew how much and what type of food they needed. This was reported to be a common belief with one woman stating that "children know what their bodies need, if you want something, it is because your body needs it" (community woman 9, interview). Therefore, children were responsible for determining when they were hungry, how much and what they would eat, from the foods provided by caregivers for younger children, but with increasing autonomy from the child for food choice as they became more mobile and independent.

Caregivers reported however that if they were worried when the child was sick, not gaining weight or was fussy with food, that they would decide if the child had eaten enough and may attempt strategies, such as encouraging children to taste the food and calling them back to eat rather than play, to get the child to eat more food. If these failed, some caregivers described holding the child and trying to feed them, asking the grandmother for assistance or specifically purchasing a food they knew the child would eat, including foods that they deemed unhealthy.

> "he won't eat enough, so I get him to eat some more. I tell him he has to eat some more food and I will hold him and get him to eat with the spoon. More when he's sick, cause then he doesn't want to eat" (mother 1, interview 3)
>
> "if they won't eat sometimes, we get them other things we know they like, like chips or something, we ask them what they want and we will get them that food" (mother 6, interview 5)

I observed the spoon-feeding of young infants to be responsive, with caregivers observing and responding appropriately to infant cues. Although I noted some coercive feeding practices, these were generally stopped after a few minutes and the child removed from the highchair.

> “when I arrived, one baby (one year old) was sat in a highchair to eat weetbix. His mother was assisting him to eat with the spoon but he wasn’t that interested. He did pick up the spoon and self-fed a few mouthfuls but the spoon was taken off of him as his mother explained to me that he can feed himself but he makes a mess. She tried on several occasions to feed him the weetbix and did respond to his cues of pursed lips and turned head by removing the spoon, but she would coerce and try to engage him with the spoon soon after. After a few minutes she cleaned him up and let him leave the highchair (journal 18th October 2016)

There was generally little engagement with toddlers when eating, however caregivers were nearby and observed the meals. As stated in section 7.2.3, children were reminded to sit for mealtimes and the mothers of children who misbehaved or attempted to leave the eating area at the childcare centre were called over to sit with their child. These mothers reinforced the need to sit and occasionally encouraged the child to eat, however after continuous distractions the child was usually allowed to move away from the eating area to play, sometimes with some food in their hands. I rarely observed coercive feeding strategies; however, I did see mothers who had spoken to me of their concerns about fussy eating try to pressure their child at the childcare centre to eat more, or to eat specific foods. I noted that the children who had fussed over mealtimes were often either breastfed or provided with store-bought discretionary foods soon after the meal.

> “One little girl sat in the toddler chair and when the food was placed in front of her she just looked at the bowl and did not attempt to eat, she pushed the spoon around a few times. Her mother sat with her for a short while and tried to feed her 2-3 spoonfuls which she ate but she became distracted and wanted to go off and play. Her mother tried to attract her attention back to the meal and called over an auntie who then tried to feed her. After a few more minutes the little girl was allowed to leave the table and play” (journal 6th March 2018)

> “One three-year-old is always put into the highchair to eat their meals. He starts at the toddler table with the other children but tends to want to go and play or try to bring toys to the table rather than eat. His mother ends up putting him in the highchair with his plate and telling him he has to eat his lunch” (journal 19th October 2016)

Caregivers reported that they did not discuss the benefits of eating or limiting certain foods with their children. Education on food was seen as the role of health and school staff and caregivers reported that children learnt that at school.

> “they learn about healthy food at school and the clinic, we don’t talk much about it” (community woman 3, focus group)

Caregivers did however describe that they restricted some sweet foods such as icy poles and juice and the rewarded good behaviour or eating of meals through food-based rewards or other incentives.

> “if I’m going to the shop I say you have to eat your lunch first and then we can go and get an icy pole” (mother 1, interview 3)
>
> “if they ate their dinner I let them do things they want to do like play the x-box or something” (mother 2, interview 3)
>
> “I let him get a lolly or pop-top [juice drink] from the shop if he’s been good” (mother 1, interview 3)

Food was also provided for emotional reasons. Caregivers reported that when a young child cried or was hurt, they would offer the breast as an initial response to calm the child and that lollies, juices and icy poles would be offered to older children. I observed this practice regularly at the childcare centre.

7.6.2 Responding to children’s demands for sweet foods

As discussed previously, caregivers reported that they were concerned about the amount of sweet foods eaten by children but had little control over the consumption of these foods by older children, who obtained these foods or money to purchase them, from others. Caregivers stated that they often did not purchase sweet foods specifically for young children but did purchase them for themselves. The caregivers reported that once seen, the child would demand these foods and understood that the consumption of these foods by adults made them desirable to and demanded by children.

> “they want it because the adults eat them” (community woman 3, focus group)
>
> “I don’t buy them for Shae, but I buy them for me. She sees me and asks for them, I might give her a little bit, but I try to hide them in my pocket. She knows and she pats at me and whinges to get some. She knows you got some, she pats my pockets and goes through my bags trying to get them- you have to watch all the time” (mother 3, interview 3)

Children also demanded these foods when at the store and caregivers reported a number of strategies to reduce the intake of discretionary foods by their children, however, were unable to implement these when their children's demands escalated into a tantrum. Rather than refusing a demand, caregivers would be more likely to avoid situations resulting in demands - for example making the child wait outside the store or negotiating a swap with the child. This was deemed easier with younger children but became more difficult as children became older.

> "I tell her she can have a juice instead of the icy pole" (mother 7, interview 2)
>
> "they scream and cry because they want lollies and sweet drinks. You just have to give it to them, sometimes you can get them to have a yoghurt or something… it's hard though, we just give them what they want to stop the crying" (mother 2, interview 4)
>
> "sometimes when he wants something I get it but I get something else too and he has to eat that first" (mother 1, interview 3)

7.7 The determinants of feeding practices

Figure 7.7 illustrates the factors that influence feeding decisions and practices of young children in the community as described by caregivers and the interplay of these factors. These factors are discussed in detail below.

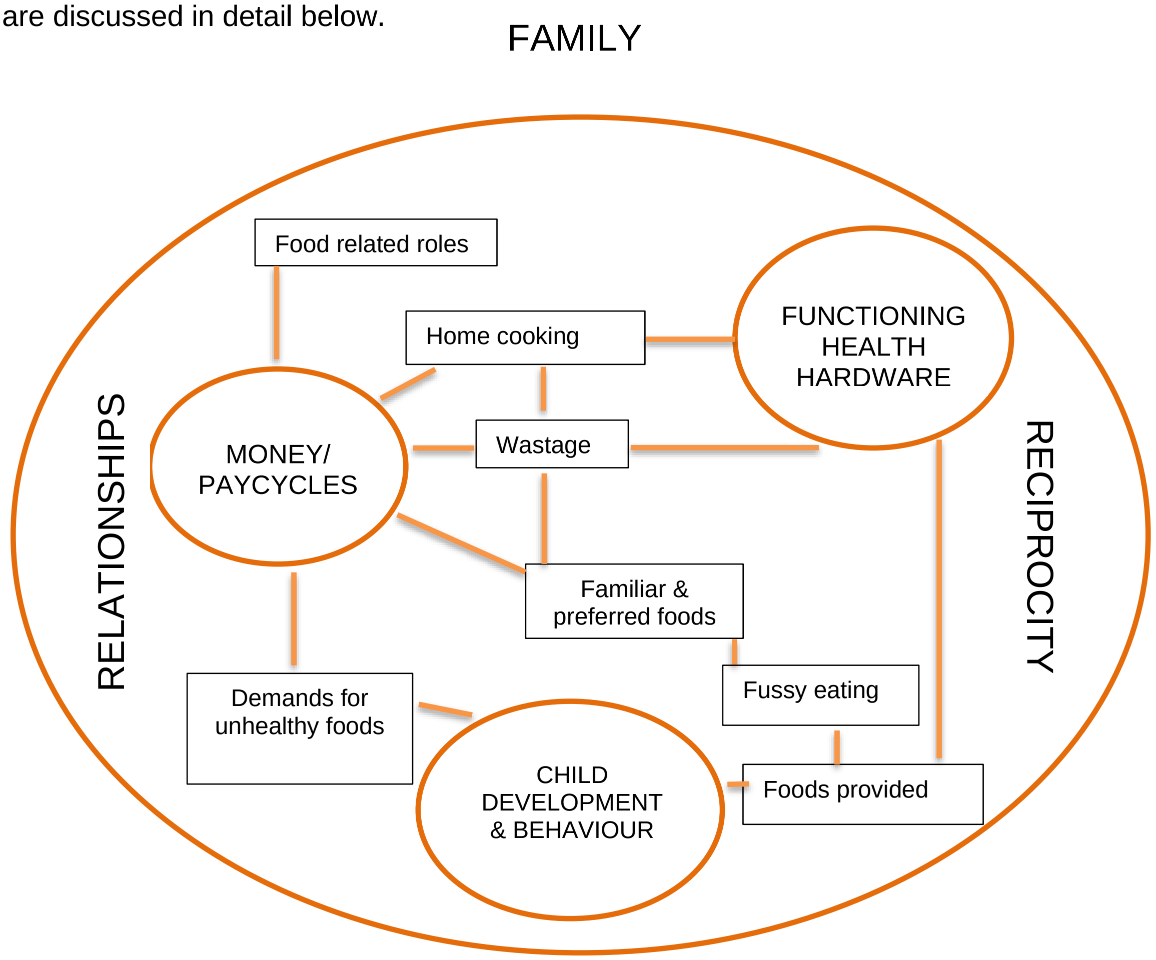


Figure 7.7 The determinants of child feeding practices

As previously discussed, the introduction and progression of foods is dependent on the child's achievement of developmental milestones and the eruption of teeth. Child behaviour, which is related to developmental progression, also influences the demands for sweet foods, autonomy in feeding, likelihood of fussy eating and how caregivers respond to these behaviours.

7.7.1 Pay cycles influence the types of foods purchased

As I discussed in section 7.2.1, shopping and cooking roles are shared amongst women in family groups, dependent on financial payments. Participants reported and women were observed to undertake a main grocery shop each fortnight, at which items such as breakfast cereals, flour, milk powder, rice, bread, snack foods such as biscuits and chips and a small amount of meat were purchased. Smaller purchases of foods continued on a daily basis, with caregivers attending the store across the day to purchase foods as desired. These items were often ready to eat foods, including microwaved foods, snacks and drinks.

Participants reported that takeaway food consumption was higher on the days after pay day and reduced as the pay period progressed. Caregivers reported that they were able to purchase desired foods such as meats at pay day, but these were unaffordable across the rest of the pay cycle. Foods deemed to be snack foods, such as yoghurts, cheese and fruit, were also reported to be affordable only on pay day and would not be purchased later in the pay cycle.

Caregivers also reported that they were able to select 'healthier' meal options for their children, such as bacon and egg sandwiches instead of pies or smaller snack foods, around pay day, but were unable to afford this at other times. Basic, filling foods such as bread, noodles and tinned spaghetti were reported as staple foods during the pay cycle, and when money was available caregivers reported adding foods such as eggs and bacon to boost the nutritional value of the meal. Whilst caregivers reported that they tried to swap demanded sweet foods for healthier options, this was also limited to payday.

> "she eats noodles and baked beans and that potato in the bag [when we have run out of money]" (mother 3, interview 3)
>
> "some foods like meat are really expensive to buy so you only get those after payday" (community woman 3, focus group)
>
> "it's harder when it's not pay week, we eat more damper or we share food with family" (mother 1, interview 2)

7.7.2 Money and health hardware determine the cooking of meals at home

The ability to purchase meat determined if meals were cooked at home, as meat was the key ingredient in home cooked meals. Whilst eggs and occasionally tuna were mentioned as additions to noodles and tinned spaghetti for children, family meals were reported as meat-based varieties such as stews and mince dishes.

> “sometimes I cook… after payday, that’s when we have some meat” (mother 3, interview 4)

As discussed in section 7.1.3, only one third of caregivers had access to a functioning fridge, and access to safe storage and preparation equipment was highly limited. Caregivers reported that their inability to safely store and prepare foods restricted the provision of home prepared meals to children. Poor quality fruits and vegetables were seen to further impact on this as caregivers reported that they could not afford to waste foods that would not be eaten. This led to the restriction of purchases to foods that were familiar to children and families, and therefore more likely to be eaten, and the preparation of foods immediately after purchase.

> “well at the moment the fridge is broken, it freezes all the fruits and vegetables, so I can’t buy much” (mother 6, interview 5)

> “I don’t have a fridge at home and there are cockroaches and mice, so I worry about the food (mother 1, interview 4)

7.7.3 Altered shopping practices

Caregivers complained of high food costs at the store, reported that the quality of fruits and vegetables was poor and that jarred baby foods and perishable items were frequently out of date. Whilst jars of baby food were reported as commonly consumed foods by young infants and a number of varieties were available in the local store, the store manager reported that sales of these items were low and they often had to remove stock that was out of date.

Caregivers reported that due to the history of out of date products, baby foods were purchased from Alice Springs and caregivers often requested families attending the town purchase these items for them. Three caregivers reported that they undertook most of their fortnightly shops either in Alice Springs or another nearby community, where a number of stores offered more competitive pricing, or subsidies on healthier food items. The store manager estimated that up to 50% of non-perishable goods were purchased outside of the community, with their sales reducing since the sealing of major roads near the community (personal correspondence, CG).

7.7.4 The importance of relationships and reciprocity

Relationships with family members and other community members were key influences on child feeding practices. In concordance with the caregiving roles of extended family members discussed in section 3.8, family members and peers were key sources of feeding information and advice and played a key role in daily feeding practices; as food, money, food preparation equipment and shopping and cooking duties were shared between family members, within and across households. This protected children from food insecurity, provided opportunities to enhance the nutritional adequacy of the diet and offered a number of role models who influenced children's eating behaviours.

The importance of relationships and the time spent fostering these relationships was evident in the social contact of caregivers and their children and the daily movement of people between houses, especially at mealtimes.

7.8 Chapter summary

In this chapter I reported on the child feeding practices at the time of weaning in a remote Aboriginal community. As discussed in sections 3.5 and 3.7, information on the dietary intakes of Aboriginal children around the time of weaning and the child feeding practices of Aboriginal caregivers is limited in current literature. As such, these findings provide significant new knowledge, in particular how and why practices occur, from the perspective of caregivers.

Community members and caregivers discussed the roles of caregivers in feeding. The mother was described to be the primary decision maker of feeding practices and undertook the main feeding role in early infancy in the study community. Her role however was highly supported by other caregivers who became increasingly involved in feeding children once the child had developmentally gained some autonomy from their mother and was beginning to eat a wider variety of foods. Grandmothers were reported to play a key role in providing advice and assisting with any feeding difficulties.

Breastfeeding was seen by caregivers as the most important food for young infants and was recognised as a major source of nutrition throughout early childhood. Caregivers described using developmental indicators, particularly the patterning of food timing to the eruption of teeth, as the key determinants of decisions regarding the introduction and progression of feeding. Breastmilk was deemed the most important food until the eruption of four teeth or once the child was beginning to walk. A limited variety of soft textured foods, mainly vegetables were offered until the achievement of these milestones. This was related to a fear of choking and a variety of foods and increase in textures occurred after the child had four teeth. These milestones were also a marker for the active involvement of other caregivers in feeding.

A range of determinants were reported to influence feeding decisions and the ability to implement preferred feeding practices. Interviews with participants highlighted the strong inter-connections and variability of determinants based on context and events occurring in the household or wider family group at the time. Money was described as a key determinant and the food related duties of a family were shared amongst women in extended family groups, dependent on access to money across the pay cycle. Relationships and reciprocity were also used to prevent food insecurity and provided access to foods such as bush foods as well as health hardware. Food choices were restricted by fears of wastage and the cost of foods, such as meats influenced whether or not meals were cooked at home. Timing of purchases across the pay cycle and reliance on other family members for money influenced the types of foods purchased, meal patterns and how caregiver's responded to children's demands for unhealthy foods.

Home cooking and types of foods consumed were also influenced by access to health hardware. Caregivers discussed how they were unable to store or prepare foods at home as they did not have access to a functioning fridge, pots and pans or knives and how pests contaminated dry foods. This led to more frequent attendance at the store and consumption of ready-made food options. Regular attendance at the store also increased opportunities for children to demand unhealthy food items.

The caregivers used of a number of, mainly covert strategies, to control the foods eaten by children and some rules were applied to the consumption of meals, but not snacks. Planned snacks were only purchased at the start of the pay cycle and the consumption of other discretionary snacks, which were purchased opportunistically and on demand, were not necessarily viewed in the same manner as meals. Children were reported by caregivers to know what foods are needed by their bodies and were therefore seen as able to instigate meal frequency. Whilst children were relatively autonomous in their eating as their skills developed, they were supervised by caregivers who provided little engagement with the child when eating but did employ feeding strategies to reduce access to sweet foods and to redirect children back to their eating tasks. I observed some coercive feeding practices for children who were sick, not growing well or were fussy eaters and caregivers described that these factors influenced their feeding practices. The application of feeding strategies by caregivers was however shaped by budget and self-efficacy in the management of children's behaviour.

8 FINDINGS TWO- HEALTH PROFESSIONAL PERSPECTIVES

In this chapter I present the health status and current feeding practices of young children in the community, and the determinants of these practices, from the perspective of non-Aboriginal health professionals working with the community. The data presented in this findings chapter represents the voice of the health professional participants. In order to present this voice, I have not adapted or altered the results or commented on their 'correctness'. In Chapter 9, I explore the degree of congruence of these perspectives with the caregivers' and determine how and if knowledge is shared and whether shared understandings are created, when health professionals and caregivers meet. I also analyse the factors influencing the sharing of nutrition related knowledge in the following chapter.

As discussed in Chapter 4, health services in government managed clinics in the remote communities of the NT are guided by a primary healthcare framework and cultural security guidelines. Nutrition activities are underpinned by the Healthy Under Five Kids Program (HU5K) and the NT DoH nutrition and physical activity strategic plan. In section 6.6.6, I outlined the characteristics of the health professionals participating in this study. In this chapter I describe the roles of the health professionals who are employed at the health clinic and report on the nutrition activities undertaken in their work. I then discuss how these health professionals modify their practices to suit what they deem is required in this community context.

In the literature review I highlighted that research has not adequately documented the day-to-day nutrition activities undertaken by health professionals in their work with Aboriginal communities in Australia, with most reports documenting specific nutrition interventions/programs. No reports have clearly documented the factors that inform the nutrition activities targeted to caregivers of young children, or the influences on what and how information is provided. This exploration of the nutrition education activities of health professionals, what informs practice and how practice is modified to the context of caregivers and communities, is novel yet is crucial in exploring how current nutritional services do or do not meet the needs of the community.

8.1 Health professional roles

As described in Chapter 4, RANs live in the community and operate the health service with support from visiting outreach staff. The clinic in the study community does not employ an Aboriginal Health Practitioner, however one CBW is employed. One RMP, PHN and CFHN visited the study community for approximately 3-5 days each month, whilst a paediatrician visited the community on a quarterly to biannual basis.

Apart from discipline specific training, only one health professional had undertaken formal training in child health and one had undertaken formal training in nutrition. Health professionals' reported that learning in these areas was usually undertaken on the job; through observations, experience and some informal training. Whilst early childhood nutrition training is provided to Aboriginal health staff, non-Aboriginal health professionals employed in Central Australia rarely undertake nutritional training as part of professional development.

The Aboriginal CBW employed at the clinic, as I discussed in the methods section, worked with me in this study as a cultural and community mentor, assisted in the implementation of the research and was the key member of the study reference group. The CBW is not an accredited health professional, but has undertaken significant training in health, particularly child health and nutrition. Her role in the clinic was to assist in culturally safe health service provision, however in practice her role varied depending on the expectations of the non-Aboriginal health professionals. She was often directed to undertake administration duties such as organising appointments and travel outside of the community, reminding clients about clinic appointments and medications and conveyance of information from clinic staff to community members. Occasionally the CBW was asked to assist with community-based health promotion activities and sometimes facilitated these, however based on my observations and discussions this was infrequent. As discussed in Chapter 7 however, caregivers did report the significant role of the CBW in sharing health knowledge and providing support for nutritional concerns for children, these activities were often undertaken outside of the hours of paid employment.

8.2 Perceived health and nutritional concerns for young children in the community

8.2.1 Anaemia and growth faltering were the main health concerns

Table 8.1 summarises the health concerns of young children that were identified by health professionals. Most (6) health professionals identified that anaemia and growth faltering were the main health concerns for young children. Two health professionals identified high rates of acute illnesses and infections as common concerns, these participants were responsible for the direct diagnosis and management of these conditions as part of their role. A number of health professionals identified increasing rates of obesity amongst children as of concern, however the origin of these issues was seen to occur at school age. The identified health issues were reported by health professionals as common concerns for all Central Australian communities and there were no specific concerns related to the study community.

Table 8.1 Health concerns for young children identified by health professionals

(n=7)

Health Concern	Frequency of response
Growth faltering	6
Anaemia	6
General illness and infections	2

8.2.2 A variety of feeding practices were seen as nutritional concerns

Health professionals related the health issues of children to a variety of feeding practices as illustrated in Table 8.2. The predominant nutritional concern voiced by health professionals was ‘poor’ food choices (5), which related to high consumption of foods of low nutritional quality, generally discretionary or energy dense/nutrient poor foods.

Other concerns were associated with the opinion that children did not eat enough food to meet their energy requirements/were not offered food with adequate frequency (5). ‘Poor’ feeding practices were frequently associated with perceived ‘poor’ caregiver feeding practices, with caregivers viewed as non-responsive to children’s nutritional needs and/or ‘giving in’ to children’s demands for unhealthy foods (3). Concerns were also related to breastfeeding and introduction of complementary food practices that did not align with the health professionals’ expectations.

The nutritional concerns of health professionals correlated with their perceptions of the dietary intakes of young children, which I report in section 8.3.

Table 8.2 Perceived nutritional concerns of young children living in the study community

(n=7)

Nutrition Issues	Frequency
Poor food choices	4
Inadequate food frequency	3
Poor caregiver feeding practices	3
Inadequate food volume	2
Delayed introduction to solids	2
Early introduction to solids	2
Poor progression of solids	2
Prolonged/excessive breastfeeding	2
Poor establishment of breastfeeding	1

8.3 Health professionals' knowledge of feeding practices in the community

8.3.1 Health professionals' confidence in their knowledge of actual feeding practices

Through the continued use of terms such as "I think", "you could assume" and "I guess", health professionals displayed a lack of confidence in their knowledge of actual feeding practices.

> "I am not sure what age parents start to introduce solids, but I lean towards they probably start them too late. It's hard to know what they are doing" (HP 5)

Health professionals often reflected throughout the interviews that they "didn't get to watch much" of the shopping or feeding practices, with observations limited to the clinic, generally around the community, and for a few, brief observations at the childcare centre.

> "I didn't see lots of what was given to kids, only what was given in childcare and the school, where food is provided" (HP 7)

Several of the assumed feeding practices tended to be generic to Central Australia or for Aboriginal families in general, rather than to the study community; with most knowledge gained from training, colleagues, experiences in other communities or from expected behaviours.

> "I think it's happening at an early age. Specifically, in [community], I couldn't be too sure, but with my experience with Indigenous families" (HP 5)
>
> "I'm not too sure for [community], but I assume it's similar to other communities I worked in" (HP 6)
>
> "The women's health and child health nurses are saying that there's more bottle feeding happening now because kids are left with others to care for them" (HP 6)

All health professionals reported receiving 'standard answers' from caregivers who were perceived to provide information that they expected the health professional wanted to hear.

> "a lot of the time that I ask mum's about infant and child nutrition I am getting very standard answers- that they are telling me what I want to hear" (HP 2)
>
> "I get told that kids are eating fruit, potato, mince, weetbix, porridge and occasionally sandwiches- ham and cheese, oh and bush meats, but I don't think that's what's actually eaten- they are more like learned responses they should tell you" (HP 6)

This led to a mistrust in the information provided, as it often did not correlate with the clinical health indicators used to assess health and nutritional status. Health professionals' reported that they had stopped asking caregivers questions about children's diets due to this mistrust, especially for caregivers who they perceived were difficult to engage.

> "they know what to say to me when they talk to me… some of them it's obvious because their iron is really good, so it's possible they are cooking what they have said, but I don't see that a lot" (HP 1)

One health professional acknowledged that there are limitations to the current dietary assessment tools used with Aboriginal clients, which may influence their use and perceived reliability by health professionals.

> "in the clinical setting the diet history is not an accurate assessment of intake, but you are able to target more individual issues" (HP)

As I discussed in section 3.5, the limitations of dietary assessment tools such as diet histories and 24-hour recalls have been widely documented in the literature (Naska, Lagiou & Lagiou 2017; Shim, Oh & Kim 2014), with further limitations noted for Aboriginal communities (Lee 1992; Lee, Smith & Bryce 1995), including specifically for Aboriginal caregivers (Leonard et al. 2017; Liberato et al. 2016; Rohit et al. 2018; Tonkin et al. 2018).

8.3.2 The perceived dietary intakes of young children in the community

Table 8.3 summarises the assumed feeding practices of young children in the study community. Health professionals reported that there were high rates of initiation of breastfeeding and that breastfeeding would continue for at least two years, often beyond the commencement of school. A number of health professionals were concerned that breastfeeding was used in place of the provision of foods for children, after their commencement, and therefore displaced adequate food volumes and feeding frequency.

Table 8.3 Young child feeding practices, as perceived by health professionals

Feeding Practice	Comments from Health Professionals
High rates of breastfeeding initiation and lengthy breastfeeding duration	High establishment breastfeeding May be undiagnosed early breastfeeding concerns that are not managed leading to growth faltering (1) Continues until at least 2 years of age
Breastfeeding after the introduction of solids seen to reduce feeding frequency and food volume consumed	High concern that frequent breastfeeding disrupts provision of adequate complementary foods Related to food insecurity and feeding to comfort child
Formula feeding	Is becoming more prevalent Bottles are used a lot to provide sweet drinks and tea
Introduction to solids	Health professionals reported lack of knowledge Incongruence between staff: Complementary foods introduced at 3-4 months of age (4) Complementary foods introduced after 8 months of age (3)
First foods provided	Health professionals were not confident in their knowledge Mistrust of ‘standard answers’ provided by caregivers which indicate weetbix and Porridge (3), mashed starchy vegetables (1) commonly provided cooked potato, sweet potato and pumpkin 3 reported that packaged foods were provided as first foods- commercial infant foods (1), discretionary foods (2)

Progression of solids	Health professionals lacked knowledge Incongruence between staff: Rapid progression to finger foods and self-feeding (1) Slow progression of textures (2) Wide variety of foods after six months (1) Only discretionary foods added to first foods (1) High intakes of discretionary foods and sweet drinks (4) Large consumption of cow's milk (1)
Feeding patterns	Infrequent and inconsistent meals (5) Initiated by child (3) Initiated by caregivers hunger/eating (2) 2-3 meals per day (2)
Feeding Environment	Health professionals lacked knowledge and confidence in knowledge Family meals outdoors (1) At store (1) Eat with adult who initiated meal (2) Eat when moving around (5) No rules/structures (5)
Feeding Responsibilities	Women (7) Mother (3) Grandmother (3) Large number of women who live with child (1) Men/father role minimal (2) Men/father role after 2-3 years of age (3) Men/father role after initiation of male child (1)
Feeding Structures	Lack knowledge and knowledge not always seen as relevant to role Minimal engagement from caregivers (2) Child is mostly autonomous (4) No concern/expectations about eating from caregivers (4) No restriction or promotion of food volume or type (4) Mothers coerce children to eat (1) Provide food or breastfeed for emotional reasons (3) Provide foods due to demands from children (3)
Fussy eating	Fussy eating is a concern for caregivers (5) Caregivers have approached health professionals for advice on fussy eating (4) Fussy eating is related to developmental delay (2) Fussy eating is related to unfamiliarity with healthy foods (1)

There was disagreement between health professionals as to the age at which complementary foods were introduced, with some (4) health professionals reporting early commencement at around 3-4 months of age, and others (3) reporting that complementary foods were introduced too late, at around eight months of age or beyond. Health professionals identified that they were not confident in their knowledge of the first foods provided or the progression of solids and stated that common answers from caregivers were weetbix and porridge (3), but the health professionals were not certain that this occurred in practice.

When describing children's dietary intakes, health professionals were mostly concerned about high intakes of discretionary foods, with some reporting these were introduced as first foods. All health professionals reported that young children's diets were abundant in foods such as icy poles, lollies, chocolate, sweet drinks, chips and pies. However, there was disagreement between health professionals as to the age of introduction and types of other foods consumed, with most reporting that they lacked knowledge of feeding practices after the initial introduction of complementary foods.

8.3.3 Perceived feeding environments and feeding practices

Health professionals lacked knowledge of feeding environments and the feeding practices of caregivers, with some reporting that this was outside of their scope of knowledge and expertise and was not relevant to their practice. A number of health professionals reflected that opportunities to observe these practices were limited.

> "I don't know, I'm not usually out, so I don't see… we kind of go from the house to clinic and then we leave again; you'll get some people who are sitting outside but not noticeably kids" (HP1)
>
> "that's something I don't have a lot of visibility of, I haven't seen inside many homes" (HP 2)
>
> "I don't know how mothers feed their infants; I wish I had observed more of it" (HP 7)

As a result, knowledge of the feeding environment and feeding practices was limited, based on assumptions and was inconsistent. In general, health professionals reported a lack of structure and rules around mealtimes and eating environments. There was assumed to be low engagement in feeding children as children were expected to be autonomous from a young age and caregivers were seen to 'give in' to children's demands for foods. Despite the autonomy of the child, health professionals reported that women had the main role in feeding decisions and practices, but there were varying opinions on the roles of the mother, grandmothers and other female caregivers.

> "I think it's the female mother figure who may or may not be mother- you know it may be aunt, grandmother or somebody whose standing in in that position but that's my impression that its them who makes that decision" (HP 2)

8.4 Perceived determinants of young children’s diets and feeding practices

All health professionals reported that they believed feeding young children in remote communities would be difficult due to a number of challenges which related to the Social Determinants of Health (SDoH). Knowledge of these determinants was gained through training, discussions with colleagues and community members and observation. However, opportunities to observe some determinants were limited, with only one health professional having entered a community member’s house and viewed the kitchen facilities available to families. Similarly, three health professionals had not attended the community store for professional or personal reasons and reported that opportunities to do so were limited by the stores opening hours, which coincided with clinic opening times. Only the PHNs had attended the store for professional reasons to assess foods available and/or to purchase foods for nutrition activities. Health professionals, including those living in the community, tended to purchase most of their own food in Alice Springs, with purchases in the store limited to emergency supplies.

I have presented the determinants impacting feeding practices, as described by health professionals visually in Figure 8.1and in detail in Table 8.4. I discuss these in depth in the following sections.

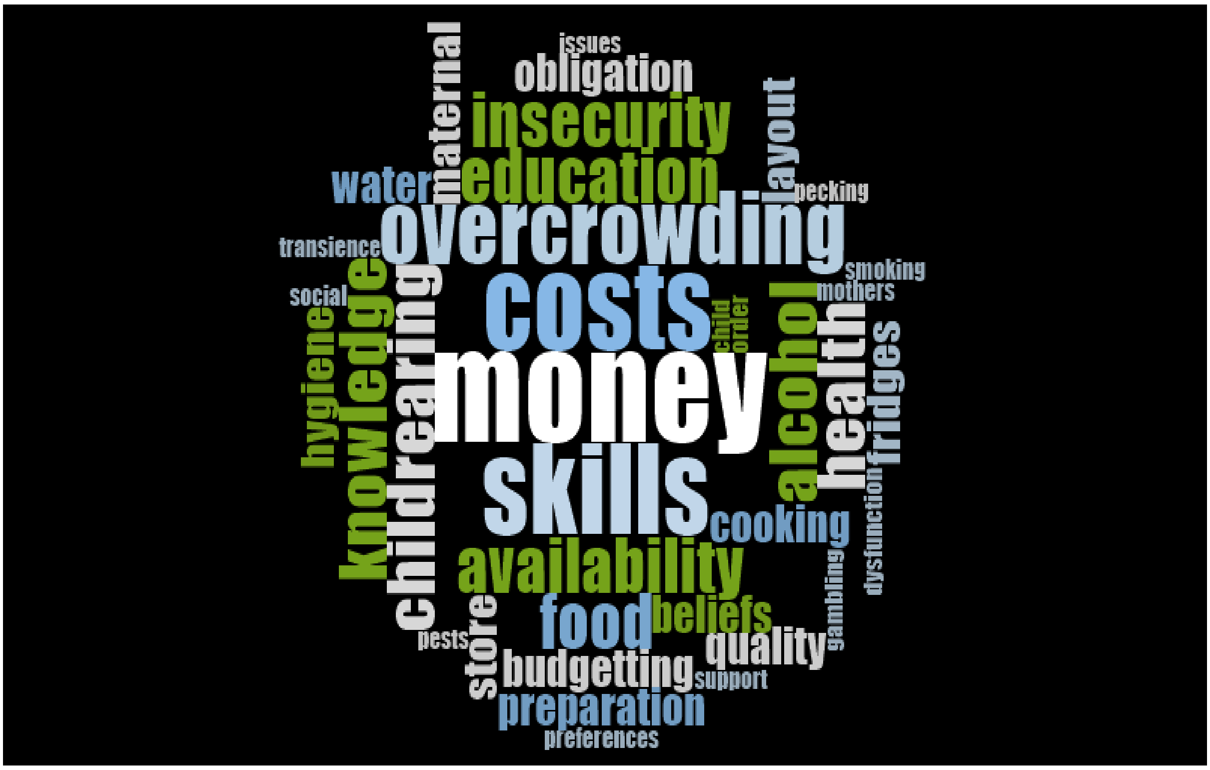


Figure 8.1 Word cloud depicting determinants of feeding as perceived by health professionals

The HU5K check prompts RANs and RMPs to ask caregivers a series of questions regarding the living circumstances of families, including the number of people living in the house, experiences of financial stress and domestic violence. The social history is also a component of standard medical, nursing and nutrition assessment tools and guidelines. My review of the medical records of children, whose caregivers were participating in the study, indicated that the social questions prompted at the standard HU5K checks were frequently incomplete and the social histories documented in other medical notes were missing or limited in detail. This indicated that health professionals were not asking questions about the context in which foods were obtained and consumed. The lack of prioritisation of the social context was also evident in the low numbers of health professional's reporting these factors as determinants of feeding practices as illustrated in Table 8.4. This is not unique to this study; auditing of the clinical records of almost 300 young children living in Aboriginal communities in the NT, Far West New South Wales and Western Australia by Bailie et al. (2008) also reported that inquiries into the social conditions of children (social support, families financial situation, housing conditions and food security) were only documented for 3-11% of children.

Table 8.4 Determinants of feeding practices identified by health professionals

Determinant	Sub theme	Number of health professionals identifying (n=7)
Community level access and availability of healthy foods	Discretionary food access Specialised options (e.g. diet drinks) Poor food quality Store layout and food promotions	6
Poverty	Overall limited finances Pay cycle Demand sharing/cultural obligation	5
Cultural factors	Cultural obligations/demand sharing Differing health/food beliefs Transience between houses and communities	4
Lack of nutrition knowledge and skills	Nutrition knowledge Child feeding knowledge Cooking skills Budgeting knowledge and skills	4
Non-functioning health hardware	Fridges Stoves Storage Preparation equipment	4
Overcrowded housing	Hygiene Feeding hierarchy	3

High cost of food	Fruit and vegetables Energy cost Pricing differential healthy-discretionary	3
Child rearing beliefs	Lack of control Disengaged/ nonresponsive parents	3
Social issues	Smoking Alcohol Gambling Domestic violence Mental health	2
Education and literacy	General education Caregiver knowledge- nutrition Caregiver knowledge- budgeting Lack of cooking skills	2
Child traits	Child's health status and appetite Taste preferences	2
Maternal health	Mental health General health Social supports	1

As illustrated by Figure 8.1 and Table 8.4, the main determinants on feeding, as perceived by health professionals related to low availability and high cost of healthy food, especially in an environment of low financial resources, as well as a lack of knowledge and infrastructure and perceived cultural impacts such as reciprocity and transience. Lack of money leads to food insecurity.

Most (5) health professionals identified poverty or a lack of money as leading to food insecurity, that inhibited families' ability to provide adequate amounts and/or high nutritional quality foods to their children. Whilst some health professionals reported a lack of money in general, often using the term poverty to define the financial impacts, the majority of health professionals reported that financial constraints were only experienced by families at the end of the pay cycle.

> "there are money worries and large families in small spaces, food doesn't last and nutritious foods tend to cost more" (HP 4)

The lack of finances was attributed by one health professional to the purchase of tobacco and alcohol and to gambling activities undertaken by family members, not necessarily the caregiver, but impacting on the family budget. Two other health professionals reported that food resources for individuals were reduced due to cultural practices, which were portrayed and voiced negatively as obligations and demand sharing. Two health professionals reported that caregivers had adequate finances but lacked the financial knowledge and budgeting skills required to ensure access to money and food across the pay cycle.

> "It's the obligation culture, so that's other family members coming in and eating whatever's there" (HP 1)
>
> "they need to know how to budget and make things go further, and feed the kids first" (HP 4)

High food costs, particularly in the context of financial stress, were reported by four health professionals as impacting on food security. Healthy foods, such as fruits and vegetables, were reported to be more expensive and one health professional acknowledged that most of these foods required adequate health hardware for their storage and preparation. One health professional reported that caregivers would be more likely to purchase cheaper, more filling alternatives.

> "the foods in the store are expensive and healthy foods are harder to store and need preparation and cooking" (HP 3)
>
> "I think it's probably related to cost mainly. I guess there are lots of foods like porridgy foods that are a lot cheaper to buy" (HP 7)
>
> "I think the shop has a lot to do with what's available [at home] and what's not. I mean having packets of chips $1 and an apple for $2" (HP 1)

8.4.1 Limited access to quality, healthy food options

Almost all health professionals reported that a lack of access to healthy food options, or excessive availability of unhealthy food options, were key determinants of child feeding practices.

> "I think anyone who's tried to stay [in that community] for any length of time, or any of the other communities, and tried to eat from the store, you get to realise pretty quickly how difficult it is to eat a pretty normal, balanced diet out there… I am very concerned about the amount of crap that's in that store" (HP 2)
>
> "the store is somewhat limited in healthy options, diet drinks and snacks for kids are not available" (HP 6)

Poor quality of fruits and vegetables were identified by two health professionals as factors likely to limit their purchase.

> “access to fresh and nutritious produce [is an issue] and then even if they do have access my experience of being in that shop is that it wasn’t a good food standard, it was partly mouldy, not edible” (HP 5)

The layout of the store and other strategies that promoted unhealthy food choices were highlighted as factors influencing food purchases by two health professionals.

> “there are displays of tempting foods… right at the counter” (HP 1)
>
> “different store managers tend to change what the front selling items are, placement of items at the front of the store and for example giving away free soft drinks” (HP 5)

8.4.2 Overcrowded houses and non-functioning health hardware

Overcrowded houses were reported by four health professionals to limit the availability of food and contribute to food insecurity. Houses were reported to have inadequate health hardware for food storage and preparation and food safety and hygiene were identified as concerns. Most health professionals identified a lack of fridges and stoves, however two, who had greater exposure to community members houses, also identified a lack of storage and preparation equipment.

> “I’ve seen a few kitchens and I can’t imagine a lot of cooking happening in those kitchens… Inside, if you see, a lot of the kitchens they don’t have a pot or they don’t have a working stove and there’s a film of grub on the hotplate. And you know, knives don’t last long so it’s not like you could cut up a potato” (HP 1)

8.4.3 Cultural beliefs

Four health professionals reported that in addition to SDoH factors, cultural beliefs of caregivers that differed to those of the health professional were key determinants of feeding practices. These factors were reported as problematic and unable to be addressed by health professionals.

> “I am not sure they even believe in iron deficiency anaemia; they might not see the symptoms; the kids still present with lots of energy. The whole belief system about these things might be different” (HP 7)
>
> “I think a lot of the standard dietary guidelines are just so far out of the experience of people there… I think they barely intersect” (HP 2)

8.4.4 Social Issues

The social interactions when eating were not discussed by health professionals, however problematic social issues such as domestic violence, gambling, smoking and consumption of alcohol were reported to influence food security. Some of these factors were also related to the health status of the mother, her access to social support and her ability to provide care to the child.

> “nearly every mother I know with a growth faltering child has a mental health issue, domestic violence, drugs, alcohol- not necessarily her, but her partner or family members that she has to deal with” (HP 2)

8.4.5 Child rearing practices

Two health professionals with specific child related roles, discussed that children’s traits such as their behaviour or health status could influence food intakes. This was related to whether or not the child would demand food (meal frequency or types of foods) from their caregivers. The child rearing strategies of caregivers were reported by four health professionals to negatively influence children’s nutritional status. Health professionals perceived that children were granted early autonomy and were required to initiate feeding opportunities with caregivers who were reported to undertake unresponsive parenting practices with inadequate engagement with feeding.

> “the parents will often say a child is too busy playing to come and eat, so that’s the parental idea of food, that children will ask when they are hungry, but children often don’t have that marker” (HP 1)

> “if a child does not demand food they may not get it…. Problem is a child may lose their hunger drive if they are hungry and food is not offered. After 1-2 years old they might grab food from others or seek it out, but they can’t do that before 1 or 2 years old” (HP 3)

Caregivers were also seen by some health professionals to be permissive and to lack control over the food choices of their children. This was related to cultural reasons, which prevented the caregiver from saying no to a child’s wants.

> “there seems to be a lot more giving into kids for their wants rather than supplying them with what they need. You don’t see them walking around with a mandarin, but you always see them walking around with a Coke and packets of chips” (HP 1)

> “parents say that they are unable to say no when the child wants something, it’s the same with any group of people, it is hard to say no but it might be worse with Indigenous families because I have heard they don’t like children to cry or be upset” (HP 3)

8.4.6 A lack of education and nutritional knowledge and skills

Two health professionals cited low general education and literacy levels of caregivers as key determinants of feeding practices. Education was seen to enhance not only nutrition knowledge and skills, but exposed caregivers to other practices.

> “other communities have higher engagement with education and higher education levels. I don’t know if the mothers have the skills and knowledge, some may have been away to boarding school, which not only increases their education but it exposes them to bigger places and different ways of doing things, different foods, etc” (HP 3)

Most health professionals reported that caregiver’s nutritional knowledge of healthy foods and/or appropriate feeding practices were limited or that caregivers lacked skills in cooking.

> “the young mothers don’t know what to feed their kids, they can rattle off what they should feed, a good diet, but they don’t know why they should give those foods” (HP 3)
>
> “kids are not learning cooking and food preparation skills” (HP 6)

8.5 Community based nutrition activities

As discussed in Chapter 4, community-based health promotion activities form a part of the expected primary healthcare approach of all health professionals employed by the NT DoH in remote communities and job descriptions of staff include working in collaborative partnerships, providing public health services based on community development models (Northern Territory Department of Health 2019a, 2019b).

None of the health professional participants who were currently working with the study community reported that they were undertaking community-based health promotion activities with caregivers of young children, or in early childhood settings. However, several expressed a desire to undertake these activities.

> “what I wanted to do was to focus on the community setting like the school, but the clients were referred so I would see them” (HP 7)

The lack of these activities was due to high demand for clinical services, resulting in a lack of capacity for health promotion activities. The need for some health professionals to address health and nutrition issues across the entire life course and the frequent closure of the early childhood centre in the community, which made access to families outside of the clinic more difficult, also impacted on provision of these activities. The CFHN who had previously worked in the community reported that she had undertaken some health education activities at the childcare centre in the community during her employment two years prior to the commencement of the study, whilst the previous PHN reported that she had not undertaken work with families of young children outside of the clinic setting due to the factors detailed above, however had undertaken significant community based work with the school and store.

Outreach health professionals reported that they had, or were undertaking, community-based nutrition activities with families of young children in other communities they serviced. These were predominantly education sessions in early years community facilities, including staff training, and reviews of menus and nutrition policies in these settings. Work was also undertaken with store managers to develop nutrition policies and on strategies to promote healthy food purchasing. Most of the work undertaken outside of the clinic was planned with non-Aboriginal community staff, with training activities offered to Aboriginal community members working at the community facilities.

Two health professionals highlighted the need to engage with the community in planning health promotion activities, however generally health professionals reported that in practice, health promotion activities were informed by the use of health data from referrals, reports and information from other health professionals. None of the health professionals reported consulting with or using the CBW to plan or facilitate health promotion activities. Some health promotion activities were defined by the projects of other team members and health professionals reported that they continued the activities commenced by their predecessors or worked in settings in which their predecessors had established rapport.

> "I guess I came to realise in time that even though I guess we have a role to do and we are quite passionate about that we might presume other people are interested in that or concerned about what we are concerned about. Because I mean, you learn about growth faltering and you think oh my god, I mean that's terrible, people must want to do something about this. But sometimes you get out there and there's actually so much else going on and it's not necessarily on their radar" (HP 7)

8.6 Clinic based nutrition education

8.6.1 When is nutrition education provided and to whom?

All staff reported providing nutrition education/information to caregivers in the clinical setting, usually at the instigation of the health professional and in conjunction with HU5K checks, or opportunistically to provide specific advice to address a diagnosed health issue. Nursing and medical staff reported that the education they provided was guided by prompts built into the HU5K check.

> “it was very built into standard questioning… just the care plan itself from a child health point of view” (HP)

Whilst a key focus of the HU5K check is anticipatory guidance, health professionals reported that in practice, the provision of anticipatory guidance in the clinic setting was limited, and the provision of information was focused on health issues that arose during the screening.

> “the focus of information provision is in the clinic, once children are diagnosed with a problem. I wanted to target pregnant women and adolescents, before they became pregnant, but they are a hard group to target” (HP 7)

Paediatricians, PHNs and CFHNs also reported that their clinical work was founded on referrals for children who had been diagnosed with specific health and nutrition concerns or children who were identified with health concerns in data reports. Any anticipatory guidance was limited to community-based settings, when health professionals had access and capacity to work in these settings. Whilst regular nutrition education activities were reported by health professionals, some felt that nutrition education was lacking, and various health professionals stated that they did not have adequate nutritional knowledge to support the provision of nutrition education.

> “there are more short-term staff. They probably don’t give as much information, it’s not as important to them, they wouldn’t know the resources or the complications” (HP)
>
> “if the RANs don’t understand the importance of the information it isn’t given. They just give treatment and maybe a vague message like give foods rich in iron. You don’t see any resources anywhere in the clinics, even when good ones like the strong blood foods are available. I am surprised that even some of the nurses with qualifications in child health have no knowledge of many of the health concerns and current feeding recommendations” (HP)

8.6.2 What nutrition information is provided?

I have summarised the main nutrition messages provided by health professionals in Table 8.5 The nutrition messages commonly provided by health professionals were to breastfeed young infants, introduce complementary foods at around six months of age, provide three meals per day with snacks, eat healthy foods such as vegetables and bush foods and reduce the amount of sweet drinks consumed. As discussed in the following section, these were standard messages with minimal adaptation to individual’s practices or determinants.

Table 8.5 Nutrition information provided by health professionals

Key health message	Information provided
Breastfeeding	Generally encouraged for younger babies Some health professionals uncomfortable discussing breastfeeding after the commencement of solids Health professionals lacked confidence and felt uneasy in providing advice to support mothers to cease breastfeeding of older toddlers
Intro to solids	Introduce solids at 5-6 months of age Varied information on type of foods to offer and how to offer Recommend mashed vegetables, iron fortified infant cereals, fruit, Some health professionals recommend introducing weetbix and/or meats
Progression of solids	Minimal information was provided for progression of solids
General healthy eating advice	Meal frequency, 3 meals per day and snacks Healthy snacks Teaspoons of sugar in drinks, swap to water Eat bush foods Eat more vegetables
Anaemia	Eat iron rich foods- meats and bush meats
Growth faltering	Eat regular meals and snacks Choose healthy foods, PHNs extended this to high protein, high energy foods Explanation of growth charts by health professionals once children referred for specialist advice

8.6.2.1 Breastfeeding information and advice

Whilst breastfeeding was universally recommended for younger infants, prior to the introduction of complementary foods, four health professionals indicated discomfort with the promotion of breastfeeding in later infancy and toddlerhood, as breastfeeding practices by mothers of older children were seen to displace the intake of foods, leading to nutritional and growth deficiencies.

> “[I tell caregivers] breastfeeding is excellent for young babies but it’s not enough now, they need to reduce the milk and offer more food” (HP 3)

> “I encourage it [breastfeeding] up to six months of and then whatever, I don’t actually talk about breastfeeding from 6-18 months and then at 18 months I start saying, hey look it’s a comfort now and you need to look at stopping” (HP 1)

Some health professionals actively discouraged breastfeeding in later infancy, from around eighteen months- two years of age, whilst others reported that mothers had asked for advice in weaning their child, but they lacked the skills and knowledge in how to support this.

> "often I will talk about the breastfeeding, if they are still breastfeeding, explaining that they can't, or you know, why it's no longer needed.. I bring that in at about 1 ½ … it's just watered-down milk now and it's just sucking from mum and not giving anything to babe" (HP 1)

> "it's very tricky and most of the time when I was dealing with older families this came up, more commonly than I would have thought. The mothers were ready to wean and the child was not and they didn't know how to wean and they sort of couldn't take charge of the situation, so they would say to me that they just didn't want to breastfeed anymore" (HP 5)

8.6.2.2 Advice on the introduction and progression of complementary foods

Health professionals recommended introducing complementary foods at around five to six months of age, with one health professional reporting that she provided education to caregivers based on the developmental signs of readiness. Apart from checking whether infants had commenced complementary foods, health professionals usually did not provide guidance on the types of foods to provide, how to feed infants or how to address common feeding concerns. Information that was provided on food types varied significantly amongst health professionals and foods low in iron, such as vegetables, were often recommended as first foods.

Discussions regarding the progression of complementary feeding were rarely undertaken in the clinical setting. One health professional reported that she advised caregivers to introduce a variety of foods over the first year of life and two health professionals routinely recommended the progression of textures to include finger foods. When infants were diagnosed with anaemia, caregivers were advised to provide iron rich foods, such as meats and bush meats.

8.6.2.3 Advice on toddler diets

General healthy eating advice focused on the provision of regular meals, with most health professionals recommending children consume three meals and two snacks per day. Some health professionals provided advice on healthier snack choices, although this was more frequent when children were diagnosed with growth faltering. Caregivers were also reportedly encouraged to include vegetables in meals and to provide bush meats. The provision of meats, including bush meats, was particularly encouraged if children were diagnosed with anaemia.

Some health professionals advised parents not to provide sweet drinks to young children and encouraged consumption of water.

8.6.3 What informs the information provided by health professionals

As illustrated in Table 8.6, information provided by health professionals was based on commonly used resources, personal experiences and the information gained from colleagues and mentors. Resources most commonly used to guide the provision of information were the pictorial resources: “good food for strong blood”, “healthy snacks” and “number of teaspoons of sugar in drinks”, with some health professionals also reporting that they used cookbooks and pictorial resources from other communities. Two health professionals reported that the Infant Feeding Guidelines informed their practice, they also reported using the Eat for Health/Australian Dietary Guidelines to guide their practice or the provision of nutritional education.

Table 8.6 Foundations of nutrition information provided by health professionals

Guiding Source of Information	Number of Health Professionals Reporting (n=7)
Commonly used resources	4
Personal experience	3
Other colleagues/mentors	3
Evidence based guidelines	
- Infant feeding guidelines	2
- Eat for health/dietary guidelines	2
Reading/own research	2

8.6.4 Modification of nutrition information to context and client needs

Health professionals discussed modifying information to suit the context and perceived needs of individuals, however this was predominantly limited to modification of the presentation of the information, as opposed to the content, and health professionals reported that they had inadequate knowledge or skills to facilitate modifications to suit individual practices and context. All health professionals reported using visual aids, simplification of language and concepts, and limiting the amount of information provided to caregivers to ensure that information was clear, easily understood and did not overwhelm caregivers

> "I use visual aids; they are easier than describing and I simplify the concepts and use analogies" (HP 6)
>
> "I only give 1-2 pieces of information, like cut back sweet drinks, or swap x to y" (HP 3)

Inadequate access to suitable visual resources was highlighted as a barrier to education by three health professionals, with one describing that the visual resources lacked information on why certain foods were recommended, or the related health issue was a concern.

> "there are lots of resources for anaemia, but not enough for growth faltering. The resources show the foods, but there is nothing to explain why" (HP 7)

Health professionals also sought locally developed resources that included images of local bush foods and local people.

> "you really do have to use locally developed resources for them to be meaningful at all… I could do with more, I've got a few that I carry with me and photocopy and things like that, but especially if they were targeted with the local group, a bit like with the (X community) cookbook, I think that would have a whole lot of meaning" (HP 2)

Health professionals felt limited in their ability to address several of the determinants that they believed influenced children's dietary intakes and the feeding practices of caregivers. Whilst some health professionals reported adapting the advice provided to ensure it was consistent with foods available in the community and promoted foods that were more affordable and could be easily stored; the ability to provide this advice was limited by a lack of knowledge of the foods available and cost at the local store. Some health professionals therefore applied general knowledge of available foods in other communities or from training.

> "I highlight it doesn't need to be expensive and provide cheaper alternatives for things like meat" (HP 4)
>
> "[I advise] generally what is available and affordable in the communities, I don't know what's in that community specifically" (HP 5)

8.6.5 Confidence of health professionals in the information provided

All health professionals lacked confidence that the information they provided to caregivers was able to be applied or met the needs of the caregiver and their family. For two health professionals' this was related to a lack of confidence in the accuracy of their knowledge but generally it was associated with an awareness that the information provided did not address the determinants of feeding practices; and/or, for two health professionals, opposed the culturally associated health and feeding beliefs of caregivers.

> "I am confident some families put it into practice, but others had more issues than what I could provide support for" (HP 5)
>
> "there is a gap between the information provided and the information being used. Maybe this is because of cultural factors" (HP 7)

8.7 Chapter summary

In this chapter, I have described the perceived dietary intakes and caregiver feeding practices of young children in a remote Aboriginal community, around the time of weaning; from the perspective of a variety of non-Aboriginal health professionals who had previously, or at the time of the study, worked with caregivers in the study community. I have also described the nutrition activities undertaken by health professionals and the factors that they reported informed and influenced the provision of these activities. As I discussed in section 4.6, the daily activities of health professionals are rarely documented, with most literature describing specific nutrition interventions or projects. The voice of health professionals in describing what informs and influences their work is also missing from the literature but provides important considerations in service planning and evaluation.

Health professionals reported that growth faltering and anaemia were the main health concerns experienced by young children in the study community, with some health professionals also reporting high rates of acute illnesses and infections. Obesity and early onset chronic disease were also reported as of concern, but their incidence was experienced later in childhood. These health issues were perceived as common to all Central Australian communities and were not specific to the study community. They mirror the view of health and nutrition concerns presented in the literature, which I discussed in Chapters 2 and 3.

The main nutritional concerns identified by health professionals correlated with their knowledge of the dietary intakes of young children. Health professionals however were not confident in their knowledge of feeding practices due to a lack of opportunity to observe young children eating. This was related to the demand for clinic-based service provision. Further, health professionals mistrusted the information provided by caregivers, as they assessed the information as incongruent to the clinical information they used to inform their assessment of the child's health and nutritional status.

Observations of child feeding were limited to generally around the community and occasionally at institutional settings, there were no observations of the family food environment at homes. This may have skewed the perceptions of children's usual dietary intakes and the contexts in which foods are provided and likely adds to the mistrust and deficit views of dietary practices. In general, health professionals reported low knowledge of food related practices, such as the timing and types of foods offered to infants around the time of weaning. Health professionals did not actively seek to gain this knowledge but relied on general and assumed knowledge, which was seen as applicable to all caregivers, especially if the presumed context was viewed as similar.

Knowledge of the feeding environments and caregiver feeding strategies was low, with some health professionals reporting that this was outside of their scope of practice or not relevant. Knowledge of feeding practices was often anecdotal and child rearing beliefs and practices were generalised and often described as impacting negatively on the nutritional intakes of young children.

A range of determinants, related to the SDoH, were reported as significant influences on caregiver feeding decisions and practices and were often seen as barriers to caregivers implementing the recommendations provided by health professionals. These related predominantly to what was termed 'poverty'- a lack of money, poor food access and inadequate health hardware. Low education and health literacy levels and a lack of nutritional knowledge and skills were also reported as key determinants by half of the health professionals. Cultural factors and child rearing practices, related to cultural norms, were also commonly reported as negatively influencing children's diets and caregiver feeding practices.

All health professionals provided nutrition education in the clinic setting to address recently diagnosed health or nutrition concerns. Nutrition education focused on what and when to feed children and was guided by health professional's own experiences with feeding children, as well as information in standard resources. Health professionals described how they modified nutrition education to suit the perceived 'lower' education and literacy levels of Aboriginal caregivers, through the use of visual aids, reduced number of messages, simplified language and analogies. This simplification of messages by health professionals in an attempt to overcome communication barriers has been documented in other literature (Cass et al. 2002; Lowell et al. 2012).

Whilst the SDoH were seen as key influences on feeding practices, health professionals reported that they were unable to address these determinants and many lacked knowledge of the local food and household environment, which they described as inhibiting their ability to provide advice in this area. Some health professionals reported that they did not ask caregivers about their social situation, even when prompted by care plans, as they were unable to assist with any arising concerns or saw the SDoH as outside of their scope of practice. As a result, health professionals were not confident that the information they provided to caregivers was able to be applied or met the needs of the caregiver.

9 FINDINGS THREE- THE CULTURAL INTERFACE

The space in which Aboriginal caregivers and non-Aboriginal health professionals meet to interact and share knowledge can be described as the cultural interface. This space is not limited to physical interactions between caregivers and health professionals but extends to include the ways that the wider health system shapes healthcare interactions. In this chapter, I analyse the effectiveness of the sharing of knowledge and creation of shared meanings and understandings at the cultural interface by exploring whether the health professionals' perceptions of child feeding practices and determinants (outlined in Chapter 8) aligned with feeding practices and determinants as they were expressed by Aboriginal caregivers (outlined in Chapter 7). I report on findings gained from health professional interviews that describe how health professionals obtain knowledge of child feeding and the factors that they reported informed their sharing of knowledge with caregivers. This chapter then extends the findings presented in Chapters 7 and 8 by using critical social theory and postcolonial theory to guide recognition and comprehension of the influences on the sharing of knowledge and creation of shared understandings at the cultural interface.

The cultural interface was defined by Nakata (1997), as the space in which cultures, with differing understandings (ontologically, politically, socially) and experiences, meet to exchange knowledge. I discussed this concept and its related theory in detail in section 5.6 and depict the shared space of the cultural interface, as applied to this thesis and described in this chapter, in Figure 9.1.

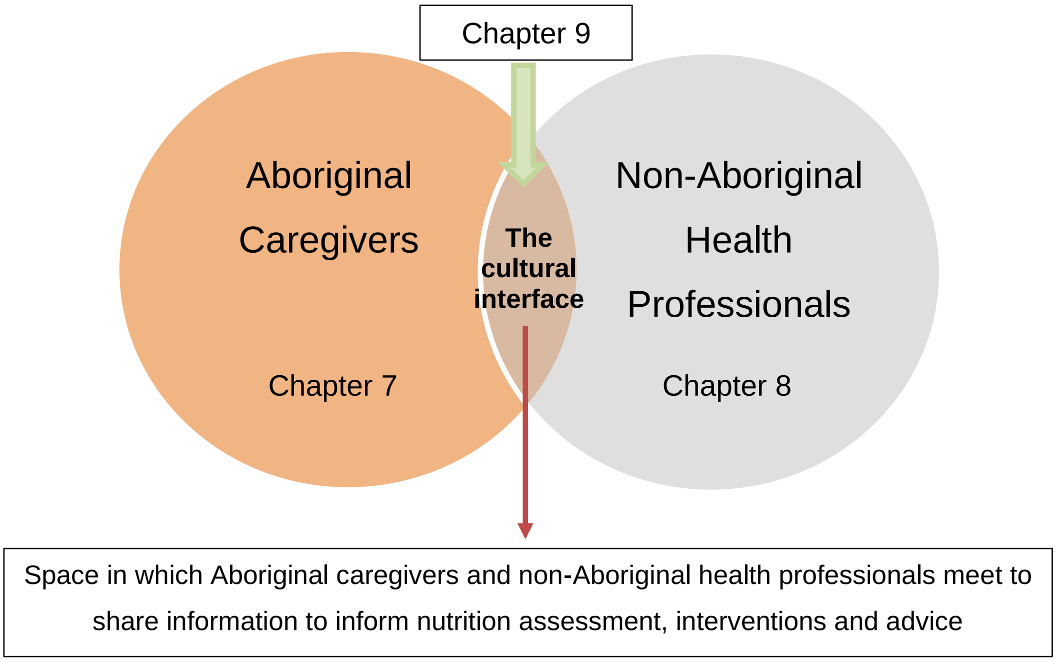


Figure 9.1 The cultural interface of early childhood nutrition

Effective communication is required in the sharing of knowledge so that health professionals can identify and respond to the priorities of caregivers and understand and adapt their practices to suit the context and determinants of feeding practices. As I reported in Chapter 4, Aboriginal peoples have described that miscommunication, the failure to adapt programs to suit local and cultural needs and the dominance of Western views, act as barriers to healthcare access (Cass et al. 2002; Marrone 2007; McBain-Rigg & Veitch 2011). It is therefore important to analyse whether the interactions between health professionals and caregivers promoted effective communication and if the actions of health professionals were adapted to caregivers' needs. In order to address any arising concerns, it is also imperative that the factors influencing the interactions and sharing of knowledge between health professionals and caregivers at the cultural interface are understood, so that actions can be undertaken to enable effective interactions that meet the needs of caregivers.

In Chapters 7 and 8, I presented my findings from interviews with Aboriginal caregivers and non-Aboriginal health professionals to give voice to each group when describing their practices and experiences. In this chapter, I analyse the sharing of knowledge and creation of mutual understandings, by comparing these findings. In line with cultural interface theory I did not undertake a binary critique of the 'correctness' of the approach of either group, as that was not the intent of this research and can lead to Othering and the privileging of views which often disempower the marginalised group (Nakata 2010). Instead, in line with the recommendations of other researchers, I reflected on areas of sameness and difference to understand the sharing of knowledge and the development of shared meanings and understandings (Nakata 2010). I critically analysed the interactions of the groups, using critical social theory, to determine the impact of the wider socio-political-environmental context and the resulting distribution of power on the sharing and assumed validity and importance of knowledge. I also used postcolonial theory to critique the past and contemporary influences of colonisation on the context in which feeding occurs and the interactions between caregivers and health professionals.

9.1 Health professionals' knowledge of caregiver feeding practices

Table 9.1 summarises the reported feeding practices of caregivers' and health professionals' perceptions of these practices reported in sections 7.5 and 8.3.2. This summary demonstrates that health professionals are knowledgeable about the early breastfeeding practices of caregivers but are not aware of many mothers' intention to cease breastfeeding children after two years of age. Whilst some health professionals reported that mothers had sought their assistance in weaning older children from the breast, activities to support this were generally not provided by health professionals who instead focused on other activities, despite commonly reported concerns from health professionals that breastfeeding displaced the adequate intake of complementary foods in later infancy and was therefore associated with increased risk of growth faltering and anaemia.

Table 9.1 Caregiver feeding practices and health professionals' knowledge of these practices

Feeding Practice	Caregivers' perspectives	Health professionals' perspectives
Breastfeeding	High initiation Ideally should continue until 12- 24 months but in practice continues up to preschool age Would like assistance with weaning after 2 years of age	High initiation Continues to 2 years and often up to preschool age
Introduction to complementary foods	Average age 4-5 months One child commenced at 8 months Based on developmental milestones	3-4 months (5 health professionals) > 8 months (3 health professionals)
Progression complementary foods	Breastmilk most important food until 4 teeth or 12 months of age Determined by eruption of teeth and developmental milestones Tinned spaghetti and egg after 2 teeth Soft meats and breads after 4 teeth Soft discretionary foods if not choking risk Discretionary foods not necessarily seen as food or snack	Unsure High discretionary foods
Meal frequency	One meal per day until 4 teeth Child determines but often based on caregiver meal Planned snacks only when money available	Infrequent meals based on caregiver having food 2-3 times per day
Feeding environment	Eats with caregiver(s) Sit to eat meals No rules for discretionary foods or snacks	Unsure Move around to eat No rules or structure
Feeding strategies	Mother holds main responsibility for feeding decisions of younger infants (until 4 teeth) Grandmother provides advice and support Other women determine foods based on pay-cycle across family Caregivers determine what is provided for younger children, increasing autonomy based on developmental milestones Caregivers determine where food eaten Caregivers supervise and monitor meals Coercion likely when concerns about child's intake Strategies applied to manage demands but caregivers are wanting assistance and these are limited by pay-cycle Food is provided as rewards and for emotional reasons Fussy eating is a common concern	Unsure Mother and grandmother are mainly responsible for feeding decisions Child is autonomous in determining when, what and where to eat Caregiver does not promote/restrict or monitor eating Caregiver has little engagement with child when eating Child is breastfed for emotional reasons Child is provided with foods based on demands Fussy eating is a common concern

Health professionals identified that they were not confident in their knowledge of feeding practices, particularly during the weaning period. This was evident in the inconsistency in responses of individual health professionals, particularly with regard to the reported practices for the age of commencement of complementary foods and meal frequency. Health professionals stated that they had little knowledge of the feeding environment and feeding strategies of caregivers; these and the types of foods provided to children were often reported as deficits. This data indicates that knowledge sharing, and the generation of shared understandings is currently impaired at the cultural interface. This is compounded further by health professionals' inability to observe the feeding of children in the home/community setting.

9.2 The determinants of child feeding as perceived by caregivers and health professionals

Table 9.2 illustrates the determinants of young children's dietary intakes and caregiver feeding practices as described by caregivers and health professionals. This demonstrates that there is shared understanding that the SDoH impact on the types of foods consumed and how these are provided, with access to money and functioning health hardware identified as key determinants by both caregivers and health professionals. However, on deeper analysis, and as evident in the subthemes relating to the determinants summarised in Table 9.2; the health professionals did not appear to understand the context of these determinants and how they played out in daily life at the child and household level.

Health professionals focused on a lack of caregiver skills (in cooking and budgeting) and nutritional knowledge, in addition to cultural factors, as shaping caregiver decisions and practices. Similar to the discussion above, this indicates concerns with knowledge sharing and the development of shared understandings. The focus of health professionals on caregivers' lack of knowledge as a key determinant directed focus to the provision of activities that enhanced knowledge and deferred action on the determinants reported by caregivers, particularly when health professionals viewed the other determinants as outside of their scope of practice or realm of influence. The application of this to practice is evident in the reported activities of health professionals generally, as described in section 4.6. This illustrates that most nutrition activities undertaken by health professionals centre around the provision of advice, which fails to address the determinants of feeding highlighted as most important by caregivers.

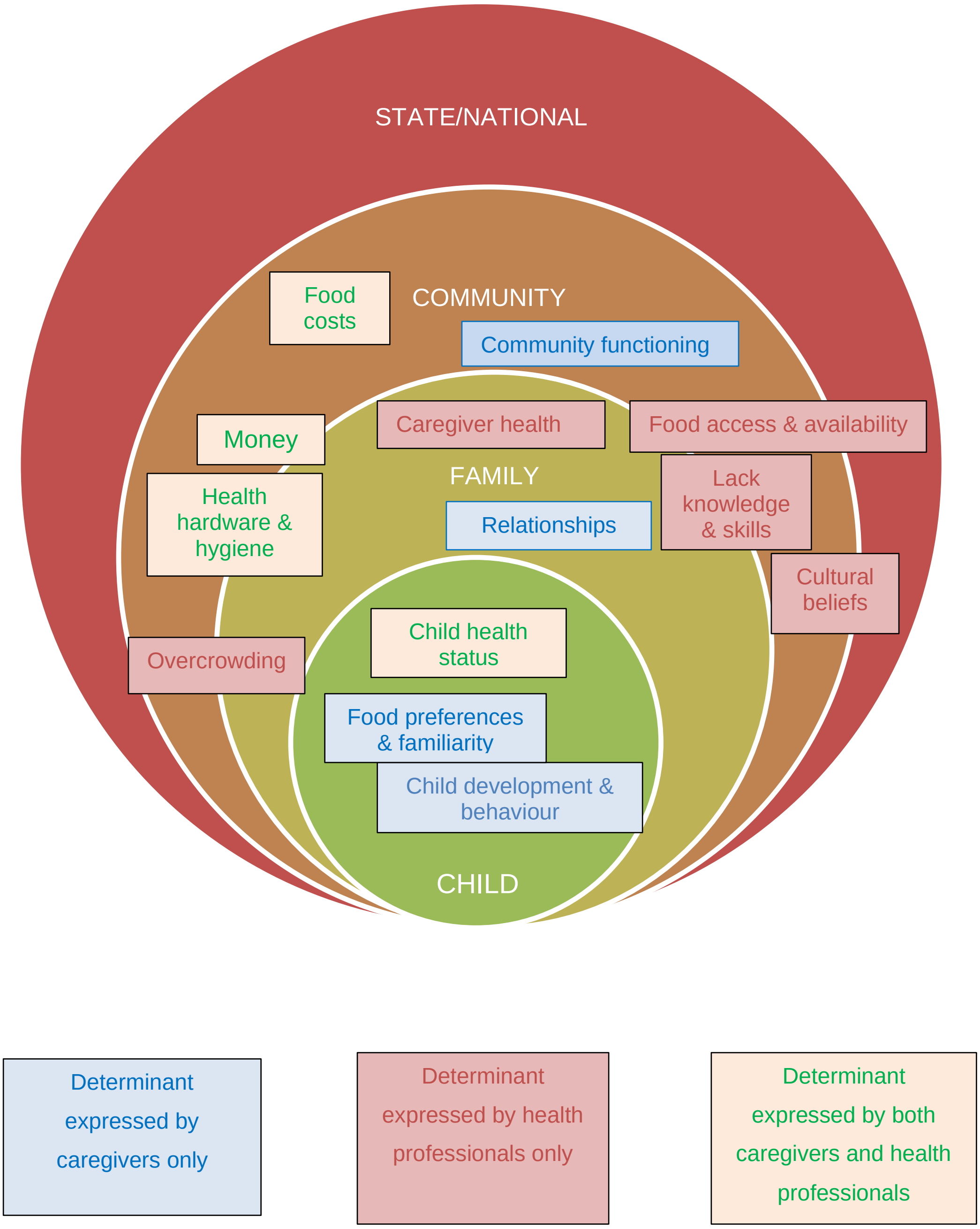


Figure 9.2 The determinants of child feeding- caregivers and health professionals

Table 9.2 The determinants of feeding practices: caregivers and health professionals

Determinant	Community	Health Professional
Access to money	Family reciprocity is protective against food insecurity Dependent on pay cycle Influences food roles in extended family Influences what is purchased (meats and foods of poor quality not purchased) Influences ability to include more nutritious options Influences ability to modify demands to nutritious options Fear of wastage leads to purchase of familiar and preferred foods Influences home cooking (through purchase of meats)	'Obligation culture' is a cause of food insecurity Overall poverty and pay cycle influence Influences what purchased (select energy dense, filling foods) Money access is further limited by smoking, alcohol consumption and gambling
Health hardware and hygiene	Non-functioning fridges and stoves Lack of safe storage Lack of preparation equipment Pests and hygiene concerns Leads to lack of cooking	Non-functioning fridges and stoves Lack of equipment for storage and equipment (1) Poor hygiene
Overcrowding	Stronger relationships and reciprocity protect against food security Caregivers may move back into larger home for additional support in times of financial stress	Places greater stress on financial and other resources Child may be further down feeding hierarchy
Food access, quality and cost	High food costs- reduce purchasing of meats Poor food quality- reduce purchasing of fruit, vegetables, dairy and baby foods Non-perishable, main shop now undertaken in Alice Springs or other communities if access to car	High food costs, especially healthier items Low food quality, especially healthier items Too many discretionary foods available Limited specialised healthy foods available Store layout promotes discretionary purchases
Child development	Attainment of developmental milestones guides introduction to complementary foods and feeding autonomy Eruption of teeth guides progression of complementary foods- variety, texture, eating frequency	One health professional reported using developmental milestones to guide introduction to complementary foods- usually age related

Determinant	Community	Health Professional
Child behaviour	Child demands for sweet foods are a common concern Ability to influence foods provided on demand are determined by access to money Fussy eating is a common concern- leads to purchase of familiar and preferred foods- linked to fear of wastage in context of low finance	
Lack knowledge, skills, low education and literacy levels		Caregivers lack nutrition knowledge, cooking and financial management skills
Poor health status	Caregivers may apply coercive feeding practices in response to child illness and poor weight gain	Poor maternal physical and mental health limits capacity to purchase and provide healthier foods
Cultural factors	Family and community support and reciprocity are key factors in food security and feeding knowledge/ practices Community functioning impacts on children's health and on relationships	'Cultural obligations' are seen to contribute to food insecurity Lack of application of knowledge provided is related to different cultural beliefs in conjunction with other determinants Transience between houses and communities is seen to reduce health service access and compliance to health and nutrition interventions Child rearing beliefs and practices are viewed as contributing to nutritional inadequacies

The perceptions of caregivers and health professionals relating to the SDoH may be associated with their positioning and view of the determinants. Caregivers' determinants were located at the child, family/household and community level and were often related to social factors and responsiveness to everyday life experiences. Caregiver responses to the SDoH indicated that they were looking inwards at how these determinants impacted on their own experiences and that of their children and family. By doing so, caregivers were able to determine strategies to manage the impact of the determinants on daily life- for example reciprocity acted to provide more consistent access to money and resources and ensured the maintenance of support networks; whilst shopping was undertaken outside of the community in order to extend resources.

Health professionals however are situated in health services at the community and state/territory level. The determinants as perceived by health professionals were located at the community level and were assumed to apply at the family/household level; they were predominantly economic and material factors, along with education, and their origins were seen at outer policy levels. This view aligns with the original concept of the SDoH as I discussed in Chapter 2 and ignores the multiple dimensions of Aboriginal notions of health and the Indigenous determinants of health. The process of looking out at the causes of the determinants leads to a lack of knowledge of how these determinants are experienced in daily life; and dismissal of the strategies applied by caregivers to manage these determinants. Therefore, even when determinants were seen at the household level health professionals did not know how to respond to these determinants, viewed them as ‘too hard’ and reported that they did not have the tools to address any concerns. When health professionals do not gain an understanding of the context of the lived experience of these determinants, by collaborating with caregivers on knowledge sharing, they problematise these determinants, are unable to see the adaptations made by caregivers to address concerns and view issues as outside of their reach of influence. I illustrate this concept in Figure 9.3. The presence of this view of the determinants is further evidenced by the health professional focus on the broad concept of poverty as a key determinant, which as I discussed in section 2.6.1, downplays the complexity of the determinants, places the concerns at the macro level and inhibits action on issues when raised.

> “I feel like I hit a dead end with food security; there are no support services and it’s difficult to find strategies to help them. Food security is the biggest barrier, I can’t offer anything and it’s the factor that stops people translating the information [into action]” (HP 6)

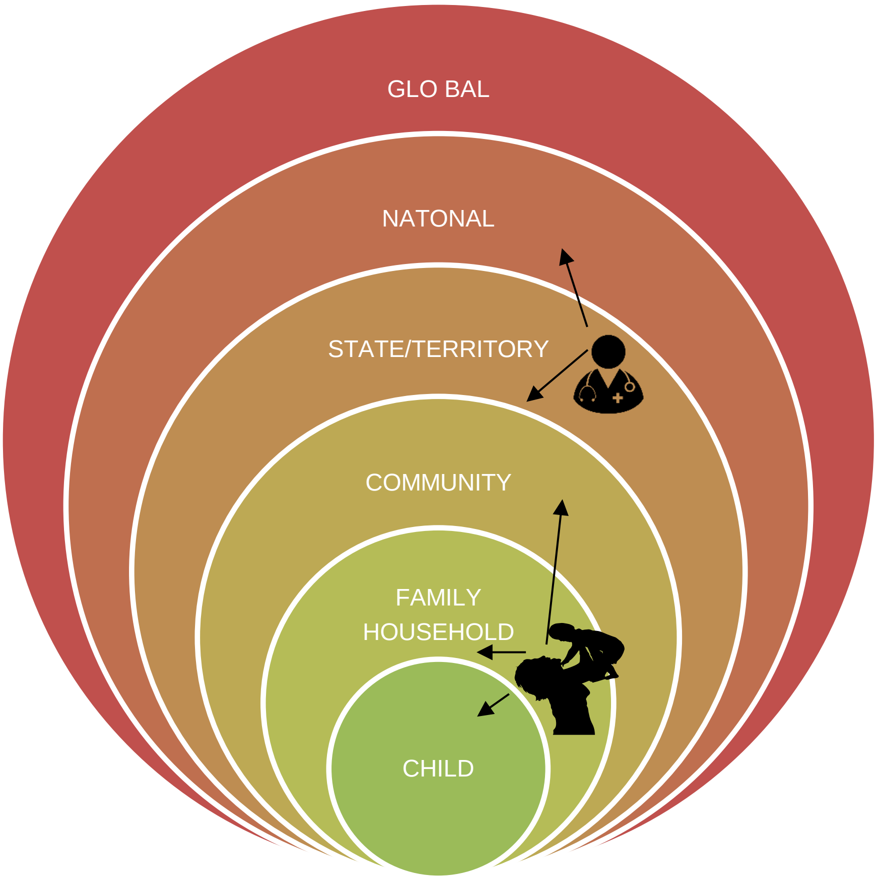


Figure 9.3 Position influences perception of the determinants of feeding

9.3 Interactions at the cultural interface

In this section I add new findings from health professionals interviews that describe how nutrition knowledge is gained and shared and the influence of the wider health system and socio-political environment on knowledge sharing and healthcare interactions. I extend my understanding of the information that I received from caregivers and health professionals with the assistance of critical social theory and postcolonial theory which I applied in order to develop key themes through the use of the building blocks of critical social research, which assisted in the deconstruction and reconstruction of emerging themes. I summarise my use of theory in developing these themes and discuss each in detail in the following sections of this chapter.

My application of critical social theory prompted an exploration of the wider social context on the caregivers' reported feeding practices and the socio-political context of feeding determinants, including, the impact of current and historical policies on the social position of caregivers and access to resources, particularly financial. It also directed further knowledge seeking of the wider health system and the socio-political environment in which health services are provided. I applied postcolonial theory to understand the colonial underpinnings of the distribution of power and the dominance of the health professional at the cultural interface. Through the application of postcolonial theory, I was able to determine colonising social and professional discourses and ideologies that influenced the sharing of knowledge, how health professionals perceived the practices of caregivers and why nutrition education activities were prioritised. I summarise the themes that arose from the application of theory to the findings in the dot points below and illustrate these themes in Figure 9.4.

Themes arising from application of theory to the findings:

- Child development determines the social positioning of the child and social structures act to support child feeding decisions and practices

- Health professional knowledge at the cultural interface is based on assumptions which are viewed through Western constructs. Western scientific knowledge is privileged throughout society and across the health system. It acts to reduce the knowledge seeking of the health professional. However, practice is modified to be culturally sensitive to the presumed needs of the Other

- The interactions between Aboriginal caregivers and non-Aboriginal health professionals at the cultural interface are shaped by settler colonialism. The resulting structural colonisation impacts on the socio-political environment and the determinants of health as well as the power of the non-Aboriginal health professional and Aboriginal caregiver at the health service and wider societal level

- Tension at the cultural interface disempowers both the caregiver and the health professional

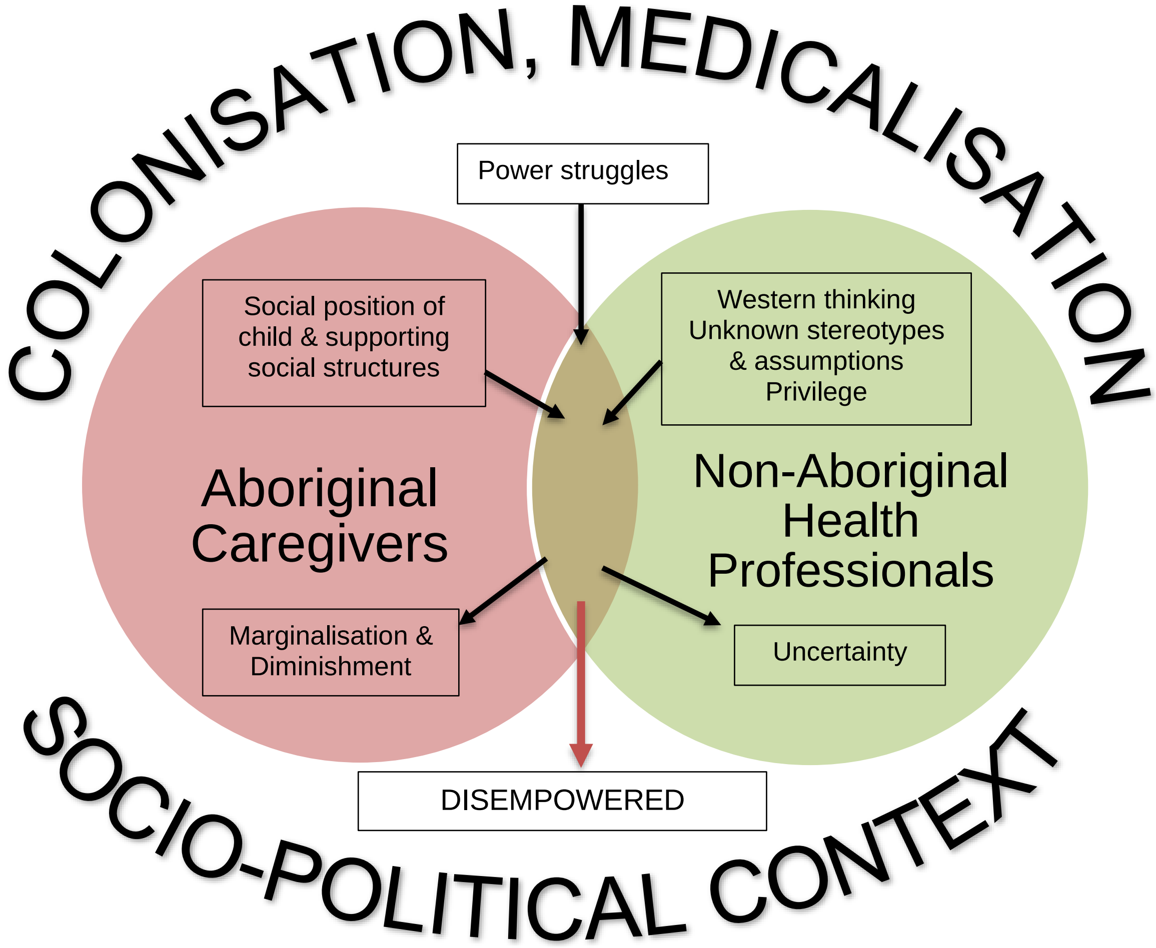


Figure 9.4 Disempowerment at the cultural interface

9.3.1 Social position of the child and supporting social structures

The key determinant influencing child feeding decisions and practices, as reported by caregivers, was related to social influences. Social perceptions of child development and the child's ability to be autonomous and interact with others to obtain their needs, determines the placement of a child in societal structures and the roles of the child themselves, the mother and other caregivers in feeding the child (sections 7.5.3 and 7.5.4). Social structures, relationships and social practices, including concepts of family and community (kinship) and reciprocity practices, shape the sharing of knowledge and resources and the lived context (see sections 7.4 and 7.7.4), which serve to promote child development and assist in protecting the child and caregiver against environmental constraints, such as financial insecurity, unstable access to services and inadequate health hardware that are experienced as part of daily life in the community as discussed in section 7.1. The importance of social supports align with the wider collective approaches to kinship and child rearing discussed in section 3.8 and the prioritisation of community as a determinant of wellbeing highlighted in section 2.6.3.

Health professionals appeared to be unaware of the importance of child development in determining child feeding practices and the roles of family relationships and reciprocity in the sharing of knowledge, money and resources and how these impacted on child feeding roles. Where there was acknowledgement of acts of reciprocity by health professionals, it was generally viewed negatively with terms such as obligation and demands seen to impact negatively on family food security (see section 0).

9.3.1.1 The young child at the centre of feeding decisions and practices

Caregivers' feeding decisions and practices during early infancy and the period of weaning were centred around the child and their needs. As discussed in section 7.5.4, these were determined by the child's development and behaviour, in particular the eruption of teeth, but also other developmental indicators. The guidance of feeding cues by the child promoted responsive feeding, with breastfeeding prompted by a child's cues of hunger and distress, and developmental cues used to guide the introduction and progression of solids. Given the important role of breastfeeding over the first year of life, mothers were responsible for feeding decisions until the child gained independence in eating and was exposed to a wider variety of family foods. The mother was supported by female relatives and peers and when health and nutrition issues arose and the child's grandmother was a key source of advice and practical support as reported in sections 7.2.2 and 7.4. The CBW was also a key source of information and acted as a mediator between Western and Aboriginal knowledge systems.

> "We send them to other family if we run out of food and they will give them some- we worry lots that they don't have enough food- we get [CBW] to help us too if we don't have food or if they won't eat" (mother 1, interview 4)

Child behaviour, which is linked to development, was also the driver of feeding decisions and influenced the level of control the caregiver had over these decisions, after the eruption of the first teeth and into the second and third years of life. Child behaviour influenced the mother's agency in weaning the child from breastfeeding and in responding to increasing demands from the child during toddlerhood, related to their social-emotional development (see section 7.6.2).

The caregivers' agency in responding to the demands of children and therefore in feeding decisions, was also determined by their access to money, which dictated whether or not there was capacity to find alternatives to the foods demanded and whether food could be wasted (see sections 7.7.1 and 7.6.2).

> "we don't have money for other foods so they have to eat what's given to them" (mother 2, interview 4)

> Mother: "they cry and scream sometimes at the shop and you just want to shut them up…they want lollies and drinks"
>
> AB: and what do you do
>
> Mother: "we give it to them- sometimes you can give them a yoghurt or something like that… but it depends if you got the money for it" (mother 1, interview 3)

The response to demands was also determined by the self-efficacy of the caregiver in responding to the child's behaviour. This self-efficacy was influenced by concerns for the child's adequacy of intake, which related to the child's health status and demonstration of fussy eating. If children were unwell, had inadequate weight gain or perceived inadequate intake due to illness or fussy eating, caregivers would often provide the child with foods that they liked and preferred, or demanded, in an attempt to increase the amount of food consumed by the child.

> "if they won't eat sometimes we will get them other things we know they like, like some chips or something, we ask them what they like and we get that for them" (mother 2, interview 3)

Health professionals reported that children demanded foods, in particular, discretionary foods, from their caregivers, but identified a lack of caregiver control and inability to say no, which were related to different and negatively viewed childrearing values, as the cause of feeding concerns (see section 8.4.5). They also reported that they had been asked for assistance in ceasing breastfeeding and in managing fussy eating, but did not provide advice or assistance to caregivers, even when asked, on managing children's behaviours and downplayed its role as a determinant of feeding practices. Contrasting with the health professionals' views however, as discussed in section 7.6, caregivers reported that rules such as sitting to eat were applied to mealtimes and I observed that children were monitored and redirected back to their eating tasks by caregivers throughout the meal time. Caregivers also described applying covert strategies such as leaving children in other people's care when shopping or swapping demanded foods for alternative options in order to influence the foods consumed.

> "there seems to be a lot more giving into the kids for their wants rather than supplying them with what they need. you don't see them walking around with a mandarin but you always see them walking around with a Coke and packets of chips" (HP 1)

As discussed in section 7.2.2, whilst the mother was deemed responsible for the feeding decisions of young infants, this responsibility was shared with other female relatives as the child developed, particularly after the first year of life. By four years of age, a child had gained adequate autonomy from the primary caregivers to be able to spend more time away from them and to obtain foods from other people in the community, therefore gaining independence in determining what foods were eaten, when and where. Hence, the roles of caregivers would significantly change after this time.

> "everyone in the family will help to feed the little kids- they give them food and help them to eat…her grandmother looks after her lots and her aunty, so they give her food. Also [neighbour] brings her food when she is hungry, she will bring food across to our house to share, especially for the kids and her daughter, she helps to look after her too" (mother 4, interview 2)
>
> "the little kids start to spend time with big kids… after school the kids go to the shop every day, they buy icy poles, chocolate, chips, sweet stuff. They all share- each will put in their money, like one dollar and they all share the food" (community woman, focus group)

Health professionals were not confident in their knowledge of the roles of caregivers in feeding children and often cited the early autonomy of the child, which was perceived to commence in early infancy as preventing the caregivers' implementation of their recommendations and leading to neglectful feeding practices.

> "there is no involvement from the mothers with children when they are eating- the care givers will talk amongst themselves- they don't encourage the child and there is no talk about the food" (HP4)
>
> "I don't think it would be very structured, so you might see them give them the food or have a bowl in front of them. A lot of the times they might give them a couple of spoons of the food but the babies tend to have finger foods very quickly…independence is promoted at a very young age" (HP 5)

Acknowledgement of the changing role of caregivers, their concerns and the strategies used to control children's dietary intakes offers opportunities to engage a range of caregivers and to apply family based approaches and actions, especially in the first years of life when caregivers have more control over feeding decisions.

9.3.1.2 Supporting social structures and reciprocity

The caregiver and child are encircled by kinship support at the family and broader community level, which served to provide access to money, food and other resources, particularly in times of resource stress and when faced with difficulties and uncertainty in managing access to services and resources as discussed in 7.1. Whilst environmental factors such as financial security and access to resources such as health hardware, acted to constrain the agency of the family in enacting their preferred eating and feeding practices; social influences, especially relationships with others and acts of reciprocity between family members, assisted in reducing the potential impacts of food insecurity and promoted practices seen as healthy, such as home cooking and access to bush foods.

> "everyone joins in to cook, sometimes people will take turns. That helps with the money you pay and cook for everyone one time someone else does it another time" (community woman 2)

> "we share food with different family. Different people get paid on different days, so you might go to family for dinner" (mother 3, interview 3)

These factors are important cultural strengths in child feeding but were often viewed negatively by health professionals, who believed that reciprocity placed increased demand on caregivers to share limited food supplies and contributed to food insecurity.

> "Food insecurity is seen across the community…Anecdotally this is secondary to gambling which leads to financial concerns and to cultural obligation to share, no budgeting or financial skills. Money doesn't last the pay cycle…" (HP 6)

The assumed knowledge, based on generalised cultural stereotypes, and deficit view of what health professionals described as cultural attributes, indicates a lack of collaboration between health professionals and caregivers in creating shared understandings.

9.3.2 Health professionals and concepts of the cultural Other

Caregivers' living circumstances and feeding practices were viewed by health professionals as different to their own and were compared against the standardised norm of the health professional, with caregiver practices generally viewed as deficits.

> "parenting styles, it seemed to be. For instance,…. we went around to each house, there would be a mix of people there, grandparents and parents, there were lots of people in the house and when we asked who was caring for the child there would be no- yep I'm the Mum, so it could have been any number of people in the house who were in charge of getting brekky ready in the morning and the child up and ready for school. But on the other hand, there were kids who were well presented and ready getting on the bus" (HP 5)

> "the parents will often say the child is too busy playing to come and eat, so that's the parental idea of food, that children will come and ask when they are hungry, but children don't have that marker…. The parents will say well he doesn't want it and they will leave it at that, kind of you can't fight the person who's supposed to be in charge, it kind of falters there, you will say well you're the Mum you can't give them options, they have to sit down and eat and then he can play after he eats, but it doesn't work that way" (HP 1)

Differences were related to racial/ethnic and socioeconomic characteristics, with the socio-economic traits stereotyped as common to remote dwelling Aboriginal peoples. Four health professionals related feeding practices to what they perceived as 'problematic' cultural beliefs or practices, such as demand sharing and transience.

> "I am not sure if they even believe in iron deficiency anaemia, they might not see the symptoms, the kids still present with lots of energy. The whole belief system about these things might be different" (HP 7)

> "we have some parents who may buy food for their kids but it is eaten by other people in the house… it's the obligation culture, so that's other family members coming in and eating whatever is there" (HP 1)

Responding to cultural differences is an important aspect of healthcare and Doane (2005 p 304) outlines that 'differences cannot be overlooked, discounted, erased or trivialized- they must be taken seriously', however the way that culture and difference are viewed influences how health professionals respond to this difference (Browne & Varcoe 2006). The concept of culture presented by health professionals in this study was linked to a set of characterising beliefs, values and practices that differed from the health professionals' norms. Specifically, different health beliefs, child rearing values and practices, low education and literacy levels, high transiency and 'poor' living conditions related to poverty, were seen as categorising characteristics of remote dwelling Aboriginal peoples. Perceptions of the living conditions or child rearing practices which were compared against the norms of the health professional, were used by health professionals to determine likely engagement with health services and compliance with health professional advice. An expectation that caregivers were required to adapt to meet the expected practices of the health professional in order to achieve optimal diet or to improve health was inferred.

> “the clinic manager highlighted specific families around the state of the house, the cleanliness of the yard and when you looked further into it there were growth and nutrition issues, there was a whole picture of things going on that related to the health issues. They weren’t very engaged with the clinic, the clinics told me during handover that despite going around and trying to get them to come, they were considered high risk, they couldn’t get them up and they had no reason to come” (HP 5)

As I discussed in section 4.2, this portrayal of difference has been referred to as Othering, or the creation of one’s own identity in reference to others who are perceived as different to themselves (Johnson et al. 2004). Its presence in the responses of health professionals is evident in the frequent use of the terms ‘they’ and ‘them’, to describe caregiver practices, and ‘we’ when discussing concepts related to health professionals or non-Aboriginal society. As discussed earlier, Othering practices have been reported amongst health professionals in Australia (Paradies 2006a; Taylor 2010) and in Canada (Browne 2007), and have been associated with an essentialist view of culture, in which cultural Others are prescribed a set of characterising traits that are contrasted to those of the dominant group or community (Browne & Varcoe 2006; Dutta 2007). In this study, traits were frequently assigned on the basis of racial characteristics.

Essentialist views of culture have been criticised as being based on stereotypes and assumptions (Johnson et al. 2004; Reimer Kirkham & Anderson 2002), which ignore individuality, the diversity amongst ethnocultural groups and the socio-political factors that determine social position and access to resources (Johnson et al. 2004). These views, as discussed in section 4.4.1, may be reinforced by cultural awareness and other health professional training. The health professionals in this study applied and privileged assumed knowledge gained from training, colleagues and work in other communities, to determine caregiver feeding practices and the determinants of those practices (section 8.3). This assumed knowledge was applied as relevant to all caregivers in Central Australia.

> “some families will tell you, so you’ll be able to get more of a history, but for the families that don’t, I kind of went on a broad what I already know” (HP 5)

Similar application of assumptions and stereotypes has been reported in the literature (Browne & Varcoe 2006; Paradies 2006a) and has been reported to limit the knowledge seeking of health professionals in understanding the context and individual needs of their clients (Browne 2007), especially when interactions with the client are perceived as 'difficult' (Canales 2000), or when health professionals are constrained by a lack of time and resources (Eraut 2004).

> "it depends on the level of engagement with the mother as to whether or not you ask questions about whether or not they have a fridge or how they cook" (HP 3)

Othering therefore prevents health professionals from working at the cultural interface and this feature of an essentialist view of culture may be associated with the health professionals' lack of knowledge of feeding practices and the context and positioning of the SDoH in this study, especially given that the health professionals reported that they were less likely to gather contextual information from caregivers who they assessed as 'non-compliant' or difficult to engage.

9.3.3 Positivism and the privileging of dominant knowledge

As I discussed in section 5.2, health professionals are trained in positivist approaches that align with scientific and biomedical views of health as being 'true' and 'valid' with minimal consideration of alternative ways of knowing and doing. A positivist approach also limits the acknowledgement of bias and hence the privileging of knowledge and the dominance of the health professional at the cultural interface is likely unrecognised.

The health professionals in this study attempted to modify their practices to be sensitive to the cultural needs of their clients and used a variety of common modifications to meet the determined cultural traits of low education/literacy, financial insecurity and participation in traditional cultural practices such as consumption of bush foods as well as the perceived engagement of the caregiver. These modifications were guided by a set of principles to simplify information, language and concepts, for example through the use of pictorial resources and analogies, reduction in the amount and depth of information provided and use of resources that included images of traditional bush foods (see section 8.6.4).

> "I give simple messages and reduce it to only 1-2 messages at a time. I don't give specific recommendations like type of vegetables but more general advice" (HP 6)

> "I adapted my language to try and say it so it could be understood… using visual resources and hopefully communicating the information in a way that is easy to understand" (HP 1)

This type of modification of communication practices, to be culturally sensitive to the characteristics of clients from minority cultural groups, has also been described by Dutta (2007), who criticises the approach for failing to provide the information required by clients, whilst continuing to provide information based on the views and beliefs of the dominant group, thereby maintaining power imbalances in the favour of the health professional, and arguably promoting the need for assimilation in order to achieve positive health outcomes.

The viewing of behaviours and practices as simply cultural differences, especially when combined with the application of positivist notions of health, may also have led the health professionals to overlook or downplay the role of social, environmental and colonial influences on these behaviours, which Browne and Varcoe (2006) report can lead to victim blaming and mistrust. For example, health professionals reported that caregivers gave them standard answers or “tell me what I want to hear” (HP 2). However, there was no apparent consideration of previous experiences of racism, paternalistic care, constant enduring of poor quality services and lack of action to address concerns by health professionals and other services. For example, the lack of home maintenance and closure of services may influence the answers provided by caregivers who are motivated by their intent to maintain harmony or reduce further questioning. It may also, when health professionals felt that action on the SDoH were outside of their reach of influence, have helped to boost the confidence of the health professional as they focused their attention on standard modifications to practice for characteristics that are enacted at an individual level (Zoller 2005).

9.3.3.1 The dominance of individualised and biomedical approaches

The health professionals in this study provided nutrition education to individuals in response to diagnosed health concerns (section 8.6.1). One sided sharing of information was provided from the health professional to the caregiver and was dominated by what foods to eat, based on physiological need (see section 8.6.2). Knowledge that considered the individual or community context, practices or determinants of feeding practices was not shared. As discussed in section 8.6.4, culturally sensitive modifications were made in response to the socially perceived needs of people from other cultural groups. However, these modifications continued to be based on the biomedical knowledge of the health professional and were not negotiated with caregivers.

As I discussed in section 0, most nutrition activities undertaken by health professionals are informed by health behaviour and social cognitive theories that focus on the provision of information or knowledge that attempts to solve health issues through changing individual’s health beliefs, attitudes and behaviours. These activities as evidenced by the health professionals’ practices in this study, are based on biomedical and scientific rationales which place responsibility for health at the individual level and thereby lack consideration for the socio-economic context in which health behaviours and outcomes are located (Lupton 1994). This view of health directs health professionals' practice to knowledge building activities with their clients (Airhihenbuwa 1995), in which the knowledge of the health professional is imparted to the client in order to enable behaviour change (Dutta 2007).

9.3.3.2 A focus on biomedical models of care

The framing of health professionals' practice by biomedical models of health was also evident in this study through their focus on acute care, reactive approaches and reliance on health data to inform and prioritise practice.

> "I provide information on the issue that children are referred for, mainly growth faltering, anaemia and obesity" (HP 6)
>
> "I only did clinical work, the care plans, you work out who has a recall or use the traffic light list to highlight what children you wanted to see" (HP 5)
>
> "there is poor attendance at the health clinics in some communities, they only come in for their immunisations, but not health checks. The clinic needs to chase them more to come in for health checks, but a lot of the focus is on the immunisations and finding clinical problems" (HP 4)

Information gained from caregivers was cross-checked by health professionals against biomedical indicators of health or disease and informed a clinical judgement as to whether the information provided by caregivers was correct. This analysis frequently led to a mistrust of the information provided by caregivers.

> "the diet histories you take don't add up with the clinical signs" (HP)

Health professionals' knowledge of child nutrition practices and the information shared with caregivers was focused on the types of foods consumed by children, with little knowledge of or interest in the social context of eating- when and where foods were consumed, or the engagement between caregivers and children at mealtimes. Most health professionals did not outwardly identify that the social context of eating was relevant to their work, and there was no evidence of significant discussion with caregivers around these topics, including when caregivers raised concerns about fussy eating or children demanding sweet foods. This focus therefore discouraged more holistic views of health and knowledge seeking of alternate views and approaches that were not prioritised under a biomedical view but were the key determinants identified by caregivers.

9.3.3.3 A lack of knowledge as a key determinant

Almost all health professionals cited a lack of caregiver knowledge about child health and nutrition as key determinants of children's nutritional intakes and feeding practices. This indicates an individualistic view of health, especially when combined with the focus of nutrition interventions on the provision of standardised information.

Most health professionals described a general lack of nutritional knowledge by caregivers; however, two health professionals' reported that caregivers needed knowledge of Western approaches in order to apply health information or alter practices that were seen as of concern by health professionals. The dominance of Western knowledge frameworks was also evident in two health professionals' reports that engagement with Western education and other ways of doing things would increase the ability of caregivers to provide a nutritious diet for young children, hence a need to assimilate to dominant practices was implied.

> "people change if they have knowledge" (HP 2)
>
> "some people did what you say, some not. The ones who did would come back every time… maybe they were more educated and bit more convinced about Western practices" (HP 7)

The focus of nutrition interventions on the provision of knowledge was evident in both the clinic setting, occurring in response to the diagnosis of a nutrition-related health issue, and in community-based settings where health promotion activities focused on group education of caregivers or staff working with children. The information gained from caregivers in this study however indicates that caregivers do have knowledge of the feeding practices that are recommended by health professionals and that this knowledge generally aligns with the Infant Feeding Guidelines. This signifies that, as opposed to the beliefs of health professionals, a lack of knowledge by caregivers was not responsible for any incongruence between actual feeding practices and those recommended by health professionals.

It was evident in the responses of health professionals that not only was there a lack of knowledge of the perspectives and priorities of caregivers, but many health professionals also lacked knowledge of child development, infant feeding recommendations, common feeding concerns of young children and how to respond to the determinants of health.

9.3.3.4 A prescriptive style of nutrition education

The information provided by health professionals focused on the types of food that children should eat, with health professionals advising caregivers what foods should or should not be provided to young children, similar to a medical prescription. In some cases, health professionals reported that they limited the information given to pointing out and naming the foods that should be provided as illustrated on the resources, or alternatively used resources to recommend swapping foods to healthier options.

> "so, I would go over and name all the little animals and stuff and talk about tea and explain why we want to have stronger blood" (HP 1)

The style of education was prescriptive and because health professionals dominated decision making of the required changes with little engagement of the caregiver, this approach could be regarded as paternalistic and described as an ongoing form of colonisation (Drolet & White 2012; McPhail-Bell et al. 2015). As I described previously, little knowledge of the context in which feeding occurred was apparent and hence information provided did not consider the feeding environment. Some health professionals reported that they sometimes provided information to motivate caregivers to make dietary changes, such as why certain foods were important, but this was limited if the caregiver was not perceived as 'engaged'.

> "I only give one or two bits of information, like cut back on sweet drinks or swap x for y. You can't give too much information, they won't listen" (HP 3)

9.3.3.5 Nutrition information was based on own knowledge and experiences and did not consider the environmental context

The information provided to caregivers was based on a limited range of standard resources and the nutritional knowledge of health professionals was often limited to the knowledge contained in these resources or gained from personal experience. These sources of knowledge are likely to privilege the dominant knowledge and norms of the health professional, especially in the context where there is limited knowledge of the experiences and context of caregivers. It may also lead to the provision of conflicting advice by different health professionals and a lack of ability to respond to caregiver needs, given the low level of nutritional training undertaken by most health professionals. It also standardises advice and health professionals reported that there was minimal adaptation of information to meet caregivers' needs. One health professional reported that she did not deviate from the information provided in the standard resources.

> "I use the bits of paper to say these are the good foods, I don't go outside that box" (HP 1)

Health professionals' modifications to knowledge sharing was based on assumed need, in what has been described by some authors as a 'cook book approach' (Williamson & Harrison 2010). This was evident in the recommendations for caregivers to choose cheaper alternatives of meats but also advice to increase their provision of foods requiring cooking, such as meats and vegetables, when health professionals were aware that several families did not have access to functioning health hardware.

9.3.3.6 Opportunities to de-privilege biomedical knowledge?

The privileging of biomedical knowledge was highly evident in the identification and management of iron deficiency anaemia, which was cited as a major health concern by health professionals, but not by caregivers. As outlined in section 3.1, iron is a crucial nutrient required for brain development in early childhood. Its deficiency has been linked with cognitive delay, reduced IQ and growth faltering which are associated with lower social position later in life. Iron deficiency anaemia has many causes including inadequate intake of iron rich foods and the delayed introduction of these foods into the diet during the weaning period, as well as recurrent infections. The HU5K program incorporates regular screening for anaemia, this is not routinely undertaken in other regions of Australia, however guidance on the inclusion of iron rich foods into the diets of young children is a standard component of child health guidelines.

Table 9.3 illustrates that all children participating in the study, except one, were diagnosed with anaemia by twelve months of age. This is similar to other reports, discussed in section 2.4 that up to 90% of Aboriginal infants experience anaemia between six months and two years of age (Acquino et al. 2013).

Table 9.3 Prevalence of iron deficiency anaemia amongst children participating in the study

	6-12 months	12-18 months	18-24 months	> 24 months
Number of children with diagnosed anaemia	85% 6 out of 7	71% 5 out of 7	43% 3 out of 7	40% 2 out of 5

Biomedical research shows that the likelihood of anaemia reduces as iron rich foods are included in the diet, however the feeding practices reported by caregivers in Chapter 7 and summarised in Table 9.4 indicate that few iron rich foods are introduced into the diet by eight months of age and that highly absorbable (haem) sources are not included until the eruption of four teeth at around nine-twelve months of age.

Table 9.4 Iron content of foods introduced over the first year of life

Food	Amount of Iron (mg/100g)	Age of introduction
Rice#	0	4-6 months
Pumpkin/potato#	0.3	4-6 months
Tinned spaghetti#	0.3	8-10 months
Jar of vegetable-based baby food	0.5	4-6 months
Pasta#	0.6	4-6 months
Jar of meat-based baby food	0.8	4-6 months
Baked beans#	1.0	9-12 months
Tuna	1.2	9-12 months
Peanut butter#	1.8	9-12 months
Bread#	1.48- 7.08*	9-12 months
Egg	1.98	8-10 months
Minced/roast/stewing beef	2.3	9-14 months
Weetbix#	14	4-6 months

* iron fortified breads are available in some remote communities
# non-haem iron source, low absorption by the body

(Food Standards Australia and New Zealand 2019; Zand et al. 2011)

All health professionals listed anaemia as one of the major health concerns for young children in the community and reported providing advice to caregiver's on iron rich foods, mainly guided by the information contained in the "Good Foods for Strong Blood" resource, with minimal modification to individual context. As health professionals had little knowledge of child feeding practices in the community and often did not obtain this information from caregivers due to lack of time and a mistrust in the information provided by caregivers, which were viewed as standard answers, they assumed that the diet was deficient in iron rich foods and did not explore the correctness or reason for this assumption. They acted to provide education on what foods to consume, without the engagement of the caregiver and an understanding of the context of the diagnosis. Their approach indicates 'nutritionism' and provision of standardised information that addresses the physiological role of food in the body with little or no consideration of why foods may or may not be provided.

Scientific evidence supports health professionals to encourage the consumption of iron rich foods by young children in order to optimise growth and development and future health and socioeconomic outcomes, especially when diagnosed with anaemia. However, consideration needs to be given as to why these foods are not included in the diet or if other causes are responsible for the diagnosis. This requires knowledge beyond the biomedical understandings currently used by health professionals and a willingness to deprioritise medical knowledge in order to respectfully collaborate with caregivers to gain understanding and develop shared solutions to health concerns, without the caregiver feeling judged.

When I openly discussed with caregivers the foods provided to young children, including when determining why some foods that I considered as nutrition priorities, given my own biomedical understandings, were not provided; the caregivers explained a number of reasons why they did not regularly provide iron rich foods to their children. I approached these conversations not with the intent to provide education and impart my own knowledge, but to seek caregiver perspectives and understandings and to explore how caregivers managed situations that may have promoted or restricted the provision of certain foods. Rather than privileging my own knowledge I used this to prompt further knowledge sharing by the caregiver, occasionally sharing my own knowledge that I thought may be of relevance, then seeking caregiver feedback on this. Through this process caregivers shared the widely held belief that children could not safely consume firm foods such as meats prior to the eruption of four teeth, they told me that cost of meat was too prohibitive for regular purchasing, especially if money was obtained from others to purchase food, and they described that they did not have safe places to store meats or the equipment needed to prepare and cook meals. Whilst they were told by health professionals to provide kangaroo this was difficult to obtain as you needed access to a car, guns and ammunition, which most families did not have. Caregivers also described frequent periods when children were unwell with infections or suffered reduced appetites that may have contributed to or exacerbated anaemia. In this process I also discovered that caregivers could identify and had existing knowledge of iron rich foods and many applied strategies to either obtain these foods from others through acts of reciprocity or they would substitute other foods such as eggs, bacon and ham, if the child was deemed developmentally capable of consuming these foods safely and they had the money available to purchase these foods.

Delaying the imparting of Western knowledge and prioritising knowledge seeking of the determinants of feeding practices can shift the focus from deficit assumptions to consideration of strengths and development of shared solutions. This empowers caregivers through meaningful participation and collaboration.

9.3.4 The impact of structural factors and the socio-political environment

9.3.4.1 The impact on caregivers' practices

The social and environmental context of the household and the local community significantly influenced the feeding practices of caregivers. These environments are shaped by national and state/territory level policies which inform access to resources, such as housing and financial support; in addition to determining the focus of health service activities and support for community level activities that promote health (e.g. stores licencing). Policies can also influence the agency of caregivers to enact choices influencing health (for example the NTER defines where income can be spent).

These policies are shaped by social contexts, derived through colonisation, which act to stratify individuals into a variety of social positions which determine individual and group access to resources, and the power to determine resource distribution (World Health Organization 2010) and agency (Lee 2017). In Australia, structural colonisation, as I discussed in section 2.2, has marginalised and discriminated against Aboriginal peoples and reduced access to resources that form the basic needs of health (Paradies 2006a). As described in section 7.1, these structures permit reduced access to maintenance services, prolonged closures of essential services and delayed access to essential payments that would not be tolerated by most members of the dominant social group.

The social position of Aboriginal peoples also influences how they access and engage with health services. Health professionals are granted a position of privilege and power in society through their expert roles (Anderson 1998). This power is emphasised when working with populations who have been marginalised or oppressed (O'Neil 1989; Reimer Kirkham 2003), especially when the health professional is associated with the dominant societal group. Historical and contemporary practices such as the removal of children during the Stolen Generations or contemporarily on the basis of neglect, have led to a mistrust of government services and may reduce access to these services, leading to more likely usage for acute care. Similarly, experiences of paternalistic care and racism, may influence the interactions between caregivers and health professionals at the cultural interface.

Influences of colonisation are also seen in the types of foods consumed by caregivers and young children, as discussed in section 2.2.4. The meals prepared by Aboriginal caregivers in this study reflected traditional meals, using ingredients that were provided during the ration era, such as tinned foods, damper and stews. These foods were provided initially due to their durability and minimal storage needs, whilst access to fresh fruits, vegetables and meat, particularly in a desert climate, were limited (Fredericks 2013). These characteristics continue to be relevant in the contemporary living conditions described by caregivers and observed in this study (described in section 7.1). The provision of these foods over generations also led to a familiarity with these foods and they may also have formed part of the cultural identity of individuals leading to embedding into contemporary diets (Fredericks 2013). Limited access to foods such as meat, for example due to financial reasons, can also make these foods more desirable, leading to a focus on their consumption and the inclusion of cheaper or more readily available versions of these foods, such as bacon and meat pies, into the diet where possible. Conversely, the infrequent consumption of foods such as vegetables, for which there is not an innate taste preference, may inhibit the enjoyment of these foods and reduced their inclusion in the diet, particularly where there were concerns of wastage.

The historical influences on feeding practices described by caregivers, were also displayed through the sharing of beliefs and practices across generations relating to the introduction of foods based on a child's achievement of developmental milestones and eruption of teeth, in child rearing strategies which aim for progressive autonomy in feeding, and in the form of covert guidance of safe eating practices. These beliefs and practices when shared amongst families and community members lead to the establishment of social norms, which in-turn influence the information shared and practices observed across the community. Normative beliefs at the community level were illustrated through the caregivers' negative perceptions of formula feeding. However, rather than classifying these as cultural beliefs, which the health professionals then assumed applied to all Aboriginal caregivers, it is important to recognise that the dynamic and contextual nature of these social norms may be community specific and therefore not extend to other racially similar groups and communities.

9.3.4.2 Influences on health professionals' practices

As I reported in section 4.2, previous authors have identified that health professionals lack preparation and support for their work at the cultural interface (Colles, Belton & Brimblecombe 2016; Rae et al. 2016; Taylor 2010; Wilson 2011), in this study it is clear that this is not limited to cultural knowledge but extends to holistic knowledge of child health and nutrition. All health professionals in this study had undertaken some brief on-the-job cultural training, however only one health professional participant had undertaken further non-discipline specific training in child health and one in nutrition. Health professionals, including PHNs and CFHNs reported lacking adequate knowledge and skills to work confidently in child nutrition.

> "you learn paediatric nutrition on the job. In a Dietetics course at uni you learn broadly, you can't expect them to teach you everything. I think we did one week of paeds. You don't learn things like development, you have to learn that alongside other nutrition stuff as you work" (HP)
>
> Regarding training in nutrition "not specifically, it's more like in-services and working alongside nutritionists… that's what you do when you're on your own" (HP 5)

The training of health professionals in Australia is based on scientific and positivist epistemologies, that align with biomedical views of health (Buchanan 1998). Further, as I discussed previously, the training of most Australian health professionals includes minimal focus on nutrition (Kris-Etherton et al. 2015; Mitchell et al. 2018) and health professionals working in rural and remote areas are often required to be generalists, with roles that encompass multiple aspects of health, alongside nutrition and child health. Whilst in-services may occur, the topic area may not be prioritised, and training may not be accessible. In this study, health professionals reported that they relied on knowledge gained from their own experiences, which occurred in the context of the norms of the dominant social group, or from information gained from colleagues who had a similar socio-cultural background. These sources of knowledge are likely to privilege dominant views and the problematising of cultural differences, as there is no ability to compare to other ways of knowing (Buchanan 1998).

The knowledge seeking activities of health professionals, their ability to gain contextual knowledge and the ways in which their practice is enacted are further shaped by structural factors at the health service level. As I discussed in section 4.4.1, health service policies determine the focus of service provision on acute or preventative care and current organisational structures and funding have led to a focus on acute care activities, despite the presence of higher-level policies advocating for a social determinants of health approach. Whilst health professionals may have preferred to work in a community based, preventative role, they reported that this was constrained by service expectations and demands.

> "what I wanted to do was to focus on the community setting, like the school, but the clients were referred so I would see them" (HP 7)

Health professionals also cited a high demand for acute care, high levels of ill health and requirements to undertake activities such as documentation, as reducing their ability to work effectively with caregivers

> "I'd only see families for about 10-15 minutes, there isn't much time and too much is spent doing the computer stuff" (HP 3)
>
> "it's only that amount of time and then see you later, fill out the boxes, a couple of little things and then you go. Because if you give too much information about all the different things, because that health check talks about hearing and teeth and food, so you can't talk about each one" (HP 1)
>
> "if I knew I had so much time with this patient and I wasn't going to get interrupted and maybe if we had booked appointments, then maybe I would adapt more and give more, but that's not going to happen" (HP 1)

Health service policies also determined where health professionals undertook their work, with perceived safety risks potentially limiting work to the clinic and other institutional settings, hence limiting the opportunity to establish relationships with caregivers and to observe local contexts and feeding practices. High turnovers of community staff also influenced the provision of health and other services, for example, the frequent closure of the childcare centre and access to specialist services such as speech pathology; and were cited as limited opportunities to develop trusting relationships with caregivers.

> "when I started working there the creche was open but soon afterwards it closed, and it didn't reopen until after I'd left" (HP 5)
>
> "so here we are patching people up and with the clinic being closed you are forever trying to catch up so you never actually get to a point where you can actually move forward, you're always trying to catch up to line zero so to speak… there's recalls and people who haven't had any medications for a while because no one's been following them up, so therefore they are sicker now. So, you know, you are forever the ambulance at the bottom of the hill trying to clear that lot before you can get to the top" (HP)
>
> "see part of the problem is that the locals won't talk to someone new about a whole heap of information, they are only here for a short period of time so they don't have that buy in, they don't know the complications… there's always a new nurse that you have to get used to, they teach you a bit different, they don't have the same relationship" (HP 1)

The lack of support structures for identified issues was strongly highlighted by health professionals, who felt that they were ill-prepared for managing the social determinants of health.

> "there are limited services in communities so it's harder to address. I feel like I can put in stop gaps, but I can't directly impact on the root causes" (HP 6)

> “sometimes I feel like a social worker, there is no one to refer to. I have called Territory Families (government welfare agency) to see if they could help with money, but the first time they rejected the case and they don’t respond to tell you what’s happening, I felt like there was no support there” (HP 7)

> “the information isn’t covered in your orientation and I am not confident to address it. Things like gathering the social history is prompted in PCIS (computer medical management system), but there are no prompts on what to do if a problem is reported” (HP 6)

As discussed above social stratification and social structures at a broader national level, lead to the higher social positioning of non-Aboriginal people and therefore also influence interactions between health professionals and caregivers. Many of these views and practices may be unknown and unintentionally influence the practice of health professionals (Browne 2007). The dominance of the non-Aboriginal population, brought about through a history of colonisation, shapes the way that non-Aboriginal people, including health professionals, view culture and cultural practices and how Aboriginal peoples are perceived in society. Health professionals were likely unaware of these influences on how they viewed the viewed and responded to observations of the lived experience of caregivers, however the social position of health professionals may have led to the judging of the likelihood of “social issues” and concurrent health concerns through visual characteristics such as housing quality.

> “specific families were highlighted around the state of the house, the cleanliness of the yard, and when you looked further into it there were growth issues and nutrition issues, there was a whole picture of other things going on that related to social issues” (HP 5)

These social views also reinforce the privileging of dominant knowledge and practices through unequal power distributions (Canales 2010) and may be related to the lack of contextual knowledge and application of assumed knowledge and stereotypes to knowledge of the caregivers’ practices, as the provision of certain information is seen as more important in the context of historical marginalisation (O’Neil 1989).

9.4 Caregivers and health professionals are disempowered at the cultural interface

Transactions of power occurred at the cultural interface that served to protect or enhance the power of both caregivers and health professionals. The caregivers' access to services for acute care and immunisations (which are required to access full welfare benefits under current policy requirements), but not for preventative care may have been an act of agency on the behalf of caregivers. Similarly, the provision of information which aligned with what health professionals wanted to hear, may have been an expression of agency in limiting information sharing and reducing paternalistic education from health professionals. However, the practices of health professionals also served to disempower caregivers, likely unintentionally, with practices such as Othering, discussed below, leading to marginalisation and reduced agency.

Given the continuing structures of colonisation and the contemporary power imbalances, in favour of non-Aboriginal people; health professionals held greater power over interactions with caregivers at the cultural interface. This was evident in their applications of assumed knowledge and stereotyping, privileging of dominant Western knowledge and approaches, and prescribing manner of health education; which was adapted to be sensitive of cultural characteristics but did not address the contextual determinants of feeding or priorities of caregivers.

The approaches of health professionals at the cultural interface built on the power inequities between the health professional and caregiver that pre-exist in government services, and therefore in the intercultural space. Their role as expert, in an already inequitable relationship served to privilege dominant and scientific knowledge and views. Consequently, the knowledge and views of the caregiver were negated and the caregiver was excluded from knowledge sharing and decision making, leading to a one-way flow of communication and a power differential in favour of the health professional. The process, despite the acts of agency described above, disempowered caregivers from actively engaging at the cultural interface to voice their needs or to determine or prioritise actions that address their concerns. This disempowerment was overcome when caregivers in this study were invited in a culturally safe space to share their knowledge and to voice their concerns and preferred solutions, as evident through the active participation and open sharing of knowledge by participants presented in Chapter 7. However, given the embedding of oppressive and discriminatory actions and discourses across the entire health system, individual acts of agency are unlikely to support long-term actions that protect and promote wellbeing.

The process of Othering and the power imbalances between caregivers and health professionals were probably unknown to the health professional, who as reported by other researchers most likely had the best intentions of supporting the needs of their clients (Browne

2007; Browne & Varcoe 2006). The presence of Othering was however most likely felt in the health professionals' descriptions of tension, uncertainty and the lack of effectiveness of their practices which were cited as "hard to follow" (HP 2), as they did not address the social determinants of health or align to cultural beliefs. This acted to disempower and disable the health professional as they reported constraints by health service structures and a lack of resources to act in different or preferred ways, that they felt would better address the needs of caregivers.

> "I would be confident for some families, but for others there were more issues going on than what my consult could provide support for and I didn't get to follow up on a lot of those families" (HP 5)
>
> "I feel confident that I can provide the information… we have resources and we try to adapt using visual resources and hopefully communicating the information in a way that is easy to understand, but there is a divide between communicating the information and it being, I guess believed and accepted, and then I guess used. I think it's more of a belief and education system, it's completely cultural and that's beyond the average health professional to change" (HP 7)

This disempowerment to change their approach or to work in ways that they deemed were more effective was particularly highlighted by one health professional.

> "I feel like I am sort of just saying this stuff because I have to say it. But, knowing the logistics and the complications around it, I feel like it's sort of talking to an empty jar really… there is no point in talking about food when there's no way of getting it, cooking it and you know; you are highlighting how bad it is" (HP 1)

9.5 Chapter summary

In this chapter I have explored whether the feeding practices and their determinants as perceived by health professionals correlated with the feeding practices as described by caregivers. This indicated that whilst there were some correlations, health professionals lacked knowledge of children's diets around the time of weaning and had limited understanding of the social context or environment in which food is provided, the roles of the child and caregivers in feeding and the strategies employed by caregivers to influence the foods consumed by children. Further, health professionals were aware that the SDoH impacted on feeding decisions but were unable to describe how these informed and were managed in daily life. As such, health professionals looked out at the macro level causes of the determinants and not at the impact of the determinants at the child and household levels. This led health professionals to feel as though the SDoH were outside of their scope of practice and inhibited the actions of health professionals at the cultural interface.

This analysis indicated that effective knowledge sharing, and the creation of shared understandings was not occurring at the cultural interface. One sided sharing of knowledge dominated by the health professional was evident in that Aboriginal caregivers demonstrated knowledge of the recommendations of health professionals but health professionals displayed limited knowledge of the practices and determinants of caregivers. The medicalisation of health services and the dominance of biomedical views of health professionals directed individualised, behavioural models of care that focused on addressing perceived biomedical knowledge deficits and reduced focus on the context and determinants of feeding practices. This model of care was further reinforced by structural and systemic factors, such as demands and expectations for acute, clinic-based care, limited time, nutrition knowledge and training, that reinforced essentialist views of culture. Limited capacity, competing time demands and high staff turnover further reduced the ability of health professionals to develop the trusting relationships with caregivers that are required in two-ways sharing of knowledge, and reinforced reactive primary care that relied on the medical expertise of the health professional. Wider structures of colonisation reinforced the power imbalances and a history of negative experiences and views of government services by Aboriginal peoples supported the dominance of the non-Aboriginal health professional and the privileging of dominant views and practices. Hence the information that was likely to be shared and the level of participation of the caregiver was determined by the health professional, who dominated the cultural interface. Positivism by the health professional inhibited their recognition of these factors.

An essentialist view of culture by health professionals, together with a lack of understanding of the local context, led to assumed knowledge and application of deficit stereotypes of children’s dietary intakes and caregivers’ feeding practices. The assumed knowledge of health professionals was applied to nutritional assessments, and paired with the factors, above blocked knowledge seeking beyond that which was already ‘known’; as medicalised views of health were prioritised over the social context. It guided the health professional to provide nutrition education and strategies, with modifications made to adapt messages to make them sensitive to the cultural traits that were determined by the health professional. A lack of knowledge of the local context , structural constraints and the lack of engagement of caregivers in decision making however limited the modification of messages to suit the needs of the caregiver. Instead, prescriptive education and recommendations, based on the dominant norms of the health professional were provided, with the aim of increasing the knowledge of the caregiver and enacting behaviour change. In a cyclical manner, these factors further acted to reduce the knowledge seeking practices of health professionals, which further constrained the building of trusted relationships and active participation of caregivers.

10 DISCUSSION

In undertaking this study, I have been able to work with Aboriginal caregivers in a different way to that when working as a Dietitian. This enabled me to shift my practice to work at the cultural interface through:

- building trusting and reciprocal relationships with caregivers
- acknowledging actions that were based on my own social position, identity and assumptions and modifying these to be more inclusive of caregivers
- delaying my own priorities and deprivileging my existing knowledge, in order to seek and respect new knowledge and approaches; and to collaborate on new solutions
- seeking to understand how and why this knowledge was important to caregivers and to be open to and support other ways of doing

My own adaptations to practice were facilitated through a process of critical reflexivity, but before I was able to analyse and alter my own practices, I required a greater appreciation of and openness to different ways of knowing and doing. I needed some flexibility from the constraining structures that drive non-collaborative approaches to care and reduce action on the SDoH. I also needed an awareness of the influence of societal structures and discourses on my own identity and how I perceived and interacted with other people, particularly those from socio-cultural groups that differed to my own. In this chapter, I draw together the research findings to present a **representation of the current cultural interface** and discuss why this model does not meet the needs of Aboriginal caregivers or health professionals. I then reflect on the research findings and my own experiences to propose a **model of the optimal cultural interface**. I present a **series of recommendations for practice** that will support non-Aboriginal health professionals to work at the cultural interface and better meet the needs of Aboriginal caregivers. These new additions to knowledge provide **opportunities to reframe health professional training and to reorientate health service provision** to provide more effective and responsive nutrition activities that do not disempower either group.

10.1 My contribution to knowledge

10.1.1 A novel approach to nutrition research

My research approach, as community-based participatory research located in one remote community in the NT of Australia, allowed me to work closely with the caregiver participants to gain a detailed understanding of the lived experiences and individual context of feeding young children at multiple timepoints over the period of weaning; a time at which feeding practices are likely frequently modified in response to children's rapid developmental growth. As I discussed in Chapter 2, Aboriginal peoples are not a homogenous group but have a diversity of historical and contemporary experiences that influence child feeding practices. This diversity is not adequately acknowledged in the literature and knowledge of Aboriginal peoples' practices are often applied universally to all Aboriginal peoples and represented as assumptions and stereotypes in mainstream reports and datasets. As I found in this study, these generalisations act to reduce knowledge seeking of health professionals in practice. This research approach allowed me to work closely with the study community to better understand the issues in this context.

Through the use of critical social research methodology and qualitative research methods, I have highlighted the importance of social relationships and the interactions between the child and caregivers in determining children's dietary intakes. I have also shown the adaptations made to feeding practices in response to physical, social and financial determinants at family and community levels. My application of cultural interface theory to nutrition is novel. A body of research has applied the similar concept of two-eyed seeing, discussed in section 5.6.1, to food security, systems and strategy research in the Canadian context (Elliott et al. 2012; MacRitchie 2018); however, the application of this concept, and the way in which I applied it to the practices of caregivers and health professionals to explore child feeding in the Australian context, to my knowledge has not been previously undertaken. In applying cultural interface theory, I was able to present the voice, knowledge and practices of Aboriginal caregivers and non-Aboriginal health professionals (in Chapters 7 and 8) in a non-privileged manner, without judgement as to the 'correctness' of this knowledge. I was also able to develop an understanding of the factors shaping the sharing of knowledge.

This has led to thought-provoking new knowledge of the nutrition-related practices of both Aboriginal caregivers and non-Aboriginal health professionals and the determinants that shape these practices, as perceived by each group. This knowledge is currently missing from the literature but is particularly important given that the period of weaning, as I discussed in section 3.1, has been posited as a window of opportunity to address health inequities due to the ability to influence the development of eating behaviours and health outcomes that persist across the life course. Whilst knowledge of the practices of each group provides important insights, this study serves to highlight the importance of context and the dynamics that (do and can) occur in the cultural interface rather that to suggest that the knowledge itself is transferrable to other groups. It encourages wider consideration of knowledge/perspectives beyond that prioritised by biomedical views of health and therefore promotes different ways of working and the importance of collaborative approaches.

10.1.2 Response to the research question

Through the use of critical social theory and postcolonial theory I was able to analyse the factors influencing the interactions of health professionals and caregivers, and I used this critique to determine if the nutrition activities undertaken by health professionals met the needs of caregivers. I defined these needs as prioritising the issues of concern to caregivers, considering the context in which feeding occurred and responding to current feeding practices and the determinants of these practices. Further, in order to meet caregiver needs I proposed that nutrition activities needed to be socio-culturally appropriate and that collaboration was required in the sharing of knowledge and generation of solutions. This analysis allowed me to develop a model of the current cultural interface and the factors influencing the interactions of Aboriginal caregivers and non-Aboriginal health professionals when they meet at the cultural interface. In this chapter, I present this model and describe why the nutrition activities implemented under this current model not only fail to meet the needs of caregivers but act to disempower both the caregiver and the health professional.

10.1.3 Modelling of the optimal cultural interface

Ensuing this analysis, I introduce my concept of the optimal cultural interface and offer a series of recommendations to change how health professionals work to collaborate in the sharing of knowledge, creation of mutual understandings and generation of solutions that meet the needs identified and prioritised by caregivers. This model is built on the frameworks of cultural safety and comprehensive primary healthcare. I argue that in order for health professionals to work at the cultural interface they require a number of prerequisites, that must be built into health professional training, to facilitate reflexivity and the implementation of the principles of cultural safety. Further, I purport that health professionals need to be supported and enabled by factors across the entire health system to work at the cultural interface and to implement the principles of cultural safety and comprehensive primary healthcare. Given the 'lifestyle drift' away from these models of care in practice, I reason that re-orientation of the health system is required to enable and prioritise these approaches to healthcare.

10.2 The current cultural interface

In this section, I describe the elements of the current cultural interface as demonstrated by the data, with reflection on the enablers and barriers to healthcare access and effectiveness for Aboriginal peoples, which I summarised in the literature review. I have used this analysis to create a model of the current cultural interface, Figure 10.1.

I have deliberately emphasised the restricted space of the cultural interface in this representation to highlight the significant impact that the current power imbalances and wider socio-political factors across the health system have on the cultural interface. This depiction highlights that these factors are limiting the opportunities for Aboriginal people to voice their concerns and actively participate in healthcare interactions and for health professionals to collaborate effectively with caregivers. In order to expand the cultural interface, there must be action at a societal and health system levels to challenge and address the power imbalances and societal and professional discourses that compress this space and inhibit collaboration or the consideration of alternative knowledge and approaches. I discuss the components of this model in the following sub-sections.

As I discussed in Chapter 9, the sharing of knowledge at the cultural interface was compromised by inadequate collaboration between health professionals and caregivers. While caregiver’s demonstrated understanding of the recommendations of health professionals, the health professionals in this study were uncertain of the practices of caregivers or the determinants of these practices. The knowledge and practices of the health professional dominated and were privileged in the process of knowledge sharing, prioritisation of concerns and generation of solutions at an individual level. The dominance of Western approaches and priorities was also observed across the entire health system as the time and resources provided for healthcare, the setting in which interactions occurred, as well as the priorities and expected outcomes that shaped health professionals’ practices, were determined by health services, with little consultation with Aboriginal people or consideration of their needs.

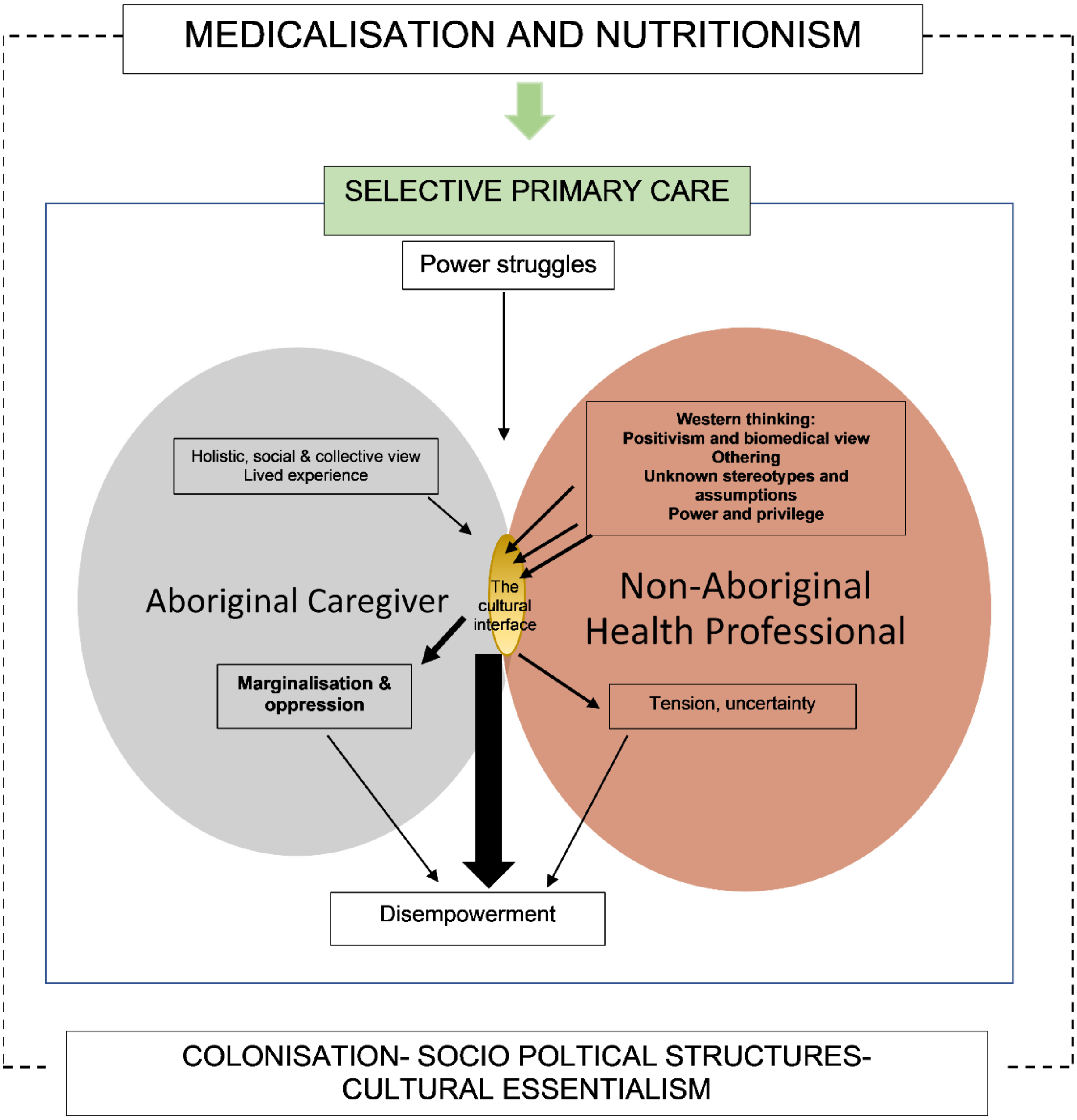


Figure 10.1 The current cultural interface

The power obtained by the health professional through this process acted to marginalise the knowledge of the caregiver and oppressed the caregiver's participation at the cultural interface. As such, not only were the needs of the caregiver not met, caregivers were disempowered to actively participate at the cultural interface through socio-political discourses of medicalisation, 'nutritionism' and essentialist views of culture, that I discussed in sections 5.2 and 4.4.3. These drove selective models of primary healthcare and reactive, standardised nutrition activities; which some caregivers actively chose not to engage with through refusing to attend the health clinic for non-urgent care or by limiting their participation in healthcare interactions. Although these actions may be seen as providing some agency, the power of the caregiver was limited to withdrawal from service provision, rather than influencing how and what occurred in healthcare interactions and whether the interactions would meet their needs.

Whilst health professionals' positions of power were reinforced through health service structures, they too were disempowered as they recognised that the nutrition activities they undertook were not meeting the needs of caregivers. The disempowerment of health professionals was illustrated by their inability to work in different ways, that aligned with their preferences and, which may lead to more collaborative interactions with caregivers and improved health outcomes.

10.2.1 Selective primary healthcare

Despite the presence of policies and frameworks at the national and territory level describing comprehensive models of primary healthcare, which I summarised in section 4.4.1, the nutrition activities that health professionals reported in this study, detailed in sections 8.5 and 8.6, were based on selective primary healthcare approaches. Activities were focused on the diagnosis and treatment of nutrition related medical concerns and few health promotion and prevention activities undertaken in partnership with the community.

Nutrition activities were primarily educational and were reactive to diagnosed anaemia and growth faltering, which were not identified as the main health concerns by caregivers or community members (section 7.3). 'Nutritionism', or a reductive focus on the role of nutrients on the body as I defined in section 5.2.2, was present in the delivery of standardised advice on what foods caregivers should provide, with little consideration to individual context or the determinants of feeding practices. The dominance of individualistic and biomedical views of health, or medicalisation, at health professional and service levels was evident in the use of data reports to prioritise service delivery and in health professional's reports of service expectations and demands for acute, clinic-based models of care. As I discussed in section

4.4.2, medicalised views of health and models of selective primary healthcare drive action towards individualised approaches to care and reduce focus on the context and determinants of health and nutrition practices. These models also support the dominance of the health professional and privileging of their ‘expert’ knowledge at the cultural interface.

10.2.2 Privileging of codified biomedical knowledge

The dominance of the health professional at the cultural interface was evident in the provision of one-sided health education based on the privileging of health professional’s biomedical knowledge as I detailed in section 9.3.2. Power for determining issues, relevance and meaning of knowledge and in the generation of solutions was maintained with the health professional. This acted to block the participation of the Aboriginal caregiver at the interface and marginalised their knowledge, which was often deemed irrelevant by the health professional, or was not trusted when compared to biomedical markers of ‘truth’.

The biomedical and scientific knowledge of the health professional, formally learnt during education and workplace training is codified knowledge. As described in section 9.3.3, using a positivist epistemology, health professionals prioritised and used this knowledge to validate their understandings. Codified knowledge was used to determine issues of concern and the information provided to caregivers, to the extent that this knowledge overrode the priorities of caregivers when they were voiced, for example when caregivers sought advice on cessation of breastfeeding or fussy eating. It also led to problematising and deficit views of knowledge and practices that did not align with those of the health professional through a process of Othering, which I outlined in section 9.3.2.

Tacit knowledge is a heterogenous concept which has acquired a diverse range of meanings, from knowledge that is inexpressible, to intuitive knowledge, or a description of how knowledge is applied (Eraut 2000; Nielsen 2002). Tacit knowledge is therefore described as problematic, both in its detection and representation (Eraut 2000). In the context of this thesis, I defined tacit knowledge as largely intuitive and learnt through experiences, both as individual activities and traditions (Eraut 2004; Nielsen 2002). This aligns with the views of Eraut (2004) that the acquisition and processing of tacit knowledge is implicit and is shaped by the social context including norms, values and culture. The gaining of tacit knowledge from others and application of one’s own tacit knowledge is therefore determined by epistemological standpoint and the perceived validity of the knowledge and is inherently open to bias and privilege as it is often used uncritically (Eraut 2004).

It was evident in this study that the tacit knowledge of caregivers was not actively sought by health professionals and arguably was not considered relevant, given the positivist epistemology demonstrated by health professionals. Therefore, determinants relating to the Indigenous determinants of health and the strategies applied by caregivers to respond to constraining determinants, were largely dismissed by health professionals, as an understanding of the individual lived experience was not actively sought. For example, important tacit knowledge such as the use of developmental indicators and the eruption of teeth, in guiding feeding decisions was not shared between caregivers and health professionals. This privileging of codified knowledge contributes to the loss and devaluing of Aboriginal knowledge, as Western knowledge sharing dominates health interactions. This is emphasised when Aboriginal knowledge is viewed from a problematic or deficit lens.

10.2.3 Power and dominance of the health professional

The non-Aboriginal health professional enters the cultural interface in a position of power granted to them by societal structures, as a member of the colonising group and their position as expert. In section 9.3.4, I outlined that socio-political structures, particularly in the context of colonisation, further supported and maintained the dominance of the health professional as historical and contemporary experiences with racism reduced the power of Aboriginal caregivers in interactions. The practices of most health professionals did not indicate an awareness of the impact of colonisation and power imbalances on their interactions. Therefore, attempts to increase the agency of the caregiver were not evident. Instead, the likelihood of engagement and 'compliance' was judged by health professionals based on Western interpretations of living circumstances and childrearing practices as I described in section 9.3.2. This acted to oppress the participation of some caregivers at the cultural interface before the interaction had even commenced and whilst some acts of agency such as boycotting access to services were described by some caregivers, for those who chose to engage with services the power to determine what knowledge would be prioritised and the role of the caregiver in decision making was held by the health professional

This Othering was likely unknown by the health professional and led to the labelling of cultural factors as deficits and problematic, thereby reinforcing the privileging of the Western knowledge and practices which were 'required' to address the identified concerns. Assumed knowledge and stereotypes of the cultural Other were applied to standardised modifications to be culturally sensitive, and paternalistic educational activities were undertaken using simplified language and concepts to address perceived knowledge, education and literacy deficits. Whilst these practices acted to maintain the dominance of the 'expert', as I reported in section 7.4, caregivers demonstrated that they did have knowledge of the recommendations of health professionals. The sharing or respect of caregiver knowledge was however inhibited by the dominance of the health professional whose control over the intercultural space determined who could participate in knowledge sharing and what knowledge was valued and privileged.

The impact of this oppression on the agency of the caregiver is clearly disempowering. However, despite their position of power, the tension and discomfort of health professionals and their felt inability to meet the needs of the caregiver, indicates that practices at the current cultural interface also disempowered the health professional. This was due to their inability to work in different ways that may better influence collaboration at the cultural interface and action on the determinants of feeding practices. This led to the implementation of practices that further oppressed the participation of the caregiver at the interface and practice inertia as health professionals stopped asking questions of caregivers, particularly when they were perceived as ‘difficult to engage’. The consequences of this disempowerment of both parties may have far-reaching impacts on relationships between health services and Aboriginal communities, health service access, health professional retention and ultimately, the health outcomes of Aboriginal children and their families.

10.3 The optimal cultural interface

The optimal cultural interface, which I illustrate in Figure 10.2, builds on the concept of the cultural interface described by Martin Nakata, which I introduced in section 5.6. It is a place of collaboration in the sharing of knowledge, where all knowledge is respected, valued and considered and where both groups collaborate to develop approaches and solutions that are prioritised to meet the needs of the caregiver. As stated by Catherine Morley in Critical Dietetics and Critical Nutrition Studies (2019 p71)

> To be relevant and appropriate, nutrition care planning and implementation, and nutrition education and counselling involve blending the experiences, preferences, and declared needs of clients and families with nutritional/medical standards of care. Lived experiences of patients, clients, and communities mingled with the learned experiences of practitioners and clinicians are integral to the co-production of knowledge that informs clinical nutrition practice

The optimal cultural interface offers a more holistic approach to working with Aboriginal caregivers. It provides opportunities for health professionals to truly collaborate with Aboriginal caregivers at the cultural interface, so that they can co-create innovative and meaningful solutions to health and nutrition concerns, that meet the needs of caregivers and therefore improve or enhance wellbeing, often of whole family groups. These new ways of working at the cultural interface are potentially transferrable across all inter-cultural settings and could lead to transformative modifications to health practices, that empower both caregivers and health professionals.

Given the power held by the non-Aboriginal health professional at the cultural interface and the impact of this in oppressing the participation of the caregiver; the health professional needs to reduce their position of dominance and shift power to the caregiver to enable the caregiver's participation and to foster collaborative approaches. This transfer of power is necessary if trusting relationships with caregivers are to be established and will require the health professional to relinquish their position as expert, delay their own priorities and privilege the knowledge of the caregiver as they seek to understand the context, views, practices and determinants of health and nutrition, from the perspective of the caregiver. Given the importance of individual context and the role of social groups in determining feeding practices, as I illustrated in section 9.3.1, this process must be centred with both individuals and wider family groups.

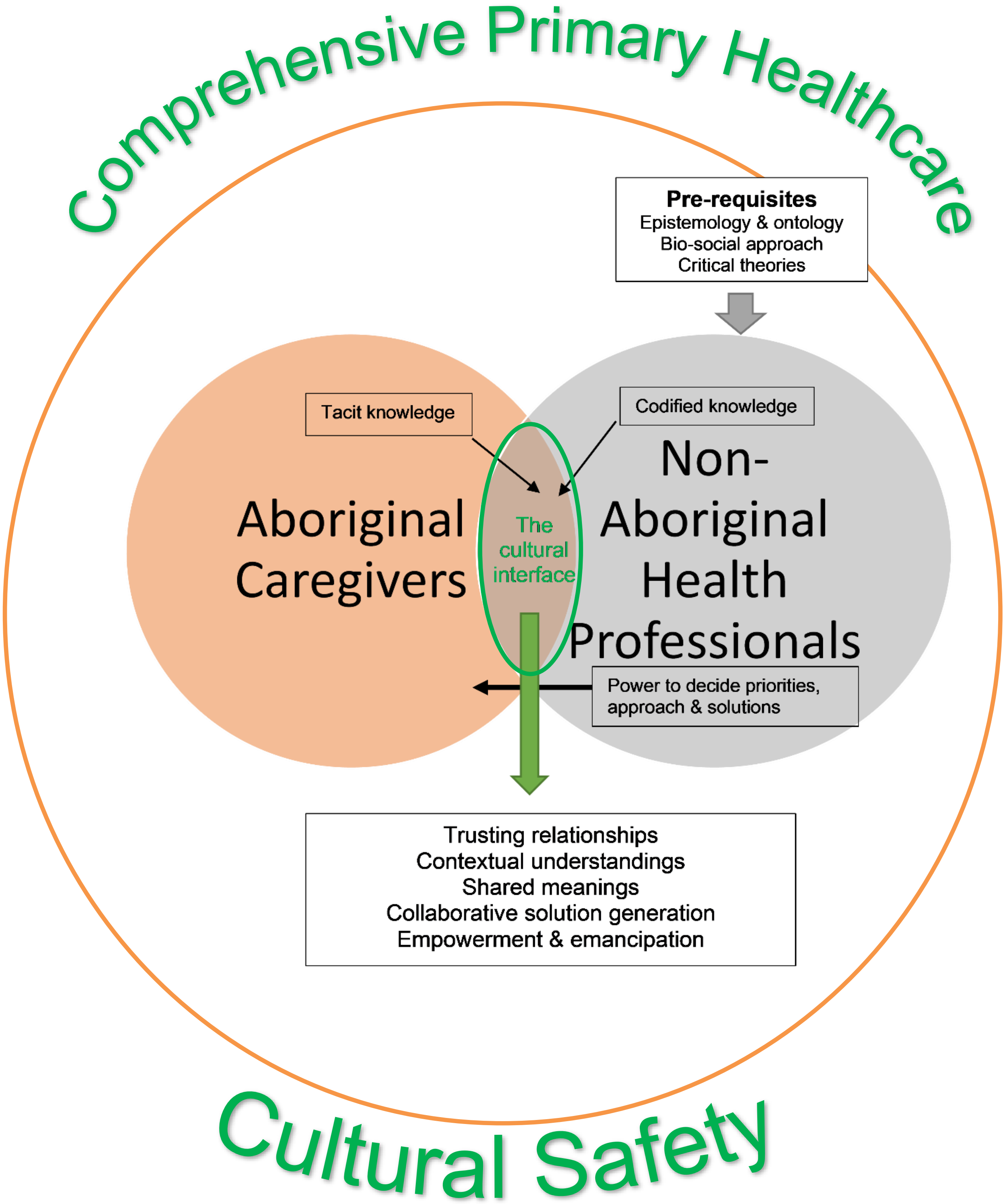


Figure 10.2 The optimal cultural interface

The assumptions of the health professional are generally applied uncritically, particularly in situations where a person feels overworked or alienated (Eraut 2004). This acts to privilege the intuitive understandings of the health professional, promote the transmitting of codified knowledge and inhibit the seeking of tacit knowledge from caregivers. Therefore, health professionals need to critique and be reflexive of their application of assumed and codified knowledge. It is also important for health professionals to expand their epistemological standpoint (Nielsen 2002) in order to understand and de-prioritise their ‘known’ knowledge and to seek and respect the tacit knowledge of the caregiver. Codified knowledge and the tacit assumptions of the health professional can act as a prompt to explore factors with other people and to seek areas of agreeance or divergence in knowledge. However, its application and suitability to the individual and family context needs to be determined by the caregiver, not the health professional. Time for repeated interactions to enable the development of trusting relationships and a safe space in which knowledge can be exchanged and negotiated are required for the sharing of tacit knowledge (Collins & Hitt 2006).

The transfer of power and meaningful collaboration that is required at the optimal cultural interface requires reflexivity of the health professional and aligns with the principles of cultural safety and comprehensive primary healthcare as I described in Chapter 4. However, given the actions of the socio-political discourses on the practices of both health professionals and health services, that lead to the dominance of the health professional and drive the selective primary healthcare activities described at the current cultural interface; I argue that health professionals require a number of pre-requisites that will enable reflexivity and the implementation of these models of care in practice. Further, health systems will require re-orientation to prioritise the integration of these pre-requisites into health professional training and the actioning of the principles of comprehensive primary healthcare and cultural safety at the health service level; beyond their current stagnation at the health policy level.

In Table 10.1, I summarise:

- The responsibilities of the wider health system, including health services and universities, in facilitating the implementation of the principles of cultural safety and primary healthcare at a practice level. Thereby enabling health professionals to work at the cultural interface.
- The responsibilities of the health professional when working at the cultural interface
- The roles of Aboriginal peoples at the cultural interface (the current oppression of Aboriginal peoples’ participation at the cultural interface first needs to be addressed)
- A series of recommendations for how these responsibilities can be facilitated

Table 10.1 Recommendations for the implementation of the optimal cultural interface

Responsibility	What is required	How to facilitate	Relevant Section
Health system (enable the training of health professionals beyond biomedical models and facilitate and instil the application of comprehensive primary healthcare and cultural safety across the entire health system)	• Apply, monitor and evaluate the principles of cultural safety and comprehensive primary healthcare at a whole of system and organisational level in order to support their implementation at a practice level • Develop and implement governance and monitoring frameworks that enact cultural safety and comprehensive primary healthcare across the health system • Embed competencies for working at the cultural interface, reflexivity, cultural safety and comprehensive primary healthcare across the health system • Re-develop funding structures and service indicators to support health services to enact cultural safety and comprehensive primary healthcare	• Integrate competencies into entry level and ongoing accreditation requirements of health professional registration bodies • Develop flexible and long term funding cycles that allow for responsiveness to community needs and integrate requirements for active collaboration with communities • Develop service indicators and performance frameworks that guide and monitor the application of principles of comprehensive primary healthcare and cultural safety • Integrate monitoring criteria for cultural safety and comprehensive primary healthcare into health service accreditation and standards to ensure accountability for integration into practice	0 10.4.1
Health Service (support and enable the application of comprehensive primary healthcare and cultural safety into practice)	• Implement a service framework that actions comprehensive primary health care • Support and enable health professionals to undertake reflexivity and apply the principles of cultural safety • Acknowledge and act on structural determinants that facilitate structural violence and racism and act to marginalise Aboriginal peoples	• Provide opportunities for mentoring and professional development. Integrate competencies relating to these skills and knowledge into workplans and career progression frameworks • Facilitate service provision in culturally safe and welcoming environments • Provide adequate time and resourcing to support activities that align with comprehensive primary healthcare and cultural safety • Enable and support health professionals to work with Aboriginal health staff and in multi-disciplinary teams • Facilitate alternative models of care beyond individual education models that engage family and community groups and address determinants of health/nutrition, including Indigenous determinants • Support staff to advocate through health leaders for action on macro level determinants of health through the health system and in cross-sectorial collaborations to address local concerns • Develop and implement pathways for the reporting and action against behaviours and activities of racism and structural violence	10.4.2.1 10.4.2.2

Universities (preparation of health professionals with the pre-requisites to work at the cultural interface)	• Train health professionals in ontology and foster an inter-epistemological approach • Train health professionals in critical and social theories, the historical-socio-political context of health and the impact of their own culture on knowledge and practice • Train health professionals to adopt a biopsychosocial view of health	• Inquiry based learning • Multi-disciplinary teaching to expose students to a diversity of knowledge, practices and multi-disciplinary approaches • Prioritise critical appraisal skills and rhetorical argument skills • Include topics on structural competencies including history of colonisation, socio-political influences and structures on healthcare provision	10.5.4
Health Professionals (build and apply skills and knowledge and adapt actions to work at the cultural interface)	• Build and maintain trusting relationships with caregivers and community members to enable their participation at the cultural interface • Be open to and respect alternative knowledge and practices, engage in knowledge sharing and collaborate to create shared understandings • Engage beyond individual models of care to be inclusive of collective models of health/wellbeing and caregiving • Seek knowledge on individual context, knowledge, practices and determinants- look inwards at the lived experience, consider diversity within groups • Critique own knowledge and practices for assumptions and privilege • Aim to shift power to enable the participation and collaboration of caregivers and responsiveness to caregiver/community priorities • Identify and act on structural inequities, structural violence and racism • Seek strength based approaches and explore the modifications of individuals to context, critique deficit approaches	• Apply an inter-epistemological and trans-theoretical approach to practice • Undertake reflexivity of knowledge and practice • Apply the principles of cultural safety • Apply principles of comprehensive primary healthcare • Work as part of and collaborate with a multi-disciplinary team, which includes Aboriginal health staff and the caregivers • Acknowledge and act on behaviours and activities of racism and structural violence • Advocate for social justice and equity	10.5
Aboriginal peoples and communities (collaborate with health professionals to share knowledge, create shared understandings and develop solutions)	• Voice what is needed to enable participation at the cultural interface (e.g. safe place, interpreters) • Engage in the sharing of knowledge and creation of shared understandings • Voice priorities and preferred solutions • Negotiate with and guide health professionals and health services in what is needed to address concerns and enact preferred solutions	• The dominance of health professionals and health systems at the existing cultural interface blocks Aboriginal peoples from engaging at the interface. It is the role of health professionals and health systems to adapt their practices and shift power to enable this participation in the first instance	Health professionals first need to recognise and shift power to address the oppression and marginalisation of Aboriginal people and alternate knowledge

In the following section I discuss why the optimal cultural interface is embedded into a culturally safe, comprehensive primary healthcare system and highlight why and how health systems/services must support and enable health professionals to undertake reflexivity. I then outline the pre-requisite skills and knowledge required by health professionals to work at the optimal cultural interface, undertake reflexivity and implement the principles of cultural safety and provide recommendations as to how these could be implemented in health professional training and ongoing professional development.

10.4 Comprehensive and culturally safe primary healthcare systems

Enactment of the principles of comprehensive primary healthcare and cultural safety enables health service provision that is contextualised to local and individual needs, is holistic and addresses the determinants of health behaviours. It engages and empowers the caregiver through respecting and prioritising the worldview, priorities and lived context of the caregiver and shifting power to promote the caregiver's participation, sharing of knowledge and decision making at the cultural interface.

In section 0, I describe the skills and knowledge required by health professionals to work at the optimal cultural interface and to enact the principles of cultural safety and comprehensive primary healthcare. However, whilst the training and reflexivity of health professionals can lead to collective action and advocacy to enable work at the cultural interface, the practices of health professionals are predominantly at the mercy of the health system and are directed by resourcing, policies and service indicators. Supportive health structures are therefore needed to enable and promote the work of health professionals at the cultural interface.

As such, the optimal cultural interface is embedded into and supported by a comprehensive and culturally safe primary healthcare system. In sections 4.4.1 and 4.5.2 of the literature review, I outlined the principles of cultural safety and comprehensive primary healthcare and described the extensive literature which documents the benefits of these approaches in increasing access to healthcare for Aboriginal peoples. As illustrated by Figure 10.3, the principles of primary healthcare and cultural safety align not only with the enablers of access to healthcare but also with the characteristics of effective health and nutrition interventions, which I summarised in section 4.6.1.2. Hence, there is substantial evidence to support the argument that situating the optimal cultural interface within a health system that implements the principles of both primary healthcare and cultural safety, at the whole of organisation/system level and in practice, will improve health service access and effectiveness.

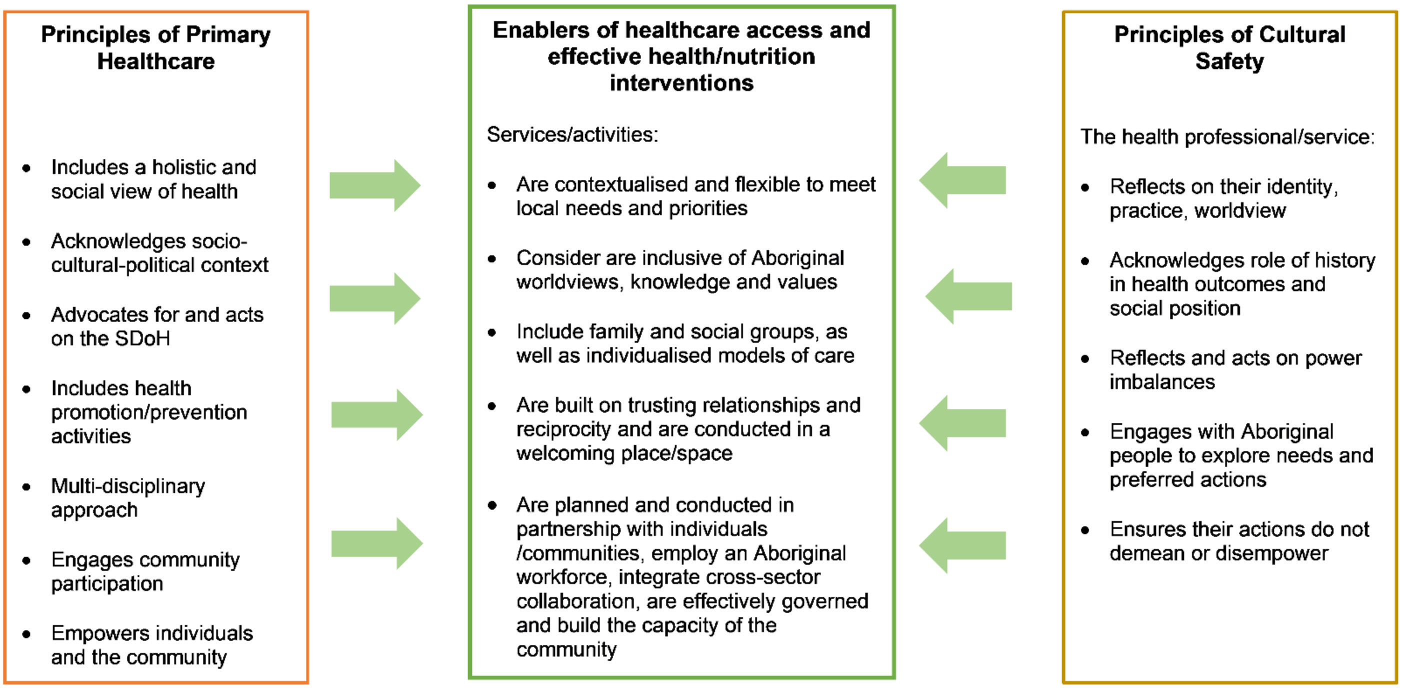


Figure 10.3 Principles of comprehensive primary healthcare and cultural safety

(Southgate Institute for Health Society and Equity 2019; Taylor & Guerin 2019)

10.4.1 Facilitating the optimal cultural interface at the health system level

As I have highlighted previously, comprehensive models of primary healthcare are promoted in current health policies, however as evident by the current cultural interface, in practice health service provision is based on selective primary healthcare that promotes the dominance of the health professional and marginalisation of the caregiver at the cultural interface. As I outlined in section 4.4.2, the lifestyle drift towards these selective models of primary healthcare have been widely reported across Australia and are reported as challenging to disrupt, due to the socio-political factors influencing the funding and resourcing of health service provision (Baum 2011).

There is a similar stagnation for the implementation of cultural safety beyond the policy level. Cultural safety, as I described in section 4.5.2, moves beyond an awareness of culture to a reflection of the health professional’s own culture, identity and position of power and privilege in interactions with Aboriginal peoples. There is little guidance on how to apply cultural safety and Canadian researchers have noted that critical knowledge translation from research to practice is complex (Anderson et al. 2010; Browne et al. 2009), as the development of 'actionable' messages that can be translated into practice are difficult to establish (Anderson et al. 2010). Most strategies to implement cultural safety are currently focused at the individual level, through training, and there is minimal knowledge of how to embed cultural safety into health organisations and systems (Brascoupé & Waters 2009; Freeman et al. 2014); despite a call for the extension of the construct into this space (Heke, Wilson & Came 2018; Laverty, McDermott & Calma 2017).

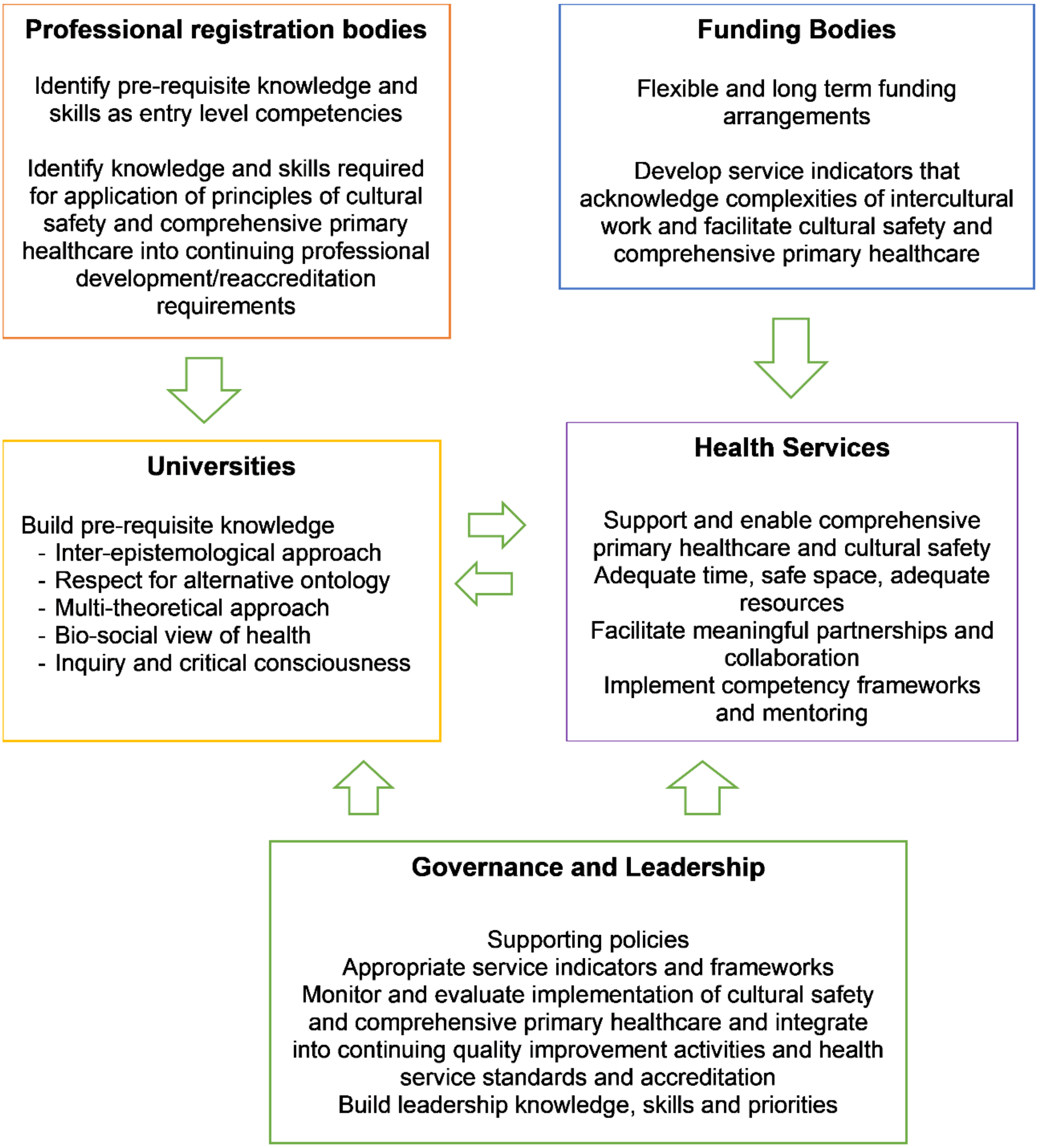
Actioning comprehensive primary healthcare and cultural safety beyond the policy level will require a re-orientation of the wider health system. I propose that a range of governance strategies, which I illustrate in Figure 10.4 are required across the entire system to support the implementation of the principles of comprehensive primary healthcare and cultural safety at a practice level. These include:

- **Re-orientation of health professional training** through integration of competencies relating to the skills and knowledge required to implement the principles of cultural safety and comprehensive primary healthcare into entry level registration, annual registration/ accreditation, continuing professional development and career progression requirements. These include the pre-requisite skills and knowledge that I discuss in section 10.5.

- **Flexible, long-term funding models** that provide adequate time for meaningful community partnerships and collaboration and allow responsiveness to community contexts and needs through appropriate service indicators

- **Designing of service resourcing/key performance indicators** that monitor and promote actions that align with the implementation of the principles of comprehensive primary healthcare and cultural safety. These could include recognition of activities that engage with the community in the planning, implementation and evaluation of health interventions, number of cross-sectorial projects, data reports on health determinants as opposed to medical outcomes

- **Health service quality and accreditation standards** that increase the accountability of health services in enacting these models of care by relating funding and accreditation standards to cultural safety and community partnership indicators



Professional registration bodies

Identify pre-requisite knowledge and skills as entry level competencies

Identify knowledge and skills required for application of principles of cultural safety and comprehensive primary healthcare into continuing professional development/reaccreditation requirements

Funding Bodies

Flexible and long term funding arrangements

Develop service indicators that acknowledge complexities of intercultural work and facilitate cultural safety and comprehensive primary healthcare

Universities

Build pre-requisite knowledge
- Inter-epistemological approach
- Respect for alternative ontology
- Multi-theoretical approach
- Bio-social view of health
- Inquiry and critical consciousness

Health Services

Support and enable comprehensive primary healthcare and cultural safety
Adequate time, safe space, adequate resources
Facilitate meaningful partnerships and collaboration
Implement competency frameworks and mentoring

Governance and Leadership

Supporting policies
Appropriate service indicators and frameworks
Monitor and evaluate implementation of cultural safety and comprehensive primary healthcare and integrate into continuing quality improvement activities and health service standards and accreditation
Build leadership knowledge, skills and priorities

Figure 10.4 Health system governance

10.4.2 Facilitating the optimal cultural interface at the health service level

10.4.2.1 Facilitation through health service structures

To support health professionals to work at the cultural interface and to implement the principles of cultural safety and comprehensive primary healthcare, health services need to provide adequate time for health professionals to build and maintain relationships, to share knowledge and to collaborate. This needs to be supported with a safe and welcoming place in which to meet with caregivers, including at homes and community settings, and flexibility to prioritise the issues of concern to the caregiver and to develop innovative solutions. Adequately resourced and supported multi-disciplinary care models, including adequate employment, support and engagement of Aboriginal staff (both as registered and non-registered health workers), needs to be further developed.

Whilst primary care services that focus on the diagnosis and treatment of disease are necessary, greater emphasis needs to be placed on health promotion activities that incorporate a more social view of health, are community based and foster collaboration with the community and cross-sector agencies. Recognition for the skills and the alternative approaches needed to facilitate comprehensive primary healthcare needs to be provided in conjunction with adequate resourcing and appropriate service indicators that monitor, evaluate and report on non-medicalised activities. The prioritisation of these activities likely needs a dual model, as I have illustrated in Figure 10.5, in which the current biomedical model is supported by a team of staff who are skilled in social approaches to health and supported to work collaboratively as multi-disciplinary teams, with the community, in community based settings with family and community groups to assist in the implementation of community-led initiatives that address local health and nutrition concerns.

Health professionals need to be guided and supported with toolkits and resources to work with the community on activities that address the determinants of practices at the lived context at the household and community level, for example promoting and enabling social networks and acting on health hardware concerns. However, these toolkits cannot be prescribed generically and health professionals must be reflexive on their use and relevance to individual context, that is the social world of the caregiver. Action on determinants must be community guided and extend to be cognisant of the view of the determinants as seen and prioritised by Aboriginal peoples, including the Indigenous determinants of community and culture, which were prioritised by the caregivers in this study and identified in the wellbeing framework (Cairney et al. 2017), that I described in section 2.6. The political influence of health needs to be recognised through the development of advocacy pathways that support health professionals to act up through the health system and out through cross-sector stakeholders to address macro level determinants.

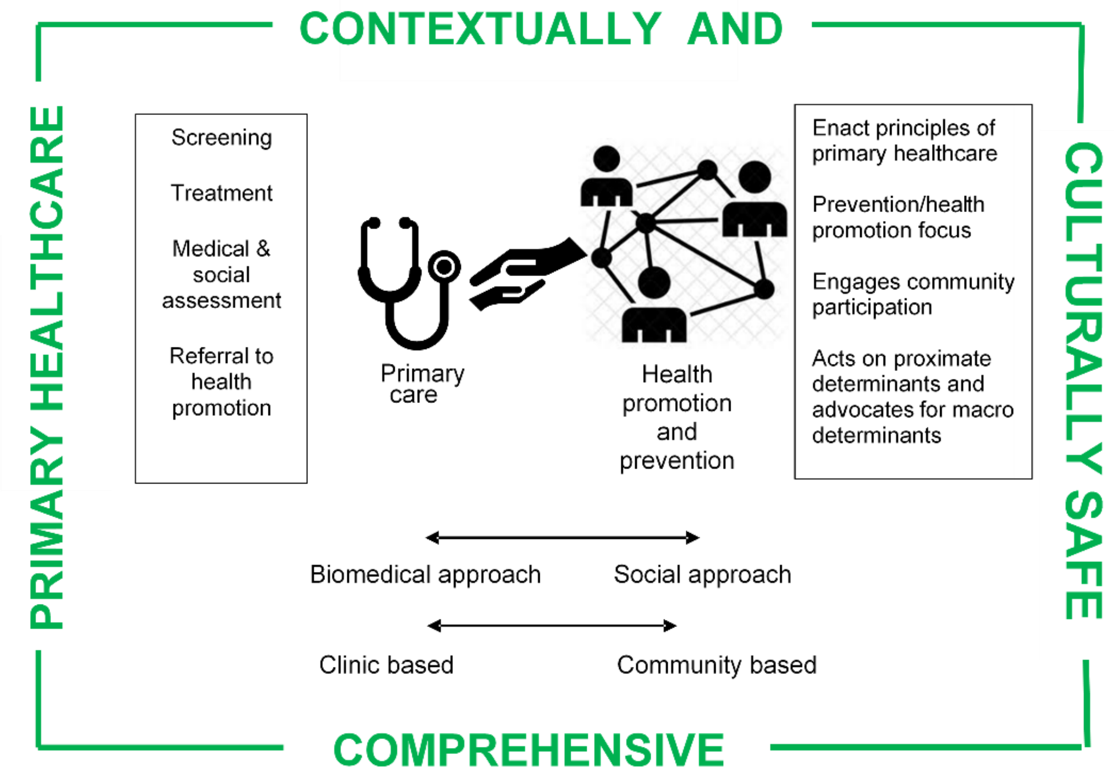


Figure 10.5 A dual model of comprehensive primary healthcare

10.4.2.2 Support of health professionals at the health service level

The cultural interface is a place of tension (Nakata 2010) and the health professionals in this study voiced tension and uncertainty in their work, that mirrors the experiences of health professionals described in other studies (Bennett, Zubrzycki & Bacon 2009; Taylor 2010; Thomas, Gray & McGinty 2011; Wilson 2011). Whilst a tolerable level of discomfort has been posited as creating unlearning that in turn promotes change (Churchill et al. 2017), positive experiences working with Aboriginal peoples, reflexivity and knowledge of the impact of colonisation and the socio-historical context of health behaviours have been reported to facilitate more effective and skilful work in cross cultural interactions (Wilson et al. 2016).

Better preparation of health professionals to work at the cultural interface may assist in alleviating some level of discomfort and promote confidence in knowledge sharing and collaboration and I discuss this further in section 10.5. However, the health professionals already working in the system also need support to work at the optimal cultural interface and various authors have argued that training alone is insufficient to support health professionals to apply the principles of cultural safety. Hence, health services need to support health professionals in culturally safe practice through other actions such as cultural mentoring (Heke, Wilson & Came 2018) and reflexive practice (Wilson 2014).

Reflexivity is a key principle of cultural safety and is crucial for working at the optimal cultural interface as health professionals are required to reflect on their own culture so that they can recognise and act on power imbalances, the actions that privilege and promote the dominance of the health professional and their knowledge at the cultural interface, and the presence of discourses that lead to Othering. My own experiences of reflexivity during this research, in particular when I reflected on my position of power and the influence of this on my practices, was challenging and confronting. I acknowledged my own withdrawal from the cultural interface at times of uncertainty and the ways this acted to further oppress the participation of caregivers.

> ‘I was thinking today about the different ways that I interact with the caregivers in the study compared to when I was working in community. Now we sit down together and talk, the conversation moves between that associated with the study and the general goings on in life, around the community. Out of the blue Cherie pulled me aside outside the shop today to talk about Lewis’s fussy eating, he was holding a small juice and she told me that was all she could get him to eat lately. He wouldn’t eat the food she cooked, wasn’t eating at childcare and she was getting really worried about him. She asked for some recipes and other food ideas, but I started to talk to her more about why she was worried and how he was acting at mealtimes, how she responded when he refused food. Eventually she decided that it was no good bringing him to the shops because he’s just gonna get what he wants there. In the past I would have checked what foods she was giving and tried to come up with some similar options that he might like to eat, found the recipes like she had asked, but this felt better today, it didn’t feel forced, and she asked me! A change from the days when you met a mum at the fence of the house and tried to pry information from her about why her child was not growing well and ended up giving her some ideas on high energy/nourishing foods to provide….’ (reflexive journal, September 2017)

This tension was relieved, and I was able to move beyond mere reflection on the issues of concern, to facilitating changes to my practices, through the guidance and support of my mentors. From my own experiences, both in this study and in mentoring health professionals, mentors from the same cultural group and from other cultural groups are crucial in facilitating skilful reflexivity of practice. The dual mentor process prompts practice based reflection in which health professionals can deconstruct the impact of their own culture in a safe environment with mentors from the same cultural group; and seek knowledge on the impacts of practices on people from other cultural groups, share new knowledge and collaborate on novel approaches in a safe environment with mentors from other cultural groups.

Health services need to support health professionals in their implementation of reflexivity through the enabling of mentoring partnerships and the integration of mentoring requirements into professional supervision and continuing professional development requirements. This will reduce the risks posed by many current cultural awareness training programs and in self-directed reflexivity which I described in section 4.4.1, including increased Othering and heightened tension and feelings of guilt in response to an awareness of the roots of inequities and the position of privilege of the health professional; that lead to resistance, inaction or rescuing paternalism (Downing & Kowal 2011; Kowal, Franklin & Paradies 2013).

10.5 Pre-requisites to enable health professionals to work at the cultural interface

Before health professionals can apply the principles of cultural safety and comprehensive primary healthcare and therefore work at the optimal cultural interface, I propose that they will need to widen their view and approach to health and healthcare interactions and understand their position of power and privilege. This will require a change in epistemological approach, beyond positivism, an appreciation for other ontologies and the adoption of a more holistic and social view of health; so that health professionals can be open to new knowledge, appreciate the importance of context and individual lived experience and the expertise of the caregiver in determining solutions that best meet their needs. In the following section, I outline the knowledge and skills required by health professionals, before detailing recommendations on how universities can alter or expand their current approaches to the training of health professionals.

10.5.1 Epistemology and ontology

The health professionals in this study displayed a positivist epistemology of practice, which led to the privileging of biomedical views of health and the discarding of non-scientific knowledge at the current cultural interface. Positivism, through its understanding of one objective truth (Gingras 2010), blocked the seeking of knowledge from caregivers and the appreciation of other ways of knowing and doing. It also led to the mistrust of knowledge that did not align to biomedical indicators that were seen as ‘correct’ and ‘valid’. Thereby the privileging of the health professional’s knowledge, which was viewed as essential in determining issues of concern and solutions, was reinforced and the marginalisation of the knowledge of the caregiver and the deeming of this knowledge as invalid or deviant was permitted. The dismissal of alternative knowledge was heightened when combined with essentialist views of culture which increased the problematising and deficit views of knowledge and practices that differed from those of the health professional. Positivism therefore reinforced the position of power and dominance of the health professional and importantly also prevented the health professional from acknowledging their privilege, as a positivist approach is seen as free from bias; hence it acts to block reflexivity and analysis of the role of one’s own culture and identity on interactions, an important principle of cultural safety.

As I discussed in section 5.2, health and nutrition practices have increasingly aligned with positivist approaches as there has been a movement away from the social sciences towards biomedical understandings (Gingras & Brady 2010; Löwy 2011). Health professional training has aligned with this movement and is also dominated by positivism (Buchanan 1998, 2006; Lordly, Lövestam & Ruhl 2019). This has been reported to lead to reductionist ‘nutritionism’ approaches (Gingras & Brady 2019), which were evident in this study as health professionals largely ignored the lived experience and context of health practices and did not understand the complexities and interplay of concepts and determinants of health and wellbeing, thereby indicating a narrow ontological stance.

Aligning with epistemology and the ability of health professionals to seriously consider alternative knowledge, is an understanding of ontology. I believe that it is essential that health professionals are able to interpret their own ontological position and to appreciate the presence of alternative ontologies, particularly when working in intercultural settings, this should not be limited to binary contrasts. Instead, a critical ontological awareness assists the health professional to undertake reflexivity in understanding who they are (political, socially, culturally and traits such as gender), how this influences their ways of being in the world and how they perceive other ways of being, how they view health and how their practices as a health professional are shaped by power, privilege, dominant cultural perspectives and historical-socio-political factors. It promotes a recognition of and respect for differing ontologies and moves the health professional beyond a state of ‘routine practice’ to appreciate that a synergy of different approaches and understandings offer rich insights and novel solutions that are greater than those offered by one single approach.

Rather than limiting health to physiological understandings which privilege biomedical knowledge, this opens the health professional to explore and prioritise context and lived experience and promotes an understanding of the complexity and interplay of multi-layered contexts, meanings and determinants on health and wellbeing. Respect for ontological frameworks is necessary if the Indigenous determinants of health are to be fore fronted and for health professionals to turn their gaze not only to the macro level influences of the determinants on health and nutrition practices but to explore how these play out in daily life.

Only by appreciating the diversity of realities and constructs of wellbeing will health professionals be able to work at the cultural interface and acknowledge the biases and dominant positioning that prevents their true engagement and collaboration with Aboriginal peoples. Recognition of this bias is essential before health professionals can truly explore concepts of power and acknowledge, deconstruct and act on the structures and discourses that are promoting their dominance at the cultural interface at interpersonal and systemic levels. Then they will be ready to challenge and move beyond positivism and seek and respect knowledge outside of the codified knowledge they have been taught during their education.

My own reflexivity on the importance of ontological and epistemological position began early in my research planning, with the guidance of my supervisors. I had not been trained in epistemology and ontology and struggled initially to understand the concepts. I identified my own positivism and deconstructed the impact of this on my practice and planned research before exploring alternative epistemologies, which as I discussed in Chapter 6 led to an alteration in the design and approach to this research. This was critical in allowing me to work at the cultural interface. I achieved this epistemological shift through reading about ontology and epistemology, mapping these against my understandings and practices and reflecting on ontological and epistemological positions when critiquing others research, across a range of disciplines and methodological approaches. I outline how this can be integrated into health professional training in section 10.5.4.

10.5.2 A biopsychosocial approach

Once health professionals have adopted an inter-epistemological approach and respect for different ontologies, they will be more open to the diversity of knowledge and practices that are used and prioritised to obtain and maintain health and wellbeing. This will allow health professionals to be trained in and exposed to a variety of knowledges and practices so that they can adopt a more holistic and social view of health, that better aligns with caregiver's understandings.

As acknowledged by the authors of the Declaration of Critical Dietetics (Coveney & Booth 2019 p9), a number of lenses are required to "appreciate the richness of meaning that food, nutrition and health have for people". Only one of these lenses is biomedical. As I reported at the current cultural interface, health professionals were only applying a biomedical lens to their work, which led to the implementation of reductionist 'nutritionism' views of nutrition and the seeking of knowledge and provision of solutions that were targeted to and addressed physiological concerns. Health professionals did not understand or prioritise the social view of health and child feeding held by caregivers and did not place importance on the context or individual experience of caregivers. Whilst the feeding environment and interactions between the child and caregiver were integral in influencing the feeding practices of caregivers, these social factors were not adequately considered and health professionals focused on Western understandings of material constraints as key determinants.

I support the growing movement of researchers calling for the use of social theories to guide understanding of eating as a social process (Amir 2011; Delormier 2010; Neuman 2019; Schubert et al. 2012; Travers 1997), which promotes a greater understanding of how individual's eating patterns respond to others around them and are shaped by the conditions or socio-cultural-political context in which people obtain and consume foods. A more social view of health and nutrition would assist health professionals to re-orientate their knowledge collection and hence nutrition activities, towards a greater focus on the context, determinants and lived experience of feeding children, as opposed to the current focus on what is consumed. It would also prompt an exploration of how food is obtained, prepared and consumed, allowing health professionals to gain an increased understanding of why certain foods are or are not provided. Caregiver feeding practices and the family food environment would be granted greater relevance, allowing the uncovering of determinants such as child development and child behaviour, which were the key factors influencing feeding practices as described by the caregivers in this study. As such, a social approach to health and nutrition directs more attention to the proximal determinants at the individual and household level and would guide health professionals to collaborate with caregivers on solutions that are within the scope of health professionals to support action on. This includes action such as working with the store to ensure access to cheap food storage containers or supporting the community to advocate for healthier ready-made food options.

The application of a social view of health and nutrition should be applied to extend the medicalised knowledge currently presented in the nutrition literature, which are primarily individualised educational activities aimed to promote behaviour change (Foley 2010; Jongen et al. 2014). Public health approaches are mostly limited to store and setting based initiatives in which educational activities are complemented by policies that aim to promote intakes of healthier food choices through pricing strategies, nutrient criteria and promotion/placement strategies (Lee & Ride 2018b). Whilst a lack of functioning health hardware is recognised as a common barrier to the consumption of healthier foods, these interventions continue to place responsibility on the individual to store, prepare and cook foods in an environment that does not support these actions. Similarly, a number of interventions with Aboriginal communities promote the consumption of ‘bush foods’ with little regard for the availability, skills and resources required to access to these foods, or the wide-reaching impacts on components of wellbeing associated with an inability to consume these foods. A social approach to health and nutrition needs to consider wider influences than the original concepts of the SDoH, to prioritise the lived experiences of caregivers in solution generation and to recognise the interplay of determinants with other aspects of life and wellbeing.

Prior to this study, I had worked in health promotion and primary healthcare positions for a number of years and developed a good understanding of the SDoH and socio-ecological theories and models, which I used to plan and implement nutrition activities. I assumed I held a social view of health and I tried to prioritise working in the community and health promotion activities, despite health service demands for clinical services. On reflection, I noted that the activities that I conducted as health promotion interventions most likely did not meet the needs of caregivers, they were targeted to the issues of concern that I saw in my clinical practice and were shaped by my Westernised understandings of determinants. This was one of my sources of tension that led to this research.

It was not until I moved towards a social constructionist approach and began to read more widely from a diverse range of sources that I extended my view of health and nutrition to a more holistic approach. I had already considered influences, such as caregiver feeding practices on children's dietary intakes; but I now prioritised knowledge of the eating experience over that of the type of food consumed. I became more in-tune to caregiver discussions about children's development and behaviour, social relationships, reciprocity and other factors that I had previously glanced over but had not recognised their importance. This enhanced my exploration of the lived experience of obtaining, preparing, providing and consuming foods. I was able to work with caregivers to understand how factors such as reciprocity acted to relieve food security concerns but continued to limit the types of foods that could be purchased when there were money concerns; or how caregivers responded differently to children's demands for foods, dependent on the health of the child or the money available. I could see the strengths of caregiver's practices and the modifications made to enable preferred feeding decisions in response to the context at that point in time. I re-prioritised what I thought was important knowledge and in the process caregivers started to tell me about how feeding occurred, their concerns and how these affected their practices. My understanding of feeding practices grew and caregivers guided me on the solutions they needed, what information they needed and how I could assist.

> " I was talking with Sharna today about cooking at home, it started with a question about whether she cooked and what types of foods she would cook, but then she started to tell me about the cockroaches in the pantry and how the rice she had bought had become contaminated and she had to throw it out. She does not have any storage containers and tries to just fold the bags over, but the pests eat through them. She has seen some storage containers at the store before, they are not there all the time, but they are too expensive for her to buy anyway. We go up to the store to have a look and there are some there for $25, I am sure they are about a quarter that price in Alice Springs! We talk about other containers you could use to store things in, but most of the products she buys are in tins or bags, not really reusable containers. She tells me that someone else got some old lolly jars from the store once and they were good to put things in, she asks if I could ask the store manager for some. No luck, there are none there at the moment, they say they will put some aside for her…" (reflexive journal, July 2017)

Health professionals do not need to completely step away from biomedical understandings and medicalised knowledge of health and nutrition is important in preventing and treating the health conditions and risks described in the literature. Any movement away from medicalised understandings is likely to be challenging and there are numerous political barriers, such as the neoliberal discourses (Carlsson, Mehta & Pettinger 2019), social and professional discourses and hierarchies of power and knowledge that inform health system directions and resourcing that need to be overcome (Lemke & Delormier 2017). However, a biopsychosocial approach to health, which considers concepts from biomedicine and psychology, but forefronts knowledge and theories from sociology (Harris & McDade 2018) would allow health professionals to increase knowledge of the meanings and experiences attached to foods and the social environment and context in which food practices occur (Amir 2011). This approach allows health professionals to move between knowledge systems to enable greater participation at the cultural interface and in the application of comprehensive primary healthcare as medicalised knowledge may be prioritised in response to acute treatment needs and a more social approach prioritised in health promotion and prevention. This approach aligns with the model of comprehensive primary healthcare that I proposed in Figure 10.5. I discuss how to integrate it into training in section 10.5.4.

10.5.3 Multi-theoretical approach

The practices of health professionals in this study were guided by health behaviour theories, which as I reported in section 0, are commonly applied, often unwittingly, by health professionals to their practice. As I described in the literature review and documented in this study, the reliance on these theories supports deficit views of caregivers' knowledge and skills and reinforces the provision of one-way nutrition education. This further promotes the dominance of the health professional and their knowledge at the cultural interface and reduces the focus of a social view of health, context and determinants, in preference for reductionist 'nutritionism' approaches.

The power of the health professional at the cultural interface and the privileging of their knowledge appeared to be unknown to health professionals in this study and health professionals did not overtly acknowledge the structural barriers to health service access for caregivers, but 'blamed' caregiver's for non-participation. It was my exposure to critical theories that prompted a significant shift in my own practices and enabled my work at the cultural interface to change. Through critical theories I was able to explore and understand, not just at face value, the wider socio-political context, the historical and contemporary structures of colonisation and the social discourses leading to Othering and individualism. This was the turning point in truly undertaking reflexive practice and my ability to apply the principles of cultural safety. Hence, I argue that knowledge and application of critical theories are crucial if health professionals are to move beyond individual approaches and act on the determinants of health in a comprehensive model of primary healthcare. Further, a critical theoretical approach is required to acknowledge and act on the structures and discourses that lead to and reinforce racism, inequity and structural violence at interpersonal and systemic levels and which add collectively to experiences of intergenerational trauma and inequitable health outcomes and healthcare access.

Critical theories are vital in recognising and shifting the dominance, power and privilege of the health professional in intercultural interactions. Critical orientations align with interprevist epistemologies and reject positivist notions of the superiority and objectiveness of one 'true' knowledge or the adequacy of one type of knowledge (Brady & Gingras 2019). Adoption of critical theories therefore reinforces the need for inter-epistemological approaches and movement beyond positivism and would support health professionals in their acceptance and respect for other forms of knowledge, beyond biomedical. Beyond epistemological pluralism, it would enable health professionals to acknowledge their privileging of this knowledge and to deconstruct the impacts of this on their retention of power and subsequent oppression of caregivers' participation at the cultural interface. These steps must be undertaken before power can be shifted to the caregiver and their participation in knowledge sharing and solution generation enabled.

10.5.4 Facilitating the training of health professionals in wider approaches

It is the role of universities to introduce health professionals to concepts of ontology and epistemology and to foster ontological respect, inter-epistemological and multi-theoretical approaches to knowledge seeking and practice. Currently, university training is dominated by positivism (Buchanan 1998; Lordly, Lövestam & Ruhl 2019) which in my experience is concealed and not openly discussed. This training however shapes the understandings and values of health professionals, their professional identities and the ways in which they work (MacLellan, Lordly & Gingras 2011). Therefore, epistemology and ontology need to be openly discussed and alternative epistemologies beyond positivism need to be integrated into the early stages of health professional training.

A respect for non-scientific knowledge can then support the introduction of a range of theories, including social and critical theories and exposure to a diversity of knowledge. This can be achieved through a multi-disciplinary approach to training, incorporating knowledge and practices from related fields such as social sciences and humanities, who as stated by the 2009 Declaration of Critical Dietetics (Coveney & Booth 2019 p5), "we have much to integrate".

The application of alternative knowledge and preparatory reflexivity can then be fostered with the integration of inquiry based activities and rhetorical argument skills (Kuhn et al. 2000) into future learning activities across a range of topics, including traditional biomedical subjects, to engage students in dialogues with others so that they can identify and deconstruct the assumptions and origins of the knowledge that they have brought to their analysis and approach (Halman, Baker & Ng 2017), action theories in order to understand the impacts of this knowledge and collaborate in innovative and transformative approaches. In this way students are supported to understand the organising ideologies (medicalisation, 'nutritionism' and essentialist understandings of culture) that shape their knowledge. They are also prompted to seek knowledge of other practices that may foster greater understandings of the topic or issue at hand. These skills need further support by the workplace in their application to practice through mentoring to promote reflexivity of practice once health professionals are working at the cultural interface. However, the workplace is ill-equipped to provide the background training necessary to foster these pre-requisites to reflexivity and cultural safety.

10.6 Strengths and limitations

There are a number of strengths and limitations to this research study and given my own reflexive journey throughout the process of research, there are many things I would have done differently, particularly the types of questions I asked and the knowledge I originally sought, if I knew at the commencement of my journey what I know now. However, this is the process of a PhD and my journey is not complete. Using the knowledge and skills gained through my studies I continue to critically reflect on my knowledge and practices to adapt to the context in which I find myself and recognise that I still have the tendency to drift away from the cultural interface, particularly in times of tension.

As this study was undertaken in one community, I do not purport that the findings of the practices of caregivers, particularly as presented in Chapter 7, are transferrable to other communities or settings and the importance of local context and the socio-historical environment, as I discussed throughout this thesis, is integral in culturally safe care. The focused approach with one community however was in keeping with constructionist methodology and enabled me depth, as opposed to breadth, in knowledge as I sought to uncover the views and experiences of participants. In acknowledgement of the importance of context and lived experience it offered significant strengths in meeting the needs of the study community. This approach is transferable to similar research (and health professional practice) and offers an insight into other ways of working at the cultural interface.

With a small group of participants, I was able to spend more time with each, fostering stronger relationships and confirming new knowledge with participants and the study reference group. This approach also allowed me to gain more insight into the local context and the lived experiences of the participants. My previous relationship with the community as a Dietitian may have led to the provision of information that participants wanted me to hear and indeed this was likely, especially in the early stages of the research. However, throughout the research process I clarified my findings with caregivers and health professionals and with other members of the community. I also utilised my observations to triangulate and confirm the information that I was provided. Further, using reflexivity, I was able to reflect on my engagement with caregivers and health professionals and adapted my approach, reassuring participants of my role and intentions. My relationship with the CBW and her understanding of my role and the study were crucial in this.

There were activities that I planned to undertake as part of the study that did not go to plan. Whilst I attempted to recruit men and fathers to participate in focus groups, this was unsuccessful, so the voices of caregivers presented in the study are only those of women. In addition, only one grandmother participated as a caregiver participant, however aunties and other female family members participated in the original focus groups. This led to a privileging of the voice of mothers, who as identified in the study are the main caregivers, decision makers and enactors of feeding practices for children during the period of weaning. However, given the variance of food roles and the importance of the wider social group in influencing eating and nutrition, the views of a greater diversity of people may have extended knowledge of other factors determining feeding practices, this requires further research.

Similarly, as I described in Chapter 6, the photo-voice activities that I attempted with caregivers were unsuccessful. Whilst I do not think that this detracted from the study findings, it did limit prompts for further discussion with caregivers about the family food environment. Whilst my observations of caregiver feeding were dominated by the childcare setting, there were still opportunities to observe eating in the home and wider community environment and I guided caregivers to discuss who was present and how and where meals were provided and distributed in the home environment during interviews.

10.7 Recommendations for further research

Further studies are required to understand the nutritional practices of population groups and the determinants of these practices, from alternative frameworks to those in mainstream health literature. These studies need to be integrated into high impact factor journals to enhance the knowledge and credibility of the knowledge of the socio-cultural-historical environment on health and nutrition behaviours and to promote transformation of research and practice among health professionals.

The knowledge gained from this study can be built on to further explore the experiences of Aboriginal peoples and health professionals at the cultural interface of the health system and to finetune and determine the impact of the recommendations. For example, the sharing of knowledge and facilitation of tacit knowledge sharing requires further investigation . The effects of enhancing understanding of epistemology and in critical biopsychosocial views of health by embedding them into university training and professional development competencies also need to be determined. Further, processes, frameworks and tools to support cultural safety in the practice of health professionals and health systems and the effectiveness of these in enhancing communication, promoting culturally safe care and ultimately in improving health outcomes and their determinants needs to be assessed.

I acknowledge that the representation of the optimal cultural interface presented in this thesis is based on my understandings as a non-Indigenous researcher and that despite the application of appropriate methodology and theories, and the co-creation of knowledge with Aboriginal community members; a number of Western constructs are used to define my recommendations. Whilst the recommended frameworks, comprehensive primary healthcare and cultural safety, are reported by Aboriginal researchers and organisations as appropriate and preferred approaches to healthcare, further research is needed to understand the optimal cultural interface and the strategies recommended in this thesis from Aboriginal perspectives. Therefore, future research should ideally be undertaken as Aboriginal led, participatory action models, framed by Aboriginal ontological and epistemological standpoints that prioritise the experiences and viewpoint of Aboriginal peoples (Cochran et al. 2008), who are the ones who need to determine whether these activities have resulted in care that they deem culturally safe.

10.8 Conclusion

This research has been novel in its approach and application of cultural interface theory to explore whether the nutrition related activities of non-Aboriginal health professionals met the needs of Aboriginal caregivers with children who were progressing through the period of weaning. From this research I have been able to add to the literature a model of the current cultural interface and propose a model of the optimal cultural interface. I have also recommended changes to the wider health system, health professional training and to health professionals' practices to enable the implementation of this model.

Locating the research in one community, with caregivers who had raised their concerns about child nutrition, facilitated a deep exploration of the context in which feeding practices occurred for the study community. My application of cultural interface theory allowed me to present the voice of both the caregiver and health professional, in their descriptions of their nutrition related practices and the determinants of these practices, without privileging the voice or determining the correctness of either group.

Situating the interactions of non-Aboriginal health professionals and Aboriginal caregivers at the cultural interface and applying critical social theory and postcolonial theory prompted my exploration of the structures and discourses that unknowingly shaped the practices of each group and informed the sharing of knowledge and collaboration in the creation of mutual understandings and solutions. This approach to research is uncommon in nutrition-related disciplines, however there is a growing body of researchers arguing for the uptake of critically informed and social approaches to nutrition research.

Evidence indicates that optimising the nutritional intakes of children during the period of weaning, the period from the commencement of complementary foods into a child’s diet to the cessation of breastfeeding, offers a unique window of opportunity to establish healthy eating patterns and promote growth and development, that not only reduce the risk of chronic disease in adulthood, but can enhance future social position, thereby playing a key role in addressing health inequities. This evidence has led to an increase in early childhood focused nutrition activities, including in Aboriginal health. However, despite this focus, health data indicates that there has been minimal improvement in rates of undernutrition experienced by Aboriginal children living in remote areas of the NT and communities are experiencing a double burden of disease with increasing rates of childhood obesity and early onset chronic disease. This suggests that current activities are not meeting community needs.

Whilst the health inequities experienced by Aboriginal peoples may have their origins early in life, acts of discrimination and oppression instigated during colonisation and integrated into contemporary structures continue to reduce access to the determinants needed to enable optimal nutrition and wellbeing. These factors are known to reduce access to health services for Aboriginal peoples. From the findings of this research, I was able to develop a model of the current cultural interface and highlight the dominance of the health professional and the privileging of their knowledge and practices that acted to marginalise the knowledge and further oppress the participation of the caregiver at the cultural interface. Thereby power imbalances were reinforced, which exposed the caregiver to structural violence and led to disempowerment in enacting preferred feeding decisions that may promote wellbeing.

The dominance of the health professional was reinforced through interplaying ideologies of medicalisation and ‘nutritionism’ that interacted with health service structures to direct acute, reactive and reductionist models of care that ignored or downplayed the context and lived experience of the determinants of feeding practices and led to a focus on the provision of prescriptive nutrition education. This placed the health professional and their knowledge in a position of expertise at the cultural interface, privileged their knowledge and preferred practices and through a positivist stance deemed the priorities and knowledge of Aboriginal caregivers irrelevant.

The oppression of the caregiver at the interface was further heightened by essentialist views of culture that created Othering. Knowledge and practices that differed to the health professionals were interpreted as deficits and problematic and therefore required modification to align with practices defined by the health professional. Knowledge seeking was reduced as caregiver’s knowledge was mistrusted and their likelihood in engaging in interactions or complying with advice was judged by the health professional, based on stereotypes and assumed ‘knowledge’ of the other group. This approach acted not only to disempower the participation of caregivers at the cultural interface and in voicing and gaining assistance in meeting their preferred feeding practices; it also disempowered the health professional who reported tension and uncertainty in the knowledge that their practices did not meet caregiver needs but felt unable to adapt their practice to meet these needs.

In line with the methodological approach, I situated myself in the research through the use of reflexivity and reported throughout this thesis the adaptations that I made to my approach to the research and to practice, as I shifted towards working at the cultural interface and applied the principles of cultural safety. My previous employment as a Dietitian in the study community and continuing work in Aboriginal health in the NT of Australia, was integral in shaping the recommendations arising from this research and assisted in my development of a model of the optimal cultural interface which promotes the shifting of power from the health professional to the caregiver in order to facilitate knowledge sharing and collaboration on solutions that are prioritised to the needs of the caregiver.

Given the structural violence and racism present at the current cultural interface, health professionals must change their practices to allow Aboriginal people to work with them at the cultural interface. Due to their current positivist approach, health professionals may be unable to recognise their power, privilege and biases at the cultural interface and as such cannot apply the principles of cultural safety or undertake reflexivity. In this way, they are also blocked from truly respecting and considering knowledge that differs from their own biomedical understandings and are blinded to the context, lived experience and social factors that are determining caregiver feeding decisions and practices.

Before health professionals can actively collaborate with Aboriginal peoples at the cultural interface they need to be better prepared through inquiry based pedagogies that promote critical consciousness. Understanding of ontology and epistemology will allow health professionals to be open to other ways of knowing and doing. They can then learn to appreciate the value of alternative knowledge and practices, including from the social sciences, that may extend and reshape current biomedical understandings and utilise a range of theories that enable them to better understand the impact of the socio-political-historical environment on their own and other peoples practices. This would prepare and create a desire to work collaboratively with others as the cruciality of different approaches in determining solutions that fit context and experience are acknowledged and prioritised.

Ultimately, the practices of health professionals are largely determined by the structures and systems in which they work and whilst collective consciousness can advocate for systemic change, ultimately the only way that health professionals can work at the cultural interface and meet the needs of caregivers is if the cultural safety and comprehensive primary healthcare models located at the policy level are enacted and prioritised in everyday practice. This will require re-orientation of the entire health system, a shifting of tracks, through the implementation of supporting governance structures that truly value co-creation of knowledge and collaboration.

This thesis aimed to understand how well non-Aboriginal health professionals met the needs of Aboriginal caregivers during the weaning phase of their children's development. Weaning is the critical point at which to influence healthy eating practices and to address health and social inequities, however, insights from this one community indicate that both caregivers and health professionals are disempowered to optimise child nutrition or wellbeing. Beyond this, current practices may act to reduce access to health services as Aboriginal caregivers are inhibited from participation in healthcare decisions and exposed to structural violence. Knowledge gained and the recommendations arising from this study have the potential to reorientate service provision and health professional education in order improve the nutrition and health related practices of those working at the cultural interface and the health service experiences and wellbeing outcomes of remote Aboriginal peoples.

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APPENDICES

Appendix 1- Participant information sheet

Appendix 2- Participant consent form

Appendix 3- Interview prompts- focus group

Appendix 4- Interview prompts- caregivers

Appendix 5- Interview prompts- health professionals

Appendix 6- Log of contacts

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CHIEF INVESTIGATOR: Anthea Brand Contact details 8951 6017
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Study information sheet:
Exploring the nutritional status of families with young children living in a remote Aboriginal communities

Hello, my name is Anthea. We are doing a research study to find out more about:

- What foods little kids are eating and how they are eaten
- What affects the foods given to little kids
- What makes it hard or easy to give little kids healthy foods
- Why is it important to give little kids healthy food
- What do people tell you about feeding little kids

I am asking you to be in my study because you help to look after little kids and I want to learn from you to help health staff and community work better together to make kids healthy.

You can decide if you want to take part in the study or not. It's up to you. **This means you can say no.**

This sheet tells you what I will ask you to do if you choose to take part in the study. Please read it carefully so that you can make up your mind if you want to take part. If you choose to be in the study and change your mind later that's OK- all you need to do is tell me you don't want to do the study anymore. If you have any questions you can ask me or your family or the health workers. If you want to you can call me on 8951 6017.

ABN 65 542 596 200, CRICOS No. 00114A

What will happen if I say I want to be in the study?

You will be asked to:

Talk with a group of people about feeding little kids at the crèche, aged care, school or other community group

Talk with the researcher about feeding little kids at your home or somewhere you feel comfortable. You might ask other people from your family to talk too.

Take photographs of your child and family eating meals on 2 days and talk with the researcher about what is happening in the photo

When we ask you questions you can choose which ones you want to answer. If you don't want to talk about something that's OK. You can stop talking to us at anytime.

- If you say its OK I will record what you say with a tape recorder.
- If you say its OK I might use some of the photos you take in publications about this research such in books of research findings or at meetings with other health staff.

Will anyone else know what I say in the study?
Sometimes one of the research group might come along to our meetings to help us talk- you can choose if you do or do not want this person there. This person and I will not tell anyone else in the community what you say to me, except if you tell me about someone hurting you or if you hurt yourself or someone else- then we might need to tell someone to keep you and other people safe.

All of the information that I have about you will be stored in a safe place and I will look after it very carefully. I will write a report about the study and show it to other people but I won't say your name in the report and no-one will know that you were in the study, unless you say it is OK for me to use your name.

How long will the study take?

The study will take 1 ½ years in the community.
Each group talk will last about 1 hour. If we meet with you and your family we will meet for up to 2 hours at one time. We will meet with you 5 or 6 times over one year.

Are there any good things about being in the study?

You will be helping us to find better ways for health staff and community people to work together to improve the health of the little kids and the community.
To thankyou for your time in the study we will give you a basket of fruits and vegetables to share with your family and an album with the photos that were taken of your family.

Are there any bad things about the study?

This study will take up some of your time but we don't think it will be bad for you or cost you anything.

We may talk about some things that you find sad or make you anxious. Remember that you choose what you want to talk about, if you do not want to talk about something you do not have to. If you do feel sad or anxious please talk to us and we will talk to the health staff to get help for you.

Will you tell me about what you learnt in the study?
Yes, we will tell you what we learnt. We will talk at community groups at the end of the study. If you want to learn more please ask us.

What if I am not happy with the study or the people doing the study?
If you are not happy with how we are doing the study or how we treat you, then you can:

- Call the university on _______________
- Call the ethics committee on ______________________

This sheet is for you to keep

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Exploring the Nutritional Status of Families with young children living in a remote Aboriginal community

CONSENT FORM

If you are happy to be in the study, please:

- Write your name in the space below
- Sign your name at the bottom of the next page
- Put the date at the bottom of the next page

You should only say "yes" to being in the study if you know what it is about and you want to be in it. If you do not want to be in the study, don't sign the form.

I, ………………………………………………………………….. (PRINT YOUR NAME), am happy to be in this research study.

In saying yes to being in the study, I am saying that:

- ✓ I know what the study is about
- ✓ I know what I will be asked to do
- ✓ Someone has talked to me about the study
- ✓ My questions have been answered
- ✓ I know that I don't have to be in the study if I don't want to
- ✓ I know that I can pull out of the study at any time if I don't want to do it anymore
- ✓ I know that I don't have to answer any questions that I don't want to answer
- ✓ I know that the researchers won't tell anyone what I say when we talk to each other, unless I talk about being hurt by someone or hurting myself or someone else
- ✓ I know that the researcher will print the results in a book and may talk about what they learnt from the study with other people

I am happy to do the following things as part of the study: (please circle yes or no to tell us what you would like)

Are you happy to talk to me with a group of other people?	YES	NO
Are you happy to talk to me alone?	YES	NO
Are you happy to take **photos** of your children and family and share those photos with me?	YES	NO
Are you happy for me to **tape record** your voice?	YES	NO
Are you happy for me to **use the photos** that you take during the research in any publications about the research (such as books and talks to health professionals)?	YES	NO
Are you happy for me to look at your child's growth and health information on the clinic computer?	YES	NO
Do you want me to tell you what we **learnt** in the study?	YES	NO

……………………………………………………
Signature

…………………………………………………
Date

Appendix 3: Interview prompts- focus group

Pictorial images of children and foods used to guide discussion in focus group 1.

1. Do you have any worries about the health of little kids in the community?
   What is causing the health worries?
2. Do you worry about the types of foods little kids eat?
   Why do they eat these foods?
3. How do you know what to feed little kids? Explore how gain information, usefulness, does any information conflict (include information from health staff)
4. Who feed/provides food for little kids (show age cards to discuss), talk about how feeding happens, where food is eaten, are meals prepared for children/shared, etc
5. (show images of children at various ages, talk about age of child in image)- what do the health staff tell you to feed babies of this age
6. What do you think about the information the health staff tell you? Usefulness, is it easy to do this- why/why not, what happens when feeding children that might change what you do?

Group 2- making posters using food images and pictures of children- break into groups, pick an image of a child, discuss how old child is and how know this, talk about what sorts of foods they would eat, why, when would the types of foods they eat change, why. Discuss feeding frequency, how eating, would anything be different if child is sick or not/too hungry. Do other children of the same age eat the same types of foods, what is different, is it the same everyday- what makes it different, has it changed over the years.

Appendix 4: Interview Prompts- Caregivers

Building relationships, getting to know caregiver and child, talking about child's development, growth, health, who assists with child rearing and feeding, living circumstances, daily activities

Interviews based on what is occurring in family at the time, flexible and aim to answer questions over period of time as opportunities/prompts for discussion occur

- Child feeding practices- current, past, intended vs ideal vs actual- what influences
- Any worries, anything really good
- Breastfeeding
- Introduction to complementary foods
- Progression of complementary foods
- Frequency of feeding, types of foods consumed, likes/dislikes
- Shopping, food preparation, storage, cooking, mealtimes
- Who else feeds child, any differences
- Where is information gained from, who helps when there are worries- what are the worries, how are they managed
- What makes feeding easy/hard, changes over time

Reflect on growth and medical history (past and current)- how manage, any changes in what eat, who involved

<u>Child feeding practices and structures and feeding environment</u>

- who feeds children or gives foods to children? Does it vary by age? Is anyone else involved? Prompt role of grandmother, aunties, father, siblings, other family/people
- who decides what foods a child should eat? Where is the food usually gotten from? Why?
- If you decide what a child eats, how do you decide/why choose those foods? Do they eat the same foods as other people in the family- what different and why?
- What do you do if your child wants to eat something else? What if it is something you don't want them to eat? What do you do if your child won't eat what you have provided?

- Is your child interested in food? Do they like to eat? Are they hungry? Do you have set eating times/ meals? Who decides when they should eat? Do they ask you for food? Does this change by location/who is around? Can they get food themselves?
- Who decides how much child should eat? Is your child hungry? Does this change? Do they eat everything given to them?
- do you ever worry that your child does not eat enough? What do you do?
- do you ever worry that your child eats too much? What do you do?
- How quickly does your child eat? Does this change? Do you worry it is too fast/slow? What do you do?
- How does your child eat their food? (e.g. hands, cutlery, cups) what age? What if they don't do this?
- Where does your child eat food? Prompt for different meals, snacks, drinks. Prompt who else around, are meals prepared for child/family, does the child sit- where, move around, what happens if they don't eat where you want them to, what else is happening at mealtimes
- Do you talk to your child when they are eating? Do you tell them to eat certain foods or eat more? Are there any foods you want to eat more/less of, how do you do this?
- Do you talk to your child about different foods prompt- talk about things they do for body- good or bad, do children need to know this information, is yes where should they get it from, why is it/not important, do you say anything if they are eating foods you think are good or bad
- do you give your child foods to make them feel better if they are sad/hurt, what foods?
- Do you give your children food if they have been good or to stop them being naughty?
- Do you take your child to the shops? Where are they when you are preparing food

Appendix 5: Interview Prompts- Health Professionals

Part 1: Background of health professional

1. Description of current role- responsibilities, how service provided, how in community, how often work with families with children in weaning age group
2. Length of time working in the study community. Previous work with Aboriginal communities
3. What training relating to role and Aboriginal health. Child health/ nutrition training
4. How often do you work with families in the study community? How is this service provided?

Part 2: Understanding of child feeding practices in the study community?

5. What are the main health and nutrition concerns for children <3 years of age in study community, how do they know these are of concern, why are they of concern?
6. Is it easy to feed kids good food in the study community? Why/why not
7. What is good food for children aged <3 years of age
8. What do you think caregivers are feeding children aged under 3 years, how do you know, why do you think these foods are provided/what impacts on the feeding practices/foods eaten?

Part 3: Provision of nutrition activities

9. What nutrition activities do you provided to caregivers or other people involved in feeding children aged under 3 years in the study community? When? Where? Who is involved?
10. How confident are you in providing nutrition activities to families? Why? What impacts on the provision of these activities?
11. What activities do you provide that address:
    a. Breastfeeding/formula feeding
    b. Introduction to and progression of solids
    c. Healthy eating
    d. Health concerns (prompt as discussed earlier- anaemia, growth)
    e. Any other concerns they have discussed
12. What informs the activities you provide on early childhood feeding?
13. Do you adapt the activities to the needs of the families/people you work with? How do you determine needs, how do you modify, what informs these modifications, do they address the issues raised earlier (e.g. what makes it hard), are you able to make the modifications needed?

Public health/community work

14. Do you undertake any health promotion activities aimed at nutrition for children aged under 3 years of age , what are they, where are they conducted, how often?
15. How do you determine what programs/strategies to conduct, who is involved, why?
16. Do any of these activities address the health concerns and influences on feeding discussed earlier. How? Why/why not

Feeding structures and environments

17. Who feeds children/prepares food and makes feeding decisions (what, when, where, how much, etc) for children under 3 years of age? How do you know. Is this who you engage in nutrition activities, why/why not
18. Where do children usually eat, who is present at mealtimes, can you describe mealtimes/the family food environment
19. What involvement do you think caregivers have with children when eating? Do they worry about how much/what types of foods a child eats, do they engage in responsive feeding, restriction, coercion?
20. Are there any concerns with fussy eating, food refusal, etc?
21. Do you think caregivers feed children to meet emotional needs or to manage behaviour (restrict, rewards, bribes etc)?
22. Do you think caregivers talk to children about foods or healthy eating? Do you think caregivers promote or restrict certain foods?

Appendix 6 Contacts with study reference group and participants

Date	**Activity**
2014-15	Liaison with CBW and community to determine research questions and approach
5th February 2016	Letter of support gained from study community
8th March 2016	Letter of support gained from local council
May 2016	Application for ethics- Central Australian Health Research Ethics Committee (CAHREC)
15th June 2016	Request for further information from CAHREC
10th August 2016	Conditional approval CAHREC
20th September 2016	Ethics approval received CAHREC
11th October 2016	Ethics Approval Social and Behavioural Research Ethics Committee Flinders University
16th – 20th October 2016	Initial visit with study reference group, establish focus groups
13th December 2016	Approval Central Australia Health Service to undertake research
6th – 8th December 2016	Focus groups, meeting with study reference group
16th January 2017	Trip cancelled due to illness
30th January 2017	Trips cancelled due to instability in community services
January-February 2017	Negotiations with NT DoH regarding access to study community and ongoing use of CBW Phone liaison with CBW to update study reference group
7th March 2017	Trip cancelled due to inability to access accommodation Liaison with CBW to update study reference group, CBW recruiting participants
21st April 2017	Trip cancelled due to inability to access accommodation Liaison with CBW to update study reference group, CBW recruiting participants
2nd – 4th May 2017	Meeting with study reference group Initial contacts with caregiver participants Review of discussion prompts and alteration of Feeding practices and structures questionnaire with CBW
22nd May 2017	Trip delayed
29th -31st May 2017	Interviews with caregiver participants Meeting with study reference group
19th -22nd June 2017	Interviews with caregiver participants Advised by study reference group to meet with CBW who will liaise with reference group, to provide updates on any significant changes or events
4th July 2017	Update with CBW
10th July	Interviews with caregivers Update with CBW
31st July 2017- 2nd August 2017	Interviews with caregivers Update with CBW
21st August 2017	Trip cancelled, too busy in community
25th -27th September 2017	Interviews with caregivers Update with CBW, update to study reference group
16th – 19th October 2017	Interviews with caregivers Update with CBW
4th December 2017	Trip cancelled
11th- 13th December 2017	Interviews with caregivers Update with CBW

December 2017- March 2018	Health professional interviews
5th – 7th March 2018	Interviews with caregivers Update with CBW
14th- 17th May 2018	Interviews with caregivers Update with CBW Update with study reference group, discussion re key findings and plan for community results update
8th- 10th August 2018	Meetings with participants, CBW and study reference group Feedback of results to community and discussion of findings
September 2018- May 2019	Analysis of findings
May 2019- November 2019	Refinement of findings and write up
December 2019-April 2020	Finalise complete thesis draft for supervisor review
May-June 2020	Final editing