Factors Affecting West Australian Indigenous Community Members’ Health Behaviour

A Qualitative Study

Pippa Waterworth
BSc, BSc (Hons psychology), DipEd, MSc, MSSc

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Abstract

Indigenous Australians face continual disparities in health outcomes compared with their non-Indigenous counterparts. Although studies highlight the association between these outcomes and their higher rates of detrimental health behaviours, the factors that influence them are still poorly understood. Researchers have called for ongoing exploration of Indigenous perspectives of health behaviour. This PhD contributes to the knowledge concerning Indigenous health by investigating the factors that influence Indigenous health behaviour from the perspective of Indigenous groups in Western Australia and the people who support these groups. The research was conducted in accordance with the Australian National Health and Medical Research Council ethical principles that require researchers to consult with Indigenous community members.

Qualitative approaches, involving three data collection phases, were employed. The first phase entailed interviews with 29 people who supported Indigenous groups in WA. The second phase, involving 157 members of two urban West Australian Indigenous communities, focused on exploring Indigenous individuals’ perspectives of the factors at work in their community. In the third and final phase, 19 community members completed in-depth interviews exploring their impressions of their social networks and social support. A Participatory Action Research approach was adopted in phases two and three, a collaborative process that included advice and assistance from community members. A variety of approaches and frameworks were used to guide the explication of findings.

There was substantial similarity in the themes that emerged in the discussions held with the different participants. Findings indicate that the Indigenous cultural perspective of health and associated health behaviours is multi-dimensional and holistic. There were several unique factors identified:

1. This research highlights the positive affect of culture on health behaviour but it also raises the potential for a negative effect that exacerbates other factors such as the burden of negative social support and social connection.
2. The priority of cultural identity that is driven by the effects of racism and marginalization may create barriers to the absorption of health promoting behaviour that is deemed not culturally appropriate.

3. Distrust caused by racism and marginalization was suggested as a factor that may prevent information regarding appropriate health behaviour that was couched in non-Indigenous terms or disseminated by non-Indigenous people from being credible to Indigenous people. This distrust appears to disrupt communication between Indigenous and non-Indigenous people, thus undermining the dissemination of information regarding health behaviour choices.

4. Racism and marginalisation may induce social resistance that affects health behaviour.

5. In light of the cultural significance placed upon family and kinship connections, Indigenous community members often have extensive social networks comprising bonded (close or homogeneous) relationships, which are an enormous source of social support that has both positive and negative consequences for health behaviour.

6. To date, social support has not been mentioned as a factor that has negative implications for health behaviour in Indigenous Australians. While the Indigenous West Australian community members involved in this study emphasized the positive effects of social support, they also emphasised the burden of social support, especially unidirectional social support that reduced their psychological and physical resources that were available for their own needs.

7. Limited or inadequate social support resulting from withdrawal from bonded relationships also affects health behaviour.

8. A lack of social support from bridging (casual or heterogeneous) relationships, as a consequence of racism and marginalisation, reduces the possible sources of support available to this population; in addition, a strong desire for connection and a sense of belonging is a crucial motivator for their health behaviour.

9. This research highlights the juxtaposition involved in gaining a sense of belonging from the general community when racism inhibits developing relationships with members of this larger community, and also generates distrust towards them.

10. The importance of personal choice was also stated as a factor that influenced the Indigenous community members’ health behaviour. Further, the importance of personal choice may be amplified by the perceived lack of control that is typically associated with being a member of a marginalised group. In some instances, personal choice was
prioritised over behaviours that lead to good health outcomes.

11. Psychological reactance based on the desire to not conform to oppressive or intrusive
    demand was also suggested as a cause of health behaviour.

    Several of the themes identified highlight the tension caused by being a member of a
    minority cultural group that has been marginalised by the practices and attitudes of the
    dominant group.
Declaration

The research in this thesis was undertaken under the guidance of Associate Professors Michael Rosenberg, Rebecca Braham, and James Dimmock, and Doctor Melanie Pescud at the School of Sport Science, Exercise and Health, The University of Western Australia. Funding was provided by a grant from the Australian Research Council. The grant details are as follows:

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Publications arising from this thesis

The regulations of The University of Western Australia provide the option for candidates for the Degree of Doctor of Philosophy to present their thesis as a series of papers which have been published in refereed journals, manuscripts that have been submitted for publication but not yet accepted, or manuscripts that could be submitted.

This thesis contains works that were either published, or prepared for publication, with co-authors. This work was undertaken with the candidate’s supervisors, Associate Professors Michael Rosenberg, Rebecca Braham, and James Dimmock, and Dr Melanie Pescud, all at The University of Western Australia. The bibliographic details of the works are provided below, along with information about where they appear in the thesis:

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http://dx.doi.org/10.1016/j.socscimed.2014.08.035 (see Chapter 6/Appendix Q) (90% of the work in this publication was undertaken by the candidate.)

Signed:

P Waterworth

M Rosenberg

R Braham

J Dimmock

M Pescud
Life isn’t about waiting for the storm to pass … It’s about learning to dance in the rain.

Vivian Greene
Dedication

This thesis is dedicated to my mother, Dora Waterworth, for the selfless love and acceptance she gave me. Dora encouraged me to undertake this study and believed in my ability to complete it, even when at times I doubted this myself. Throughout my life she has always been my champion and my friend. She showed me that anything was possible as long as you were willing to persevere and bounce back from the inevitable setbacks. She encouraged me to achieve more than I felt I was capable of achieving. Unfortunately, her recent death from a brain tumour means she will not physically see me complete this thesis. I can only hope that if she exists in some other place, she will know I have completed it, and be proud. AMDG

Source: http://dontgiveupworld.com
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My appreciation, thanks, and acknowledgements go to my team of supervisors: Associate Professors Michael Rosenberg, Rebecca Braham, and James Dimmock, and Doctor Melanie Pescud. Without their guidance and advice I may have lost my way through the research process. I appreciate the dedication they showed in helping me and the hours they spent reading my work. I would like to acknowledge and thank Associate Professor Kate Smith for her support and for introducing me to community members and guiding me in the process of building relationships with communities.

I would like to acknowledge and thank all the participants who were involved in this study. In particular, I would like to thank the Indigenous community members who generously shared their thoughts, feelings, and experiences with me, in a manner that at times I found humbling. This research would not have been possible without the support and guidance of the community advisory committee members and the liaison people.

There are a number of other people who I want to acknowledge and thank. I wish to acknowledge and thank Dene Buckley, who helped me in numerous ways during the past years. Without his support and assistance I would not have been able to complete this thesis. Gemma Craven, a dear friend, has helped and supported me in numerous ways over my PhD journey; for which I want to acknowledge and thank her. I would also like to acknowledge Melanie Pescud, one of my supervisors, who became a close friend through this journey. Her effervescent love of life has been a constant inspiration to me. I am also grateful to Yolanda Andrews and Amanda Derbyshire who I shared an office with and who were also supportive and caring.
I believe in ‘pay it forward’, so will repay your kind acts to the other people I meet on my journey, and hope that others will provide similar kindness to you in return.
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Chapter 1
Introduction

Indigenous Australians, who continue to experience poorer health outcomes than their non-Indigenous counterparts (ABS, 2011b, e), have been identified as a National Priority Population group. Chronic disease and injury are primary factors contributing to their lower life expectancy (AIHW, 2012; NHPAC, 2006), which on average is estimated to be 69.1 years for males, 10.6 years fewer than their non-Indigenous counterparts, and 73.7 years for females, 9.5 years fewer than non-Indigenous females (ABS, 2011e). Indigenous Australians suffer a greater burden of poor health because of their higher levels of morbidity caused by mental health problems and chronic diseases (AIHW, 2011a). Mental health problems include high rates of psychological distress, depression, and suicide (AIHW, 2009; ABS, 2011f; Cunningham & Paradies, 2012); the chronic diseases that Indigenous people are most commonly affected by include cardiovascular disease, type 2 diabetes, renal failure, and some cancers (Thomson et al., 2012). Both the level of chronic disease and the reduced life expectancy have been linked to a number of determinants, including health risk behaviours (AIHW, 2012). In light of this, examining the factors influencing the health behaviour of Indigenous Australians may provide insights that assist in addressing the disparity in health outcomes between Indigenous and non-Indigenous Australians (Clifford, Jackson Pulver, Richmond, Shakeshaft, & Ivers, 2011).

Health Risk Behaviour

A number of personal behaviours have been shown to contribute adversely to health outcomes (Amoroso, Hobb, & Harris, 2005; Mathers, Vos, Stevenson, & Begg, 2000;
Petrie, Doran, Shakeshaft, & Sanson-Fisher, 2008; Vos, Barker, Begg, Stanley, & Lopez, 2009) and are commonly referred to as health risk behaviours. Key among these are smoking, poor nutrition, misuse of alcohol and other drugs, and inadequate physical activity (AIHW, 2012). Indigenous Australians are more likely to engage in these behaviours and, therefore, to experience a disproportionately greater negative effect from them than non-indigenous Australians (ABS, 2008).

Zhao et al. (2013) report that Indigenous Australians are more likely to participate in health risk behaviours than non-Indigenous Australians. Statistics calculated from the results of two national surveys (NATSIHS, 2013-14; ABS, 2013) support this, indicating substantial differences in Indigenous and non-Indigenous Australians’ engagement in several health risk behaviours (see Table 1). The proportion of Indigenous Australians who currently smoke (45.8%) is higher than that of non-Indigenous Australians (17.5%). The proportion who drink to risky levels on a single occasion (57.1%) is also higher (44.4%) (NATSIHS, 2013-14). In addition to the high rate of smoking and consumption of alcohol at high risk levels, Indigenous Australians are often sedentary (47.9%), and do not consume the recommended amounts of fruit (57.7%) and vegetables (95.2%).
### Table 1 Behavioural factors by Indigenous status

<table>
<thead>
<tr>
<th>Behavioural variable</th>
<th>Indigenous (%)</th>
<th>Non-Indigenous (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Smoker Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current smoker</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daily</td>
<td>43.8</td>
<td>15.7</td>
</tr>
<tr>
<td>Other</td>
<td>2.1</td>
<td>1.8</td>
</tr>
<tr>
<td>Total current smokers</td>
<td>45.8</td>
<td>17.5</td>
</tr>
<tr>
<td>Ex-smoker</td>
<td>22.4</td>
<td>31.1</td>
</tr>
<tr>
<td>Never smoked</td>
<td>31.8</td>
<td>51.4</td>
</tr>
<tr>
<td><strong>Alcohol Consumption</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001 NHMRC guidelines (risk levels)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low risk (in a week)</td>
<td>33.8</td>
<td>48.3</td>
</tr>
<tr>
<td>Risky (in a week)</td>
<td>6.1</td>
<td>7.1</td>
</tr>
<tr>
<td>High risk (in a week)</td>
<td>6.3</td>
<td>4.6</td>
</tr>
<tr>
<td>Risky/high risk (in a week)</td>
<td>12.3</td>
<td>11.7</td>
</tr>
<tr>
<td>2009 NHMRC Lifetime risk guidelines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exceeded 2009 NHMRC single occasion risk guidelines</td>
<td>57.1</td>
<td>44.4</td>
</tr>
<tr>
<td>Last consumed alcohol: one week to less than 12 months ago (ex-drinkers)</td>
<td>26.2</td>
<td>22.6</td>
</tr>
<tr>
<td>Last consumed alcohol 12 months or more (ex-drinkers)</td>
<td>15.9</td>
<td>7.3</td>
</tr>
<tr>
<td>Never consumed alcohol</td>
<td>10.2</td>
<td>8.9</td>
</tr>
<tr>
<td><strong>Other risk behaviours</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sedentary/ low exercise level</td>
<td>47.9</td>
<td>57.9</td>
</tr>
<tr>
<td>Inadequate daily vegetable consumption</td>
<td>95.2</td>
<td>92.9</td>
</tr>
<tr>
<td>Inadequate daily fruit consumption</td>
<td>57.7</td>
<td>51.4</td>
</tr>
</tbody>
</table>

Source: 2013–2014 National Aboriginal and Torres Strait Islander Health Survey; Australian Bureau of Statistics, 2013b

**Determinants of Health Behaviour**

Commonly, behaviour is driven by factors within the immediate command of the individual, such as perceived behavioural control and personal attitudes towards the behaviour (Ajzen, 1991; Bagozzi, 1992). Social norms (the values, attitudes, and
behaviours of a society or group) also have an influence on behavioural choices (Hagger & Chatzisarantis, 2007). The limited research exploring factors that influence Indigenous Australians’ health behaviour have found that factors beyond the control of the individual, such as social connections, socio-economic circumstances and colonisation, may contribute substantially to these behaviours (Briggs, Lindorff, & Ivers, 2003; Nelson, Abbott, & Macdonald, 2010; Passey, Gale, & Sanson-Fisher, 2011; Wood, France, Hunt, Eades, & Slack-Smith, 2008). These additions to the commonly recognised motivations suggest that further research in this area is warranted.

**Indigenous Australians**

Indigenous Australians, comprising Aboriginal and Torres Strait Islander groups, account for 2.5% (548,400) of the total population of Australia: 32% live in major cities, 42%, the highest numbers, in regional areas, and the remaining 27% in remote areas (ABS, 2011a). Western Australia (WA), the context of the present study, has the third largest Indigenous population of all Australian States and Territories (13%; 69,700). The WA Department of Indigenous Affairs reports that 40% of the Indigenous population lives in metropolitan regions and approximately 10 to 13% in the Pilbara, West Kimberley, and Southern regions (including the Wheatbelt, Peel, South West, and Great Southern regions). The Midwest, including the Gascoyne, Goldfields and East Kimberley, are home to 8 to 9% each (Department of Indigenous Affairs, 2013). A large proportion (27,103) of the Indigenous population in WA live in the capital city Perth (ABS, 2011a). Figure 1 indicates the location of these regions in WA.
The WA Indigenous population is predominantly composed of Aboriginal people rather than Torres Strait Islanders. While they may all be Aboriginal people, it is recognised that this does not constitute homogeneity within the Aboriginal people of WA. Rather the WA Aboriginal population is a heterogeneous group comprising many different subgroups including, but not limited to, Nyoongar and Yamatji. The Indigenous people involved in this study preferred to be identified as Aboriginal. However, as this research is aimed at both local and international audiences, the term Indigenous will be used throughout this thesis, unless mentioned in a specific quote or organisational name.

**Background**

Indigenous people in Australia have been marginalised and subjugated by the dominant non-Indigenous majority since arrival of the European settlers from the mid-eighteenth century (Broome, 1994). Historical attempts to assimilate, institutionalise, and
marginalise Indigenous people have had a profound effect on their perspectives and circumstances, including their health behaviours (Altman, 2003; Atkinson, 2002; Swan, 1998). Contemporary racism appears to exacerbate the marginalisation and subjugation of the Indigenous population (Paradies, Harris, & Anderson, 2008). Solely academic or knowledge-focused research processes have the potential to reinforce the continued marginalisation of Indigenous people in contemporary Australian society (Altman, 2003), and research involving Indigenous Australians has sometimes aggravated their marginalised status; this has resulted in an underlying mistrust of both researchers and the research process (Harvey, 2009), and Indigenous people may be wary when invited to participate in research conducted by non-Indigenous researchers (Harvey, 2009; Thomas, 2004). It is therefore necessary to consider the historical and contemporary circumstances surrounding the Australian Indigenous population when planning and conducting research (Liamputtong, 2007).

**Historical culture and society of Indigenous Australians**

Indigenous society is traditionally sophisticated and culturally rich (Broome, 1994), with their religious beliefs and associated duties paramount in their society and culture (Horton, 1991). Indigenous society is strongly based on relationships between the people and the land, and is governed by specific rights, obligations, and rules relating to appropriate behaviour (Smith, 2004). Relationships, land, and religious beliefs are intertwined and direct the existence of Indigenous people, combining in a code of conduct that extends into every aspect of their way of life (Broome, 1994; Pascoe, 2012; Smith, 2004).

Traditionally, Indigenous people hold a unique relationship with the land, especially the area that they refer to as their ancestral homeland, which they called ‘country’ (Muecke
The deep connection with country is similar to the relationship one might have with another human being (Rose et al., 2002). They refer to country in the same manner as they do a person, even using the word as if it were a proper noun:

Country is a living entity with a yesterday, today and tomorrow, with consciousness, action and a will towards life. Because of this richness of meaning country is home and peace; nourishment for body, mind and spirit; and heart’s ease. (Rose et al., 2002, p14)

Indigenous people consider country and everything that belongs to it as sacred; this includes animals, plants, and minerals. Country is to be treated with respect (van den Berg, 2002). Vital importance is placed upon rituals and ceremonies that affirm and strengthen their links with country (Pascoe, 2012).

Dreaming is another integral concept in Indigenous culture and society, a religious belief that involves the idea of ancestral beings who created the world and have a social relationship with humanity (Muecke & Shoemaker, 2010). It incorporates an enduring life force that embraces past, present, and future (Pascoe, 2012), and as such does not include a chronological aspect (Muecke & Shoemaker, 2010). Indigenous people convey their religious beliefs through detailed stories of these ancestral beings which explain the formation of natural features and often involve animal forms such as rainbow serpents (Muecke & Shoemaker, 2010; Pascoe, 2012). Dreamtime stories, as they are known, are a vital tool for teaching Indigenous culture, as well as for imparting a code of conduct and behaviour and demonstrating a pattern of life (Muecke & Shoemaker, 2010; Pascoe, 2012). According to Pascoe (2012), Indigenous culture is based on a contract called law, which is the agreement to follow the ancestral rules so there will be a continued flow of fertility and power from the spiritual realm. It also
implies custodianship of land and sacred sites and relationships with people (Muecke & Shoemaker, 2010). Atkinson notes that it involves ‘traditional knowledge, wisdom, learning, erudition, information and science’. Law also includes ceremonial processes designed to resolve conflict between people (Atkinson, 2002, p. 27).

Relationships in Indigenous society are considered extremely important and are governed by a strict and complex set of rules known as kinship (Muecke & Shoemaker, 2010). The relationships between groups and individuals are classified in many ways: language group, one of the important classifications, is based on an individual’s biological ancestry (Smith, 2004). As it is designated by birthright, language group also indicates the association between a person and their country (Smith, 2004), and is closely related to another relationship system, known as clan membership, which is assigned based on an individual’s country. Skin group is a further nomenclature: inherited from the mother, it traditionally governed whom a person is permitted to marry (Smith, 2004). These intricate sets of affiliations create a strong sense of relatedness, interconnection, and family that is bound by loyalty and behavioural expectations (Smith, 2004), developing a robust and extensive network of relationships that extended beyond immediate relatives (Broome, 1994). Although Indigenous children know who their parents are, they consider many others in a very similar manner (Muecke & Shoemaker, 2010): for instance, the sisters of a child’s biological parents are also thought of and referred to as ‘mother’ by the child (Muecke & Shoemaker, 2010).

Historically, Indigenous Australian communities were semi-nomadic, hunter–gatherers (Broome, 1994). They travelled large distances on a seasonal basis governed by food supply and the cultural requirement to attend ceremonies (Muecke & Shoemaker, 2010).
The men hunted for large game such as kangaroo and goanna, using spears, clubs, and boomerangs (Pascoe, 2012). The women used digging sticks to dig up yams, gathered fruits, vegetables and seeds, and caught small animals (Broome, 1994). According to Smith (2004), although Indigenous people used a number of native drugs and alcohol, use was strictly controlled by the elders. Overall, this indicates that Indigenous people typically engaged in positive health behaviours that included substantial physical activity, a nutritious diet low in fat and carbohydrates, and a restricted use of harmful substances.

The settlement of Europeans in Australia had a profound impact on the health behaviour of Indigenous Australians (Horton, 1991; van den Berg, 2002), both indirectly and directly (Rose et al., 2002). Indirect influences originated from the process of colonisation, which reduced public access to land and natural resources. This restricted or prevented Indigenous people from travelling through their ancestral land in search of food (Muecke & Shoemaker, 2010). Settlers exposed Indigenous people to diets high in carbohydrates and fats. They were introduced to tobacco (Michael Gracey, 2000; Smith, 2004). In addition, settlers provided a readily accessible supply of alcohol (Smith, 2004). The arrival of the European settlers brought extensive detrimental changes to Indigenous Australians’ health behaviours and had a severe negative impact on subsequent health outcomes (Michael Gracey, 2000).

During the colonisation of Australia, racism was pervasive (Muecke & Shoemaker, 2010). The settlers forced Indigenous people to live in missions and on reserves where freedom to hunt, socialise with relatives, practice traditional ceremonies, and marry were restricted (Smith, 2004). Segregation and assimilation policies were introduced, along with institutionalisation and geographical restrictions (Reynolds, 1982). In some
instances, Indigenous people were also severely punished for speaking their traditional language, practicing their culture, and teaching their children their history and traditions (Pascoe, 2012). The restrictions and conflict associated with colonisation led to loss of liberties and life and irrevocably altered Indigenous Australians’ cultural and social behaviour (Broome 1994).

Indigenous history is entrenched with racism and marginalisation. According to van den Berg (2002), a legal and psychological barrier associated with colour prejudice and discrimination separated Indigenous people from white Australians. The legal barrier remained in place until 1967 when a national referendum instigated a constitutional amendment that resulted in Indigenous Australians becoming citizens of Australia (Muecke & Shoemaker, 2010). Although this would imply they have equality and therefore are no longer subjugated by marginalisation or discrimination, some historians argue that the attitudes and actions of the Australian public does not substantiate this (Horton, 1991; Moores, 1995).

**Contemporary Indigenous Australians**

Many Indigenous Australians have kept the connections of the formalised familial system (Broome, 1994), but as a consequence of the historical restriction on kinship associations, recognition of the complicated classification system has typically not been maintained (Pascoe, 2012). Connections to the extended family, and the concept of kinship, have nonetheless remained extremely important (Muecke & Shoemaker, 2010; Reilly, Doyle, Bretherton, & Rowley, 2008; Smith, 2004). The loyalty and obligation that surrounded the historical familial system are still an integral aspect of Indigenous life (Smith, 2004), and Indigenous people regard the whole tribal group as family
(Broome, 1994). For instance, Nyoongar\(^1\) people feel a sense of connection to others simply because they too are Nyoongar.

Continuing tradition, this sense of connection extends to places as well as people (Pascoe, 2012; Reilly et al., 2008). Several researchers recognise that contemporary Indigenous Australians often feel a strong connection to the land (Broome, 1994; Horton, 1991; Moores, 1995; Muecke & Shoemaker, 2010; Pascoe, 2012; Rose et al., 2002; Smith, 2004). For many Indigenous people, the term country maintains its significance and distinction in referring to ancestral land (Reilly et al., 2008; Rose et al., 2002), and current use of the term persists in invoking the sense of something stronger than mere occupation and ownership of land (Rose et al., 2002; Smith, 2004).

Past atrocities have created long-term physical and psychological effects on Indigenous people and are trans-generational (Atkinson, 2002). This historical legacy is reflected in numerous statistics and psychosocial circumstances that indicate that discrimination and racism towards Indigenous people still exist in Australia (Atkinson, 2002; Australian Bureau of Statistics, 2012a; Kelaher, Ferdinand Paradies, 2014; Paradies & Cunningham, 2009). For instance, in the 2011 census, 27% (7,982) of prisoners in Australia were Indigenous Australians, making their imprisonment rate 15 times higher than non-Indigenous prisoners (ABS, 2012b). Indigenous Australians were twice as likely to leave school before Year 12 than non-Indigenous Australians, with 25% of Indigenous people reporting that they completed Year 12 or equivalent at high school compared with 52% of other Australians (ABS, 2012a). Unemployment rates also reveal a disparity, with 17% unemployment for Indigenous people compared with 5% for non-Indigenous Australians. Indigenous people are less likely to own their own

\(^{1}\) An Indigenous group originating from the south west of Western Australian
homes and more likely to live in substandard accommodation (ABS, 2012a).

Despite changes in legislation aimed at abolishing racism, the practice continues both covertly and overtly (Kelaher et al., 2014; Paradies & Cunningham, 2009). Interpersonal and systemic acts of racism are reported in a variety of contexts (Kelaher et al., 2014; Larson, Gillies, Howard, & Coffin, 2007; Paradies & Cunningham, 2009, 2012), indicating that the essence of the colonisation process remains, and remains pernicious, in Australia.

**The Intersection of History and Health**

The ongoing disparity in health outcomes between Indigenous people and their non-Indigenous counterparts suggests that Indigenous Australians’ unique circumstances need to be examined more thoroughly. Research into the factors that influence the elevated incidence of health risk behaviour in the Indigenous population may assist in enhancing their health outcomes, and ideally will provide information for the development of interventions that encourage changes in behaviour and, subsequently, promote positive changes in their health outcomes. The brief account of Indigenous Australians’ historical and contemporary situation emphasises their unique situation. It also suggests that a culturally sensitive and appropriate approach must be used when conducting research among this sector of the Australian population.

**Research Objective and Approach**

The aim of this study is to explore the factors that influence the health behaviour of Indigenous people in WA by combining culturally appropriate methodology with theoretically-based analysis. This study has three objectives:

1. to seek a broad understanding of the possible influences on health behaviour by
gaining the opinions and perspectives of people who support Indigenous community members in WA;

2. to explore the factors that influence health behaviours from the perspective of Indigenous people living in two WA Indigenous communities, one metropolitan and one regional; and

3. to examine the factor, or factors, that Indigenous community members consider most supportive of health behaviour.

**Structure of the Thesis**

This thesis comprises seven chapters. Chapter 1 presented the background relating to Indigenous health behaviour and research objectives. Chapter 2 provides a review of the literature relating to Indigenous Australians’ health behaviour. As there is limited research into Indigenous Australians’ health behaviour, the social determinants that influence the health outcomes of Indigenous Australians are also examined in order to identify aspects that may be relevant. The literature review also presents methodological approaches suitable for use with marginalised and vulnerable groups. Chapter 3 outlines the general methodology used to conduct this study, and describes the methods that have been incorporated in more than one component of it; methods used only in one particular component are described in the relevant chapter. Chapters 4, 5 and 6 present the results in manuscript format: Chapter 4 incorporates a social–ecological model to present factors that influence Indigenous Australian’s health behaviour from the perspective of people who support Indigenous community members, Chapter 5 includes factors from the perspective of Indigenous people living in two West Australian communities using a grounded theory approach, and Chapter 6 focuses on social support in the lives of Indigenous Australians in a West Australian metropolitan community, examining the influence that such support can have on health behaviour.
Finally, Chapter 7 is a general discussion of the findings from the various components of the research. It also highlights the limitations of the studies and includes recommendations and suggestions for health promotion practitioners.
Chapter 2

Literature Review

This literature review provides a background for a series of three studies which are presented in manuscript format within subsequent chapters of this thesis. The overarching aim of the studies was to explore factors influencing health behaviour of Indigenous Western Australian community members. This research was conducted in response to the need to address the greater burden of ill health suffered by Indigenous Australians compared with their non-Indigenous counterparts (Booth & Carroll, 2005; Zhao, Wright, Begg, & Guthridge, 2013). The present study focuses specifically on health behaviour for two reasons: the prevalence with which Indigenous Australians participate in health risk behaviours; and the association between health risk behaviour and poor health outcomes.

Given the paucity of research concerning Indigenous Australians’ health behaviour, further insight is sought by examining the literature regarding the factors that influence health outcomes. The literature review is presented in three sections: the first examines the factors influencing health behaviour; the second investigates the factors that affect Indigenous health outcomes; and the third explores the methodological concerns associated with conducting research with Indigenous participants. Table 2 provides an overview of the flow of the literature review to assist readers in understanding the scope and breadth of the literature covered.
Table 2 Outline of the literature review

Factors Influencing Indigenous Australians’ Health Behaviour

Factors Influencing Indigenous Australians’ Health Outcomes

Conceptual models of the social determinants of health
   - Social determinant models with relevance to Indigenous Health

Research exploring the social determinants of Indigenous Health
   - Socio-economic factors
      - Socio-economic disadvantage
      - Socio-economic disparities in health outcomes

   - Culture

   - Social interactions
      - Social capital and Indigenous Australians
      - Social support

   - Racism
      - Interpersonal racism and mental health
      - Interpersonal racism and physical health
      - Interpersonal racism and the Australian health sector
      - Systemic racism
      - Prevalence of racism towards Indigenous Australians

   - Psychological distress

General Comments

Methodology

Methodological rigour

Participatory action research

Qualitative methods
   - Individual interviews
   - Focus groups
   - Yarning

Summary and Research Opportunity
Factors Influencing Indigenous Australians’ Health Behaviour

While health risk behaviours are prevalent among Indigenous Australians and the deleterious effects of such behaviours are apparent (Calabria, Doran, Vos, Shakeshaft Hall, 2010; Mathers, Vos, Stevenson, & Begg, 2001), there is limited research into the factors that influence Indigenous Australians’ health behaviour (Carson, Dunbar, Chenhall & Bailie, 2007). Studies in this area mainly focus on the factors that influence smoking (e.g., Ivers, 2003; Johnston & Thomas, 2008; Passey et al., 2011; Wood et al., 2008). Even less research investigates the factors that influence other health behaviours, such as physical activity (e.g., Nelson et al., 2010), consumption of alcohol (e.g., Alati, Liamputtong, & Peterson, 2003; Brady, 1993), and dietary behaviour (e.g., Abbott, Davison, Moore, & Rubinstein, 2010; Brimblecombe et al., 2014); the majority of information gleaned from the literature is related to smoking. Nevertheless, the research to date has revealed several factors that appear to influence Indigenous health behaviour.

The social environment was often cited as having a strong influence on health risk behaviour (Johnston & Thomas, 2008; Nelson et al., 2010; Passey, D’Este, & Sanson-Fisher, 2012; Wood et al., 2008). Smoking was considered a social norm by participants in many studies (Johnston & Thomas, 2008; Wood et al., 2008). The role social networks play in perpetuating smoking behaviour was especially significant in areas with a high prevalence of smokers (Johnston & Thomas, 2008; Passey et al., 2012; Wood et al., 2008); but social connections were also considered to play an important role in encouraging participation in physical activity, especially sports activities (Nelson et al., 2010).

Maintaining relationships and the associated obligation to share resources appeared to
have substantial influence on smoking behaviour (Briggs et al., 2003; Johnston & Thomas, 2008; Passey et al., 2011; Wood et al., 2008). Johnston and Thomas (2008) mentioned that smoking was an entrenched behaviour reinforced by the expectation to share resources, and suggested that smoking might be an important mechanism for strengthening bonds in situations where other resources are limited. Smoking was deemed a powerful social lubricant that facilitates yarning (traditional conversation) and social bonding (Wood et al., 2008). In particular, the strong connections with family members including extended family or kin could be reinforced by shared smoking behaviour (Ivers, 2003). On occasion, the social isolation encountered when declining to participate in communal food was identified as a barrier to dietary change (Abbott et al., 2010). Social pressure from these connections also had a particularly significant influence on smoking and alcohol consumption behaviour (Brady, 1993; Johnston & Thomas, 2008). Brady (1993) suggested that the influence of social pressure was reinforced by the cultural importance of sharing.

Cultural factors were considered to add another layer of complexity that interacted with social dynamics (Brady, 1993; Johnston & Thomas, 2008). The cultural emphasis placed on sharing resources and reciprocity bolstered the social motivation to share (Brady, 1993); and social connection was often considered a cultural priority, which further emphasises the importance of strengthening and maintaining relationships (Passey et al., 2012). According to Brough et al. (2006), Indigenous cultural identity (Aboriginal identity) has a significant role in the formation of social networks. In light of this, Passey et al. (2012) suggested that smoking might be associated with acceptance and belonging in these networks.

Colonisation of Australia contributed significantly to the health risk behaviour of
Indigenous Australians. In particular, the colonising Europeans introduced the Indigenous population to a number of detrimental substances, including tobacco and sugar (Briggs et al., 2003; Passey et al., 2011; Wood et al., 2008). Brimblecombe et al. (2014) referred to a lack of balance in food choices resulting from historical changes to Indigenous Australians’ diet that were imposed during colonisation. These changes pioneered a taste and reliance on substances such as sugar that have been passed on to subsequent generations.

The social consequences of colonisation including dispossession of land and loss of language, culture and social systems were also cited as contributing to the high rate of tobacco smoking among Indigenous Australians (Alford & Muir, 2004). Exposure to racism was also associated with increased tobacco smoking, marijuana use, and excessive alcohol consumption (Zubrick et al., 2005). In addition, the marginalisation of Indigenous Australians and the associated socio-economic disadvantage was considered to increase the likelihood of their engaging in health risk behaviours such as smoking and consuming excessive amounts of alcohol (Brady, 1993; Wood et al., 2008). Boredom, stress, and over-crowding, results of unemployment and diminished socio-economic circumstances, were also considered to influence smoking and alcohol consumption behaviour (Alati et al., 2003; Johnston & Thomas, 2008; Passey et al., 2011; Wood et al., 2008).

The several factors that influenced Indigenous Australians’ health behaviour included a range of social determinants commonly associated with general health outcomes, including social and cultural contexts and socio-economic circumstances (Carson et al., 2007; Marmot, 2005). Some health risk behaviours such as excessive consumption of alcohol and tobacco smoking were also linked to social and cultural disruptions.
associated with colonisation (Alford & Muir, 2004; Brady, 1993), and the stress associated with subsequent socio-economic disadvantage (Wood et al., 2008). Given the paucity of research concerning Indigenous Australians’ health behaviour, further insight is sought by examining the literature regarding the factors that influence health outcomes. In particular, the social determinants of health will be examined to glean insights relevant researching factors that influence Indigenous health behaviour.

Factors Influencing Indigenous Australians’ Health Outcomes

Research into the factors that affect the health outcomes of Indigenous Australians emphasises the impact of social determinants on their health (Brunner & Marmot, 1999). Models have been developed to depict the influence of social determinants on health outcomes such as morbidity, mortality, cardiopulmonary fitness, hypertension, and wellbeing (Berkman & Glass, 2000; Brunner & Marmot, 1999; Turrell & Mathers, 2000). Some of these models indicated that health behaviour may also be affected by social determinants (Brunner & Marmot, 1999; Turrell & Mathers, 2000), and therefore it would be prudent to explore the insights such models can provide into factors that may affect Indigenous health behaviour.

Conceptual models of the social determinants of health

Several conceptual models have been developed to describe the complex and interacting relationships between social determinants of health and health outcomes (Berkman & Glass, 2000; Brunner & Marmot, 1999; Turrell & Mathers, 2000; Williams, 1997). These models generally depict multilevel structures involving interrelated levels, with upstream, midstream, and downstream factors (Carson et al., 2007; Turrell & Mathers, 2000; Turrell, Oldenburg, McGuffog, & Dent, 1999; Williams, 1997). The midstream factors mediate and moderate the effect of upstream clusters on downstream factors.
The upstream (macro) level includes the social determinants of health, such as economic factors or culture. The midstream (intermediate) level often includes psychosocial and behavioural factors, and access to health care. The downstream (micro) level includes changes to physiological and biological functioning occurring as a consequence of influences at other levels. The models vary in the factors and levels included, and where the boundaries between levels are set; therefore, several models need to be examined to provide a comprehensive understanding of the social determinants that may affect Indigenous health and enhance researchers’ comprehension of the complex issues under investigation (Anderson, 2007).

Social determinant models with relevance to Indigenous health

Four models appear particularly pertinent to the health of Indigenous Australians (Anderson, 2007): Berkman and Glass’s (2000) conceptual model of how social networks impact on health (see Appendix A); Turrell and Mathers’s (2000) model of social determinants of health (see Appendix B); Brunner and Marmot’s (1999) framework of socio-economic health determinants (see Appendix C); and Williams’s (1997) framework for the study of the role of race in health (see Appendix D). Table 3 compares the four models with respect to the factors they include and the levels each factor appears in. All the models depict culture, socio-economic status/factors, psychological and social factors, health behaviour and health outcomes. Socio-economic status/factors have been listed as both upstream and midstream, highlighting their influence at multiple levels. There are more midstream than upstream factors, indicating that there are many factors mediating or moderating the upstream influences. While some factors are included in all the models, none is positioned at exactly the same level in all, highlighting the complex and often unclear delineation between layers in different samples and contexts. Other factors are not represented in all models but
still may contribute to Indigenous health outcomes: for instance, racism (Paradies & Cunningham, 2012). While none of these models is based on research specifically focused on Indigenous Australians, each highlights elements relevant for gaining perspective in this area. Berkman and Glass’s (2000) and Brunner and Marmot’s (1999) models present causational patterns based upon a range of theories developed in the fields of epidemiology, psychology, and sociology; the other two originate from a more discrete focus and include causational patterns based on the literature regarding health in Australia (Turrell & Mathers, 2000) and the role of race in health (Williams, 1997). Although developed from Australian research, Turrell and Mathers’s model (2000) focuses predominantly on socio-economic factors and does not include other factors considered crucial to Indigenous health such as racism (Brough et al., 2006; Paradies & Cunningham, 2012).

Each of the four models presented in this section has several layers comprising numerous factors. For example, in Berkman and Glass’s (2000) model there are four layers and a total of 69 factors. It is beyond the scope of this review to explicate each of these; instead, the models have been gleaned for the factors deemed most pertinent in research involving Indigenous Australians. These were determined by on the prevalence and emphasis with which they were cited in the literature and models concerning health.
<table>
<thead>
<tr>
<th>Factors</th>
<th>Berkman and Glass</th>
<th>Brunner and Marmot</th>
<th>Turrell and Mathers</th>
<th>Williams</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture</td>
<td>U</td>
<td>I</td>
<td>I</td>
<td>U</td>
</tr>
<tr>
<td>Racism</td>
<td>U</td>
<td>—</td>
<td>—</td>
<td>U</td>
</tr>
<tr>
<td>Politics</td>
<td>U</td>
<td>—</td>
<td>U</td>
<td>U</td>
</tr>
<tr>
<td>Socio-economic</td>
<td>U</td>
<td>M</td>
<td>U</td>
<td>M</td>
</tr>
<tr>
<td>Social</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change</td>
<td>U</td>
<td>M</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment</td>
<td>M</td>
<td>U</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structure</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exclusion</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychological/psychosocial</td>
<td>D</td>
<td>M</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>Health care</td>
<td>—</td>
<td>—</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>Health behaviour</td>
<td>D</td>
<td>M</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>Life course</td>
<td>—</td>
<td>I</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>Physiological</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>—</td>
</tr>
<tr>
<td>Health outcomes</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>D</td>
</tr>
</tbody>
</table>


Legend: U: upstream, M: midstream, D: downstream, I: included but not associated with a stream.

Note: Berkman & Glass (2000) and Turrell and Mathers use the stream nomenclature in their diagrams, Williams’ diagram is set out in columns that depict these streams, and Brunner and Marmot’s does not appear to include any.

The models examined in this literature review propagate the perspective that health behaviours should be considered as downstream or midstream factors linked to more influential factors (Berkman & Glass, 2000; Brunner & Marmot, 1999; Turrell & Mathers, 2000). Several social determinants feature prominently in all the four models: socio-economic status/ factors, culture, social and psychological factors (psychological
distress), and health behaviour. While these are presented as upstream, midstream or downstream in various models, they are always present. In light of this, the literature examining these factors may provide guidance for conducting research into the determinants of Indigenous health behaviour.

**Research exploring the social determinants of Indigenous health**

**Socio-economic factors**

Each of the models mentioned acknowledges the importance of socio-economic factors. Berkman and Glass’s (2000) and Turrell and Mathers’s (2000) place these factors in the upstream level, indicating their overarching influence on health outcomes, while Brunner and Marmot (1999) and Williams (1997) acknowledge the influence of factors that drive the socio-economic situation, placing them later in the causational flow. Regardless of where they are positioned in these models, their underlying significance is evident. Research confirms that socio-economic factors impact on the health of Indigenous Australians (Booth & Carroll, 2005; Carson et al., 2007; Cunningham, 2010b; Cunningham et al., 2008; Shepherd, Li, & Zubrick, 2012; Zhao et al., 2013).

Research into associations between socio-economic circumstances and health predominantly focuses on the distribution of the socio-economic resources (often referred to as socio-economic factors) available to an individual or population. A number of factors, such as income and employment, are commonly considered to provide a measure of socio-economic circumstance (ABS, 2011g). Socio-economic measures of disadvantage, including lower levels of education, limited income, and inadequate housing, are frequently linked to Indigenous health outcomes (Booth & Carroll, 2005; Cunningham, 2010; Shepherd, Mitrou, & Zubrick, 2012). Studies quantify the socio-economic resources (factors) available to participants by referring to
their socio-economic status (SES). Ultimately, this is a reflection of an individual’s employment and economic circumstances, predominantly based on income, education, and employment (ABS, 2011g; Cunningham, 2010c).

*Socio-economic disadvantage*

Indigenous Australians frequently have low SES and experience high levels of socio-economic disadvantage (Andrews, 2012; Booth & Carroll, 2005). Table 4 presents the means of the socio-economic variables for the Indigenous and non-Indigenous populations. Compared with their non-Indigenous counterparts, the proportion of Indigenous people with education below year 10 is higher and the proportion with post-secondary qualifications is lower. Unemployment and non-participation in the labour force is higher among Indigenous than non-Indigenous Australians (AIHW, 2012). The gross weekly equivalised household income among Indigenous people is low and their dependency upon welfare is high; they are more likely to live in overcrowded and rental accommodation (Andrews, 2012).
Table 4 Socio-economic measures by Indigenous status

<table>
<thead>
<tr>
<th>Socio-economic variable</th>
<th>Indigenous (%)</th>
<th>Non-Indigenous (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time employment</td>
<td>31</td>
<td>46</td>
</tr>
<tr>
<td>Part-time employment</td>
<td>21</td>
<td>19</td>
</tr>
<tr>
<td>Unemployed</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Not in the labour force</td>
<td>40</td>
<td>33</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education below Year 10</td>
<td>29</td>
<td>14</td>
</tr>
<tr>
<td>Year 10 education</td>
<td>35</td>
<td>23</td>
</tr>
<tr>
<td>Year 12 education</td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>Vocational education</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>Diploma</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>Degree</td>
<td>5</td>
<td>18</td>
</tr>
<tr>
<td>Weekly income (Deciles)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $150</td>
<td>23</td>
<td>9</td>
</tr>
<tr>
<td>$150 - $199</td>
<td>18</td>
<td>11</td>
</tr>
<tr>
<td>$200 - $249</td>
<td>16</td>
<td>9</td>
</tr>
<tr>
<td>$250 - $353</td>
<td>10</td>
<td>9</td>
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<td>$354 - $499</td>
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</tr>
<tr>
<td>$500 - $632</td>
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<td>9</td>
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<td>$633 - $766</td>
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<td>10</td>
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<td>$767 - $958</td>
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<td>11</td>
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<td>$959 - $1291</td>
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<td>11</td>
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<tr>
<td>$1292 or more</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Welfare main income</td>
<td>47</td>
<td>26</td>
</tr>
<tr>
<td>Household Crowding</td>
<td>25</td>
<td>4</td>
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<tr>
<td>Tenure Type</td>
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<tr>
<td>Owner occupied household</td>
<td>25</td>
<td>Not available</td>
</tr>
<tr>
<td>Renter</td>
<td>73</td>
<td>47</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>Not available</td>
</tr>
</tbody>
</table>

Source: Andrews, 2012, p12
Socio-economic disparities in health outcomes

Comparing the patterns of SES and health across Indigenous and non-Indigenous Australians provides insight into the impact of these factors. According to Zhao, Weight, Begg, and Guthridge (2013), one-third to one-half of the difference in health outcomes between Indigenous and non-Indigenous Australians can be explained by SES disparities. Using data collected from two nationally representative surveys (including 5471 Indigenous and 15,432 non-Indigenous respondents) conducted in parallel, Cunningham investigated the association between SES and self-reported cardiovascular disease (CVD) (2010b), diabetes (2010a), asthma (2010c), and arthritis (2011). Five SES indicators, education, income, employment, housing, and SEIFA (socio-economic index for areas; index of relative disadvantage) were referred to in this research. The study indicated that the prevalence of all four diseases was higher in the Indigenous population than in the non-Indigenous for people of the same age and SES category for all measures (Cunningham, 2010a, b, c, 2011). While socio-economic disadvantage appeared to contribute to poor health outcomes, Cunningham concluded that this failed to fully explain the higher prevalence of CVD, diabetes, asthma, and arthritis than in the non-Indigenous population. She was suggested that other factors transcending the SES spectrum might substantially affect Indigenous Australians’ health outcomes, including culture, racism and discrimination, stress (distress), childhood adversity, and a legacy of loss, grief, and dispossession.

The conclusions from these studies suggest that socio-economic circumstances do not completely account for disparities in health outcomes between Indigenous and non-Indigenous Australians. This implies that other factors may have an influence on Indigenous Australians health outcomes, suggesting that there is a need to look beyond
socio-economics when researching Indigenous health behaviour.

**Culture**

Culture is another factor that may affect Indigenous health outcomes. As mentioned earlier, each of the four models considered in this review included culture as a factor that affects health outcomes. Berkman and Glass (2000) and Williams (1997) positioned culture in the upstream level of their models, while Brunner and Marmot (1999) alluded to the influence of culture on health but did not include it in the causational flow. Brough et al. (2006) noted that Aboriginality (cultural identity) was considered very important by many Indigenous Australians. Bond (2007) strengthened the importance of Aboriginality by suggesting that rather than being a factor that supported health outcomes, Aboriginality was synonymous with health and wellbeing.

The link between culture and health has begun to find traction in health research, with many researchers noting the protective effect of culture on health outcomes (Brough et al., 2006; Browne-Yung, Ziersch, Baum, & Gallaher, 2013; Dockery, 2010; Newman et al., 1999). The significance of culture appears to be inferred by references to the detrimental effect of the inherently non-Indigenous cultural focus of the Australian health system (Bishop, Vicary, Mitchell, & Pearson, 2012; Henry, Houston, & Mooney, 2004; Kowal & Paradies, 2005) while a strong cultural identity is associated with lowered engagement in health risk behaviour (Dockery, 2010); While research is limited, the importance placed upon culture and cultural identity emphasises this aspect to be considered when investigating the factors that affect health behaviour.

**Social interactions**

The conceptual models discussed above indicate the relevance of social (interactive) factors such as social networks, social connections, and social support in health
outcomes. Three of the models depict social factors at the midstream level (Berkman & Glass, 2000; Turrell & Mathers, 2000; Williams, 1997), while Brunner and Marmot (1999) place it at the beginning of the causational flow of their model, indicating its pervasive influence on health outcomes. In this model, social influence operates via three pathways: material circumstances, social environment, and work (Brunner & Marmot, 1999). In light of the cultural and personal importance Indigenous people place upon social networks (Browne-Yung et al., 2013; Gallaher et al., 2009), it should be considered in any investigation into factors that affect their health behaviour.

Indigenous Australians typically have large social networks (Browne-Yung et al., 2013; Gallaher et al., 2009; Hunter, 2000). Their creation and maintenance is inextricably intertwined with cultural identity (Brough et al., 2006; Browne-Yung et al., 2013). Gallaher et al. (2009) reported that maintaining connections within their social networks was a priority for most Indigenous people as it was in the context of these relationships that they considered other aspects of their lives, such as the value of work, money, home ownership, and health; this illustrates the cultural importance placed upon social interactions and connection (Berry, 2009; Lahn, 2012).

Social interactions and connections have predominantly been explicated through research examining the social capital of Indigenous Australians (Baum, 1999; Brough et al., 2006; Brough, Henderson, Foster, & Douglas, 2007; Browne-Yung et al., 2013). While consensus on a single definition of social capital is difficult to find, all these researchers include references to social networks and the benefits they provide individuals (Bourdieu, 1986; Coleman, 1988; Putnam, 2000). For example, in her review of the social capital literature relevant to Indigenous communities, Mignone (2009) noted that social capital was a ‘relational resource composed of a variety of
elements, most notably social networks, social norms and values, trust and shared resources’ (p. 105). This definition encourages examination of social capital at individual and societal levels. Within such examination, the structures of individuals’ social networks are examined to determine the types of relationship they involve. Social networks usually involve a combination of bonding (associations involving homogeneity), bridging (associations involving heterogeneity) and linking (interactions across authority gradients) relationships (Putnam, 2000; Szreter & Woolcock, 2004); research suggests that it is optimal to have a social network that includes all types of social capital (Gottlieb & Bergen, 2010). Investigations into social capital often include the processes that led to the capital, the capital itself, and the outcomes of the capital (Carpiano, 2006).

Social capital and Indigenous Australians

Social capital has been used variety of contexts involving Indigenous Australians (see Brough et al., 2006; Hunter, 2000, 2004, 2009; Lahn, 2012; Osborne, Ziersch, Baum, & Gallaher, 2012; Shulver, 2012). While furthering knowledge in these contexts, it also supports key insights into the social capital of Indigenous Australians (Bandis, 2010; Baum, 2007; Berry, 2009; Brough et al., 2006; Hunter, 2004; Lahn, 2012; Osborne et al., 2012; Shulver, 2012). Some of this research indicates that mental and physical health outcomes are affected by social capital (Berry, 2009; Browne-Yung et al., 2013). In consideration of the documented associations between social capital and health, findings may provide insight in the context of Indigenous health behaviour (Browne-Yung et al., 2013; Kawachi, Kennedy, & Glass, 1999).

Their shared history and culture is considered to promote bonded relationships between Indigenous people (Brough et al., 2006; Browne-Yung et al., 2013). Conversely, the
oppressive colonisation and subsequently marginalisation of Indigenous Australians may have restricted their social networks to include predominantly Indigenous people; often family, including extended family or kin (Baum, 2007; Gallaher et al., 2009; B. H. Hunter, 2000; Lahn, 2012). Such relationships, especially within family networks, provide a key source of material resources such as money, food, transport, accommodation, care-giving, employment opportunities, and psychological support (Berry, 2009; Browne-Yung et al., 2013; B. H. Hunter, 2000; Lahn, 2012). However, in some instances the obligations associated with dense social networks consisting primarily of close bonded relationships (common in family groups) are detrimental to health (Browne-Yung et al., 2013). For example, Lahn (2012) noted that Indigenous people found it challenging to maintain work commitments which clashed with family responsibilities, with the consequent psychological and physical difficulties of such situations possibly detrimental to health outcomes and health promoting behaviour. These outcomes could include the use of unhealthy coping strategies (e.g., smoking and consumption of alcohol), a decline in mental health, or a reduction in the availability of material resources necessary for addressing health needs.

Berry (2009) provided key insights into the association between social capital and mental health for Indigenous Australians, establishing that greater levels of social capital were associated with lower psychological distress and greater feelings of happiness. He noted that informal connectedness (bridging relationships) was related to happiness but not necessarily to lower psychological distress. Breadth of connections, as occurs when individuals have bridging relationships, was associated with less psychological distress as long as the connections did not include political participation. This indicates that high levels of social capital can be psychologically beneficial, providing they comprise bridging capital. It was also determined that level of
participation was more important than the enjoyment derived from the associations, and Berry suggested this indicated a sensitivity to being excluded or exploited by others.

Given its oppressive history and contemporary racism, Australia lacks the social environment that would promote civic trust and bridging relationships between Indigenous and non-Indigenous people (Baum, 2007; Brough et al., 2006; Browne-Yung et al., 2013; Gallaher et al., 2009; Hunter, 2000). Indigenous people consider trust essential for social cohesion (Osborne et al., 2012), so lack of trust may be a barrier to their developing bridging relationships with non-Indigenous Australians. Gallaher et al. (2009) mentioned that some Indigenous people considered themselves strongly disadvantaged and not supported by society. Indigenous Australians have been frequently socially excluded via unemployment and the effects of racism (Baum, 2007; Hunter, 2000; Walter, 2009). According to Baum (2007), being socially excluded perpetuates a deficit of material resources and educational opportunities. While alluding to the benefits of bridging capital, Hunt (2004) explained that when social capital is limited to others who are excluded by society, this situation is exacerbated.

Brough et al. (2006) expressed reservations about the cross-cultural validity of social capital, a concept and theory formulated in a non-Indigenous cultural context that included North American and European populations (Bourdieu, 1986; Coleman, 1988; Putnam, 1995, 2000). Subsequently, research in Indigenous populations has considered social capital but the body of knowledge regarding its validity in these populations is limited (Mignone, 2009). It has been suggested that extra contextual elements, such as socio-historical and cross-cultural dimensions, need to be included when investigating non-Indigenous social capital (Shulver, 2012).
Social support

Internationally, the connection between health outcomes and social capital has been examined thoroughly in the context of social support (Croezen et al., 2010; Richmond & Ross, 2008; Richmond, Ross, & Egeland, 2007). The essence of social support does not differ greatly from social capital: both centre on the components of social networks and the benefits gained from being involved in them (Carpiano, 2006; Williams, 2005). However, social support is typically described in terms of the type of support provided (Williams, 2005). Descriptions can include functional areas, which may be emotional, instructional, practical, appraisal, and informational (Berkman, Glass, Brissette, & Seeman, 2000), as well as therapeutic outcomes, both positive and negative (Barrera, 1986; Croezen et al., 2010). Such research into the effect of social support emphasises there is a possibility of detrimental outcomes from some types of support (Croezen et al., 2012).

Belonging to large social networks may compromise the therapeutic effects of support, particularly when it involves numerous bonded relationships (Mitchell & Mark, 2002; Thoits, 1995). The obligation to support numerous people can cause strains on an individuals’ time and resources (Burt, 1992; Mitchell & Mark, 2002). Gottlieb and Bergen (2010) noted that the directionality of support can also impinge upon its therapeutic effect; ‘directionality’ was their term for the flow of support between people. They explained that bi-directional support, which flows between two parties who take turns in providing and receiving it, reduces the likelihood that one party will be overwhelmed by the requirement to be supportive. Conversely, unidirectional support, where one party constantly supports another, may lead to over-burdening which can undermine the therapeutic value of the interaction for the supportive party.
Such unidirectional support patterns commonly occur when family members are providing care to a relative who is debilitated and unable to reciprocate.

Overall, the discrete focus of social support research enables a thorough discussion of its outcomes (e.g. Croezen et al., 2010, 2012; Richmond & Ross, 2008; Richmond et al., 2007). International research in this area has provided insight into the factors affecting the health of Indigenous groups such as the First Nations and Inuit communities in Canada (Richmond & Ross, 2008; Richmond et al., 2007), identifying the health-enhancing and health-damaging properties of social support. Negative dimensions can significantly outweigh positive ones, particularly in high-density networks (Richmond & Ross, 2008). Apparently the potential for negative consequences to arise from social support becomes more significant in populations where stressful circumstances such as poverty or discrimination are prominent (Richmond & Ross, 2008). As Indigenous Australians generally exist in such stressful circumstances (e.g., low SES and marginalised), consideration of the effects of social support may provide new insights into their health behaviour.

**Racism**

Racism is included as a factor in two of the models examined earlier; it is positioned as an upstream factor in both Berkman and Glass’s (2000) and Williams’s (1997) models. In Williams’s model, which focuses on the role of race in health, racism and culture are placed prominently in its three upstream factors. Berkman and Glass’s (2000) model includes racism as a subheading under culture, one of four groups of factors at the upstream level. Research indicates that racism has had a considerable influence on the health of Indigenous Australians, both directly and indirectly, by reducing access to societal resources (Paradies & Cunningham, 2012; Priest, Paradies, Gunthorpe, Cairney,

The literature provides many definitions of racism (Paradies, 2006a). A succinct version by Berman and Paradies (2010) defines it as the manifestation of oppression that exacerbates or maintains inequality among racial and ethnic groups. Racism is conveyed through prejudice, stereotyping, or discriminatory behaviours and actions that are triggered by racial and ethnic differences (Paradies & Cunningham, 2012). It can be interpersonal, involving direct interactions between people; or systemic, a result of the practices and policies of societal organisations and institutions (Paradies, 2006a). Research is mainly focused on interpersonal racism, presumably because systemic racism can be difficult to identify in an organisation or institution (Paradies, 2006b; Paradies & Cunningham, 2012; Paradies et al., 2008).

*Interpersonal racism and mental health*

The connection between interpersonal racism and the mental health of Indigenous Australians has been identified as a particular concern (Gallaher et al., 2009; Kelaher et al., 2014; Paradies et al., 2008; Priest et al., 2011b). Research demonstrates high levels of interpersonal racism directed at Indigenous Australians (Ferdinand, Paradies, & Kelaher, 2012; Kelaher et al., 2014; Larson et al., 2007; Priest et al., 2011b), with many participants report being subjected to several recent encounters of racist encounters (Ferdinand et al., 2012; Kelaher et al., 2014). Regular experiences of interpersonal racism have been associated with poor mental health outcomes (Gallaher et al., 2009;
Kelaher et al., 2014; Larson et al., 2007; Paradies & Cunningham, 2012; Priest et al., 2011a). Acute and chronic stress are significant mediators between interpersonal racism and health, indicating that being the victim of racism acts as a form of stress that leads to ill-health (Paradies & Cunningham, 2012). Perceived lack of control associated with experiences of racism may also mediate its effect on health (Paradies & Cunningham, 2012). Previous research involving minority groups and Indigenous populations from other countries has shown that cultural identity acts as a buffer for racism-related stress (Heim, Hunter, & Jones, 2011; Howe, Heim, & O’Connor, 2013; Mossakowski, 2003); however, research with local Indigenous populations has yet to identify this relationship.

Interpersonal racism and physical health

The association between interpersonal racism and physical health has also been established (Larson et al., 2007; Priest, Paradies, Stewart, et al., 2011; Ziersch, Gallaher, Baum, & Bentley, 2011b). For example, figures gathered via a national survey of 10,439 Indigenous Australians indicated that respondents with self-reported diabetes (12.5%), heart disease (13.3%) and cancer (17%) had experienced racism in the last 12 months, compared with only 6.5% of respondents without chronic conditions (ABS, 2006). A variety of connections between racism and ill-health has been proposed, including reduced and unequal access to resources such as employment, housing, medical care, and social support (Paradies, 2007; Priest, Paradies, Stevens, & Bailie, 2012); increased exposure to health risk factors such as toxic substances (Krieger, 1999; Paradies et al., 2008); direct impacts on health through physical assault (Paradies et al., 2008); stress and negative emotions that contribute to mental ill health and associated adverse physiological responses and reactions by the immune, endocrine and
cardiovascular systems (Cunningham, 2010b; Paradies et al., 2008; Ziersch et al., 2011b); and responding to racism by engaging in health risk behaviours such as smoking and consuming alcohol or drugs (Paradies et al., 2008; Ziersch et al., 2011b). For instance, the Western Australian Aboriginal Child Health Survey reported that exposure to racism was associated with increased tobacco smoking, marijuana use, and alcohol consumption (Zubrick et al., 2005). Importantly, the suggested pathway from racism to ill-health is mediated predominantly through mental processes (Paradies & Cunningham, 2012).

Interpersonal racism and the Australian health sector

Despite the emphasis on the connections between interpersonal racism and ill-health, there is a lack of knowledge regarding the extent of racism in health care in Australia (Paradies, Truong, & Priest, 2014). Experiencing interpersonal racism appears to be less common in health than in other settings (Kelaher et al., 2014; Paradies & Cunningham, 2009), but even so one third of the participants involved in a Victorian study recounted that they had recently experienced racism from a health care provider (Kelaher et al., 2014). A propensity to avoid situations where racism may be experienced may act as barrier to seeking health care (Ziersch et al., 2011b), and depriving Indigenous people of a health care environment that they perceive to be safe and free of racism contributes to psychological distress (Kelaher et al., 2014), a mediating factor for ill-health. Although international studies have indicated that race influences decision-making regarding health care providers, to date this aspect of the link between racism and ill-health has not been thoroughly examined in Australian research (Paradies et al., 2014).
Systemic racism within the health care system

The limited literature finding systemic racism in the Australian health care system suggests that current health policies do not recognise the differences between Indigenous and non-Indigenous cultures (Bishop et al., 2012; Henry et al., 2004; Kowal & Paradies, 2005; Martin-McDonald & McCarthy, 2008; Sherwood & Edwards, 2006). Health care policies are often inherently derived from a cultural perspective based on the dominant majority (Sherwood & Edwards, 2006). Inadequate funding of Indigenous medical services means that Indigenous people have to visit mainstream services (Scrimgeour & Scrimgeour, 2008) which may not cater adequately for them because they predominantly employ non-Indigenous staff and prioritise the time involved in consultations over creating relationships and rapport building with clients (Henry et al., 2004; Kowal & Paradies, 2005). In contrast to mainstream health services focused on time efficiency, Indigenous services focus more on the importance of establishing connections when disseminating information and administering help (Sherwood & Edwards, 2006).

The combination of non-Indigenous health professionals and limited time for rapport-building inhibits the development of trust (Henry et al., 2004). Indigenous mistrust of institutions that appears to originate from their history of oppression, means that establishing rapport and trust is considered essential when engaging Indigenous clients (Durey, Thompson, & Wood, 2012; Henry et al., 2004; Mooney & Houston, 2008). Non-Indigenous health care staff may have undergone cross-cultural training, intended to provide them with an understanding of Indigenous cultural priorities, including the importance of taking time to connection, but doubts have been raised about the validity of such training (Durey, 2010).
Concerns about the current health care system were summarised by Sherwood and Edwards (2006), who recommended that the system needed to be ‘decolonised’ by shifting it from the current western-dominant approach. This viewpoint infers that health care in Australia is an innately racist system and that racism is still prevalent. According to Durey et al. (2012), allowing Indigenous people to participate in the planning and implementation of their health care is an important part of the decolonising process (Durey et al., 2012). This indicates the need for more Indigenous-operated health care facilities, and more Indigenous health care workers to staff them.

**Prevalence of racism towards Indigenous Australians**

Interpersonal and systemic racism continues to affect Indigenous Australians today (Kelaher et al., 2014; Paradies & Cunningham, 2009; Priest Paradies, Stewart, et al., 2011), and continues to be documented in a variety of settings, including education, health, the legal system, and civic society (Paradies et al., 2008). Paradies and Cunningham (2009) noted that the number of participants who encountered racism in their place of employment (around 25%) and while in public spaces (around 25%) or utilising public services (around 30%), indicated that racism was pervasive across many important life domains. In these encounters participants were subjected to a variety of racist acts including name calling, jokes or teasing, and hearing stereotypic comments (Kelaher et al., 2014). According to Kelaher et al., people who experience racism are more likely to be above the threshold for high psychological distress than those who do not.

The link between racism and poor health outcomes is becoming firmly established, as is the evidence suggesting that being exposed to racist acts encourages engagement in health risk behaviours. The prevalence of racism in Australian society suggests that it
has a substantial and frequent influence on Indigenous people’s engagement in health
risk behaviour; however, the limited number of studies investigating the factors that
influence Indigenous Australians’ health risk behaviour prevent this from being
confirmed.

**Psychological distress and health outcomes**

Indigenous Australians are more likely to have high/very high levels of psychological
distress than their non-Indigenous counterparts (AIHW, 2009; Cunningham & Paradies,
2012). The 2004–05 NATSIHS report indicated that Indigenous Australians were two
times more likely to have high to very high levels of psychological distress than non-
Indigenous Australians (AIHW, 2009). Cunningham and Paradies’ (2012) more recent
investigation analysing the 2004–05 NATSIHS and National Health Survey (NHS) data
indicated that Indigenous Australians were three times more likely to have high levels
of psychological distress (VHPD) than non-Indigenous Australians. The 2008
NATSIISS indicated that 31% of Indigenous Australian reported high or very high levels
of psychological distress (ABS, 2011f), while Cunningham and Paradies (2012)
reported that 14.5% of Indigenous Australians reported VHPD. These studies provide
an indication of the levels of distress that occurs in Indigenous populations.

Research indicates an association between psychological distress and poor health
outcomes (ABS, 2011f; Australian Bureau of Statistics & Australian Institute of Health
and Welfare, 2008). Indigenous people with high/very high levels of psychological
distress are more likely than those with low/moderate levels of distress to report
fair/very poor health (39% compared with 13%) and less likely to report excellent or
very good health (29% compared with 49%) (ABS, 2011f). They were also more likely
to have a disability or long-term health conditions (69% compared with 38%) (ABS,
The summary report concerning the 2004–05 NATSIHS noted that approximately 10% of the Indigenous respondents had visited a doctor or health professional in the four weeks prior to the survey interview with feelings of psychological distress (AIHW, 2009). The association between elevated psychological distress and poor health outcomes is supported by the Indigenous population having proportionally higher rates of hospitalisation for self-harm and mental and behavioural disorders than the non-Indigenous population (ABS & Australian Institute of Health and Welfare, 2008). It has been reported that health risk behaviours, such as smoking, may be used as coping mechanism during times of distress (Wood et al., 2008), so research examining the factors that influence Indigenous health behaviour may usefully touch upon the issue of psychological distress.

**General Comments**

To date, the majority of health research, both empirical and theoretical, has been conducted from a non-Indigenous perspective, as is reflected by the content of this literature review. In light of this, Indigenous perspectives on health, including health behaviour, are warranted. A greater emphasis on the Indigenous definition of health, which is multi-dimensional and holistic, is considered crucial for gaining further understanding into the factors that affect health (Lock, 2007; National Aboriginal Health Strategy Working Party, 1989; Priest, Mackean, Davis, Briggs, et al., 2012). This involves seeking information directly from Indigenous people (Lock, 2007) and conducting research in collaboration with Indigenous groups (National Health and Medical Research Council, 2002; Priest, Mackean, Davis, Briggs, et al., 2012). Priest et al. have called for an ongoing exploration of Indigenous perspectives of health and wellbeing, spanning a range of populations across a variety of geographical locations. Such research could include investigation into the factors that influence Indigenous
Methodology

Due to the marginalised circumstances of Indigenous Australians, the methodological approach and methods used while conducting research with this group require consideration. Methodological approaches used in Indigenous research should be culturally appropriate and sensitive: it is imperative that they do not reinforce the marginalised status of the Indigenous population involved. However, methodological rigour must also be considered when selecting approaches to be used in academic research. The following section examines a number of methodologies in order to determine their suitability for research involving Indigenous Australians. In particular, the Participatory Action Research (PAR) approach will be examined because it is considered culturally sensitive and appropriate for use with marginalised groups (Liamputong, 2008)

Methodological rigour

Cultural sensitivity is an important issue when conducting ethical research in cross-cultural situations, especially in marginalised groups, and it is imperative that the methodologies used meet this requirement while maintaining academic rigour (Liamputong, 2008). Methodological rigour refers to demonstrating the integrity and legitimacy of research through the trustworthiness and generalisability of findings (Tobin, 2004); trustworthiness is ensured by using methods that are valid for the research question and produce reliable findings (Maxwell, 1992). Although both quantitative and qualitative methodologies can be trustworthy when performed with integrity, it is generally acknowledged that qualitative research does not produce
generalisable findings (Calder, 1977), and some researchers therefore consider that quantitative research offers more substantial rigour than qualitative research.

Methodological rigour in studies of Indigenous health can be challenging because of the necessity for the research to be culturally appropriate out of respect for the vulnerable and marginalised position of the participants (Liampittong, 2007). The historical legacy of diminished autonomy and marginalisation of Indigenous people also needs to be addressed through culturally sensitive research methods (Drew, Adams, & Walker, 2010), creating constraints that can determine the practicality and feasibility of research designs (Rowley et al., 2000; Sibthorpe & Bailie, 2002). Although quantitative methods may provide more inferential data, research constraints often require qualitative research methods, which may be more culturally appropriate as they centre on a participatory action approach (Liampittong, 2007).

**Participatory action research**

Participatory action research (PAR) is centred on producing knowledge while empowering those on whom the research focuses (Kendall, Sunderland, Barnett, Nalder, & Matthews, 2011; Liampittong, 2010; Pyett, 2007). Although there is debate over the concepts and processes that constitute PAR, there is consensus over its central precept: emancipation of the oppressed and marginalised through the actions and acquisition of knowledge (Baum, MacDougall, & Smith, 2006; Fals-Borda, 2005; Kendall et al., 2011; Liampittong, 2010). This is typically achieved through the four main PAR principles: participation, learning, empowerment, and social action (Kendall et al., 2011; van der Velde, Williamson, & Ogilvie, 2009), attained by meaningful participation. When using PAR it is paramount to consider every aspect of the research from the participants’ viewpoint, rather than from a purely academic orientation. This realigns the research
making it a joint venture, with decision-making, planning and responsibility shared between participants and research teams (Minore, Boone, Katt, Kinch, & Birch, 2004). Participants become co-researchers and gain control over the research setting, freeing the process from the artificial determination of the external researcher (Baskerville, 1999).

PAR is considered an appropriate methodology for research with Indigenous communities because it is aligned to the principles recommended for culturally sensitive research in Australia. This methodology removes power inequalities by consulting Indigenous community members during every aspect of the research process, thus allowing them to have a “voice” in the process; it provides a means to incorporate Indigenous knowledge with the principles of academic research in order to develop a comprehensive understanding of the situation; and it enhances scientific understanding by incorporating the knowledge and expertise of community members. Through these aspects the methodology actively involves and consults participants during the research process, which the National Aboriginal Health Strategy (NAHS) states is fundamental to research conducted in Indigenous communities (National Aboriginal Health Strategy Working Party, 1989; NATSIHC, 2003).

The approach also complies with the steps outlined in the National Health and Medical Research Council (NHMRC) Values and Ethics document (National Health and Medical Research Council, 2003), which are based upon developing an ethical relationship between participants and researchers in order to take into account the cultural differences and sensitivities of Indigenous people and to ensure the research promotes the wellbeing of participants. The Values and Ethics document outlines six components crucial for ethical research: reciprocity, respect, equality, responsibility,
survival and protection, and spirit and integrity. In PAR, these are embraced by encouraging community members to actively participate in the research process, from planning, collecting, and reviewing data, through to sharing and controlling the use of the findings (Erick, Mooney-Somers, Akee, & Maher, 2008; Esler, 2008; McIntyre, 2008). The underpinning rationale for PAR is to research ‘with’ the community rather than ‘on’ it. As a consequence, PAR is repeatedly recommended as a culturally sensitive and appropriate model for Indigenous research (Adams, Burns, Liebzeit, Ryschka, Thorpe, & Browne, 2012; Erick et al., 2008; Fletcher et al., 2011; Fredericks, Adams, Finlay, Fletcher, Andy, Briggs, Briggs, & Hall, 2011; Hill & Murphy, 1992; Johnston, 1991).

As a result of its culturally sensitive approach, PAR methodology has been successfully used in several areas of Indigenous research, including health, and has led to psychosocial benefits in conjunction with knowledge development (Esler, 2008; Fletcher et al., 2011; Lee, Midford, & Malone, 2012; Marika & Ngurruwutthun, 1992; Minore et al., 2004; Pyett, 2007; Tsey, Patterson, Whiteside, Baird, & Baird, 2002; Tsey et al., 2004). For instance, as a result of participating in the Yarrabah Men’s Health Group project in Queensland, aimed at improving the health and wellbeing of Indigenous men, participants expressed their sense of encouragement and hope for things to change in the future, and increased self-confidence to help others (Tsey et al., 2004). In another project report that the researchers identified that the PAR process built an understanding of reciprocity and developed the confidence and self-esteem of the participants, who were involved in developing an educational programme at the Yolngu community in Arnhem Land (Marika & Ngurruwutthun, 1992).

Despite its benefits and cultural appropriateness, the PAR methodology may present
some challenges (Erick et al., 2008). The process usually takes longer than other methodological approaches, which means keeping momentum and interest among co-researchers and participants is crucial but difficult (Erick et al., 2008; Tsey et al., 2004). The challenges that emerge while carrying out the constant analysis, reflection, and problem-solving process can become overwhelming for the co-researchers, and alleviating this requires creative solutions (Tsey et al., 2004). During participatory research co-researchers are often actively involved in the analysis and interpretation of the findings, which is a potential source of difficulty if their interpretation differs from that of the participants (Pyett, 2007). It has also been noted that people from disadvantaged backgrounds may not have the confidence, interest, time, or energy to participate in such an intense process (Pyett, 2007). As an example of the impact of these barriers, one study reiterated the issues surrounding confidence by observing that the ‘Indigenous Australians they were working with were more accustomed to being told what to do, rather than being asked for their opinion’ (Erick et al., 2008, p. 7); unforeseen family circumstances and family commitments were also found to be challenges to engagement, which led to the research taking longer than expected, so long that the research team changed during the process.

Overall, the benefits afforded by using the PAR methodology make it advantageous for use in the current research. The ability to engage participants in a research process that they direct makes this methodology particularly appropriate for the current research. As exploration of this nature is best conducted using qualitative methods, this review will conclude with a brief explanation of several such methods commonly used in research. Where appropriate, this will include information regarding their suitability for research conducted among Indigenous communities.
Qualitative methods

Qualitative methods are considered culturally sensitive to Indigenous Australians because the techniques used involve sharing ideas in a manner that is familiar to them (Breen, Hing, & Gordon, 2011; Hepburn & Twining, 2005). According to Silverman (2013), most qualitative approaches are centred on asking participants questions and making observations in the field. Qualitative methods can expedite the in-depth investigation of a topic (Onwuegbuzie & Leech, 2005), especially if the investigation is designed to obtain information governed by the biography of the individuals involved (Lehoux, Poland, & Daudelin, 2006). The communication techniques incorporated in these methods overcome any literacy issues that might be encountered during data collection by allowing verbal responses to questions (Turrell & Najman, 1995); it is also recognised that the personal interactions incorporated in many qualitative methods (i.e., interviews) facilitate relationship-building with participants. Silverman (2013) noted that this bridges social distance and is advantageous for research among marginalised groups. It may also encourage continued support of the study (Altman, 1995). The methods used commonly include interviews, focus groups, and observations (Liamputtong, 2010).

Individual interviews

Interviews can generate data that provides access to individuals’ motivations (Dichter, 1964) and the effects of external forces, such as social and cultural pressures, upon the thoughts and behaviours of an individual (Patton, 2002). Although they provide information that is crucial for understanding behavioural motivation, there are several disadvantages, the main ones the tendency for interviewees to exhibit a self-presentational view of themselves, which involves creating a public image that is congruent with their ideal image but not necessarily with how they normally act or
think; and the possibility that they may omit information that makes them psychologically uncomfortable, skewing the data collected (Baumeister, 1982). Although these aspects may distort an individual’s contributions, group member checking, and combining individual interviews with other data collection methods, can be a source of triangulation, offering opportunities to clarify the information obtained (as per Creswell, 2007).

**Focus groups**

Focus groups can be regarded as a social space in which participants co-construct ideas and perspectives by sharing, contesting and acquiring knowledge (Lehoux et al., 2006). They are often used in health settings to uncover the range and depth of experiences involved in a situation (Lehoux et al., 2006). Focus groups have been successfully used in studies to identify the determinants of smoking in several Indigenous groups, including those that are geographically determined, such as remote communities (Johnston & Thomas, 2008), and among life stage-specific groups, such as pregnant women (Wood et al., 2008). Focus groups are a useful method for developing consensus regarding opinions and knowledge relevant to a topic (Pettigrew & Pescud, 2013). In addition, the social dynamics that can be observed during these meetings provide pertinent information that is difficult to obtain using other methods (Calder, 1977).

Although interaction among the participants is a major benefit of this method, it also leads to some disadvantages (Calder, 1977). Primarily it presents difficulties in terms of moderating individuals’ participation by affording the opportunity for a small number of participants to dominate the group or prevent others from contributing (Fontana & Frey, 1994). In order to avoid exacerbating these tendencies, this method should be used prudently, especially when exploring sensitive topics. Focus groups can also be difficult...
to organise due to the logistical difficulty of bringing many people together at the same time (Pettigrew & Pescud, 2013).

**Yarning**

In Indigenous research, qualitative methods can be adapted to emulate yarning, a traditional form of conversation (e.g., Fletcher, 2011). The Nyoongar people use the term yarning to refer to talking with people, and it is commonplace in their lives. Using yarning as a research method shows respect for Indigenous tradition while putting the participants at ease with the familiar approach (Bessarab & Ng’andu, 2010); it cannot be engaged in until a relationship has been established between researcher and participant, showing respect for Indigenous manners and customs (Bessarab & Ng’andu, 2010). Traditionally, yarning commences with personal information regarding the speakers and their relatives, then flows into other topics of interest. Bessarab et al. (2010) stated that yarning involves an informal and relaxed discussion that allows participants and researchers to journey together, visiting topics of collective interest that are relevant to the research. Such conversations predominantly follow a story-telling format, with the answers to questions embedded in the stories. This format promotes the opportunity to obtain rich descriptions, filled with breadth and depth (Bessarab, 2012). However, these types of conversation can appear messy and meandering, and they can be time-consuming (Bessarab, 2012).

In one instance, yarning was utilised during a PAR project focused on developing a smoke-free workplace policy. The Goreen Narrkwarren Ngrn-toura – Healthy Family Air – project was conducted in conjunction with staff from an Indigenous community-controlled health organisation in Victoria (Fletcher et al., 2011). Yarning allowed participants to explore the emotional impact of smoking, smoking cessation at work,
and the development of a smoke-free workplace policy. The informal nature of the yarning sessions provided participants with the opportunity to converse freely about the topic, even though it involved talking about smoking, which participants identified as a sensitive issue because of its association to smoking-related illness and death.

**Summary and Research Opportunities**

Findings from this review have provided a background to the current state of knowledge regarding the factors that influence Indigenous health behaviour. To promote a more comprehensive understanding of the issue, the literature regarding the factors that influence Indigenous health outcomes was also consulted. Both sources of information suggest that a range of social determinants may substantially influence Indigenous Australians’ health behaviour. In particular, socio-economic disadvantage and the social and cultural environment may have an impact on engagement in health risk behaviour. However, limited research into this area prevents this being confirmed. Given the sensitivity surrounding Indigenous people and the impact of conducting research in this setting it is typically more appropriate to use methodologies that empower participants, such as PAR. In addition, qualitative methods such as interviews, focus groups, and yarning are deemed appropriate because Indigenous Australian culture values oral story telling as a means of communication.

In response to the lack of research into the factors that influence Indigenous Australians’ health behaviour, the aim of the current research is to explore the factors (and specifically the social determinants) that influence the health behaviour of Indigenous people in Western Australia (WA). This will be accomplished by combining culturally appropriate methodology with theoretically-based analysis.
Chapter 3
General Methods

This study focuses on Indigenous Western Australians and people who support them, some of whom are also Indigenous. This dual approach was taken in order to gain a range of opinions and perspectives on factors that influence the health behaviours of the groups under study. The (PAR) approach was employed in the components that involved the two sets of community members. The discussion that follows outlines the methodologies and methods used to explore the participants’ views on the topic of health behaviour. It includes information that is relevant to more than one component of the study, and is provided in order to avoid repeating the same procedures when they have been used multiple times during the study. Specific details relevant to individual components of the research are provided in subsequent chapters.

This chapter begins with a description of the methodology used in the study, followed by an explanation of the recruitment process, and the sample involved in the study. Details of the general procedures and methods of analysis are provided, concluding with discussion of the methodological limitations of the study.

Methodological Approach

This study used several qualitative methodologies, with the PAR approach employed as the overarching methodology governing the whole process, from construction of the research design through to interpreting and reporting the results. PAR methodology guided most aspects of the current study. Firstly, a local advisory group guided the construction, execution, and cultural appropriateness of the study conducted in their community. Secondly, liaison people were employed by the research team, and actively
contributed to every stage of the research. Finally, all participants were acknowledged as co-researchers (as per Lincoln & Guba, 1985; Mays & Pope 2000); this was practically achieved through meaningful remuneration, but also included ongoing interaction with the candidate, and several debriefings during the study, including a final one at completion. These aspects are expanded upon later in the chapter. In contrast, the research involving the support people was not conducted using PAR methodology as it was considered inappropriate for this phase of the research.

**Academic Consultation Process**

The construction, execution, and cultural appropriateness of the study were guided in the first instance by three University of Western Australia (UWA) academic staff members. While there were no Indigenous representatives in this group, the staff members all had experience in Indigenous research. During the initial construction phase, guidance was also provided by a steering group that convened on a monthly basis and included other UWA academics with expertise or interest in specific areas related to the research (e.g., Indigenous research, PAR, qualitative methods). Lastly, an academic advisory group composed from members of the wider WA academic community was established, to provide advice and guidance from key people in health promotion, management of Indigenous communities, and health organisations from across the State. This group comprised Indigenous and non-Indigenous people.

**Recruitment**

**Support people**

State-wide recruitment was conducted of people who had been actively involved in Indigenous work in some capacity for two years or more, including educationalists, community development officers, health promotions staff, counsellors, community
management and liaison people, and health professionals. To facilitate this geographically diverse recruitment, a combination of purposive and convenience sampling methods was employed (Andrews, 2013). This included placing an advertisement on a website known to be visited by those involved in Indigenous work; information presented at a Western Australian health sector meeting; and snowball recruitment, which involves obtaining referrals from one person to another through social networks (Streeton, Cooke, & Campbell, 2004). An initial list of potential participants was created from recommendations by the academic advisory group and associates within the networks of staff at UWA.

**Indigenous participants**

Recruitment of the Indigenous community members was conducted in a culturally appropriate manner, involving a specific sequence of events, to ensure a respectful process, and to promote relationship building. Recruitment entailed the following five steps:

**Step one: identifying study sites**

The candidate approached a variety of communities from regional, metropolitan, and remote areas. Various strategies were employed to identify possible communities, including recommendations provided by: (i) people working in academic institutions such as UWA, and other research related organisations such as the Western Australian Aboriginal Health Ethics Committee (WAAHEC); (ii) participants interviewed during a previous part of the study; (iii) health workers attending a sector meeting for Western Australian Indigenous health organisations, and (iv) those involved in organisations associated with specific communities.
**Step two: engaging with liaison people at potential sites**

Each approach to a prospective community began by developing relationships with people who could liaise between the candidate and the community members. The candidate, and in some instances the person who recommended the community, approached potential liaison people to discuss the study and invite them to become involved. In order to develop understanding and trust, the candidate met with these people several times before the next step began, paying heed to the necessity for rapport building.

**Step three: obtaining support from key leaders and organisations**

The liaison people were asked to facilitate the process of obtaining permission from key elders and leaders to engage their community in this research. This entailed discussions regarding the purpose of the study and what participation would involve. Written support from key members of the community was obtained before the recruitment process continued to the next step (See Appendices E, F). The liaison people also identified organisations that supported their communities. People from key organisations were consulted regarding the study and their support was also obtained before recruitment commenced (see Appendices F, G)

**Step four: engaging a community advisory group**

Once support from the key leaders was confirmed, the liaison people were employed to convene a group willing to act as advisors throughout the research; the details of this group’s role and that of the liaison people are outlined later in this chapter. One aspect of the advisory group’s role was to approve the materials and methods used in the recruitment of participants; once the groups were satisfied with the protocols the liaison people were asked to commence recruitment.
During this process, one community declined to be involved in the study. The elders of this community felt there was already extensive research being conducted in their community and they did not want to overburden the community members.

**Step five: recruiting community participants**

Recruitment of participants was conducted by the liaison people because it was considered culturally appropriate, and central to PAR. Their prior relationships with community members facilitated the process, and assisted the candidate to develop relationships with participants. In order to promote inclusivity, the liaison people were asked to recruit extensively by using existing community networks, such as a men’s group, as well as personal and professional networks.

Although written material was disseminated, a substantial amount of the recruitment was conducted by word of mouth and through social interactions with individuals, which produced a snowball effect. The liaison person explained the purpose of the study to potential participants, and what would be involved if they agreed to participate; they also informed them that the meeting would last approximately one hour. Each person who agreed to participate was assigned an appointment time that was convenient to them.

**Recruitment constraints**

The recruitment process was inclusive; however, several constraining factors determined which communities and individuals would eventually participate in the study. These included the time constraints imposed by the organisation funding the study (Australian Research Council) and the university (UWA) involved; the availability of the liaison people assisting with the research; cultural responsibilities
such as law; weather conditions e.g., cyclones), which hindered access to some communities at crucial times and consequently prevented their participation; prior research commitments and associated time requirements which excluded some communities from participating in the study; and conflict between family groups and consequent social constraints, which precluded some individuals and family groups from being approached to participate, or, if they were approached, which caused them to decline.

The research entailed repeated visits to the communities in order to establish relationships and collect data; therefore, geographical access to communities was a strong influence on the final selection of study sites. Although a considerable number of Indigenous people live in remote communities (27% in remote regions vs. 42% in regional and 32% in major cities) (ABS, 2011a; McDonald, Bailie, Brewster, & Morris, 2008) the difficulties associated with regular visits to such areas limited approaches to these communities.

**Participation eligibility**

People over the age of 18 who had been employed in Indigenous work in WA for two or more years were eligible to participate in the stakeholder component of this study. As mentioned earlier, this included but was not limited to educationalists, community development officers, health promotions staff, counsellors, community management and liaison people, and health professionals.

Any Indigenous person who resided in one of the study areas and was over the age of 18 was eligible to participate in the community component of the study. For the purpose of the study, people were considered Indigenous if they and their community identified them as such. The liaison people confirmed that participants met these requirements.
before the recruitment process began.

**Sample**

The individual components of the study involved different participants, so a detailed description of the total sample is not provided in a single place: instead, details of the sample involved in each component are located in the specific chapter that addresses the component. However, outlines of the two communities involved in the study are given below because members from each participated in both the community components of this study.

**Communities**

One regional and one metropolitan community were involved in the study, each of which is described below. The Nyoongar people are the traditional custodians of the land where this study was conducted, and the Indigenous people who reside in the area are often from this group. However, out of cultural respect, participants were not asked to disclose their Indigenous lineage or what group they were associated with (Oxfam Australia, 2012). Indigenous people do not necessarily live on their traditional lands and can move around (Collard & Bracknell, 2012), so it cannot be assumed that all people living in the areas involved in the study are Nyoongar.

**Regional community**

Bunbury is the regional town where this study was conducted. It is 172 kilometres from Perth’s Central Business District and is Western Australia’s third largest town, located by the Indian Ocean on the bounds of Geographe and Koombana bays (see Figure 2). Easy access to coastal waters, beaches, and bushland provides recreational and hunting opportunities for residents, and are home to a variety of animals that are traditional food
sources for Indigenous Australians, such as kangaroo and fish. According to the Australian Bureau of Statistics (2013a), the town has 32,580 people, 3.1% of whom are Indigenous.

![Figure 2 Map of the south-west of Western Australia](image)

**Figure 2 Map of the south-west of Western Australia**

The town’s Indigenous population is dispersed among the population, rather than living in a dedicated community. There are specific support facilities for the Indigenous people in the area, including Goomburrup Aboriginal Corporation; Aboriginal Challenge Employment Service (ACES), which helps Indigenous people find employment; South West Aboriginal Medical Service (SWAMS) whose aim, as stated on their website,\(^2\) is ‘to provide high quality, holistic and accessible services to the Nyoongar people of the South West Region of Western Australia’; and social groups

such as the Maamun danjoo koorliny waankininy men’s group.

SWAMS provides medical services to the south-west corner of the state, which includes the area involved in this study. According to their 2011–2012 Annual report they have a client base of 11,456, with the Bunbury area providing 47% of that, or 5386 clients (South West Aboriginal Medical Service, 2012). For a number of reasons, including privacy issues and the transient nature of the Indigenous population, it is difficult to establish an accurate understanding of the health condition and concerns of the Indigenous people in the area. The organisations consulted for statistical information use different geographical boundaries to describe the parameters of the regional area: for instance, the area referred to in the SWAMS statistics includes Australind and Gelorup, but these are not included in the ABS statistics. Therefore, although the statistics presented in Table 5 provide an insight into the service activity figures for SWAMS at the time of the study, and the statistically derived estimates of the Bunbury portion of those figures, they do not provide conclusive information regarding the services provided to the people in the study or their health needs. Further, Indigenous people are not restricted to seeking help from service providers dedicated to supporting Indigenous Australians, and therefore some of the participants may have sought other sources of assistance and support.
Table 5 SWAMS Health Service Activities for 2011–2012

<table>
<thead>
<tr>
<th>Service</th>
<th>Female</th>
<th>Male</th>
<th>Total for Catchment Area</th>
<th>Total for Bunbury</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clinical Contact</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doctor</td>
<td>9124</td>
<td>4288</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurse</td>
<td>8499</td>
<td>3995</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allied Health</td>
<td>1244</td>
<td>585</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indigenous Health Worker</td>
<td>4468</td>
<td>2100</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Health Checks</strong></td>
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<td></td>
</tr>
<tr>
<td>General</td>
<td>185</td>
<td>87</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GP Management Plan</td>
<td>25</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team Care Arrangement</td>
<td>22</td>
<td>11</td>
<td></td>
<td></td>
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<tr>
<td><strong>Home and Community Care</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Services (HACC)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Case Management</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Assessments</td>
<td>48</td>
<td>105</td>
<td>153</td>
<td>72</td>
</tr>
<tr>
<td>Client Care</td>
<td>15</td>
<td>81</td>
<td>96</td>
<td>45</td>
</tr>
<tr>
<td>Counselling/ Support</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Domestic Assistance</td>
<td>538</td>
<td>1324</td>
<td>1862</td>
<td>875</td>
</tr>
<tr>
<td>Enrolment</td>
<td>8</td>
<td>13</td>
<td>21</td>
<td>10</td>
</tr>
<tr>
<td>Exit</td>
<td>6</td>
<td>10</td>
<td>16</td>
<td>8</td>
</tr>
<tr>
<td>Social Support</td>
<td>113</td>
<td>670</td>
<td>783</td>
<td>368</td>
</tr>
<tr>
<td>Transport</td>
<td>306</td>
<td>449</td>
<td>355</td>
<td>167</td>
</tr>
<tr>
<td>Meals</td>
<td>30</td>
<td>0</td>
<td>30</td>
<td>14</td>
</tr>
<tr>
<td><strong>Patient Encounters</strong></td>
<td>1–5</td>
<td></td>
<td>1601</td>
<td>752</td>
</tr>
<tr>
<td></td>
<td>6–10</td>
<td></td>
<td>382</td>
<td>180</td>
</tr>
<tr>
<td></td>
<td>&gt;10</td>
<td></td>
<td>428</td>
<td>201</td>
</tr>
</tbody>
</table>

(South West Aboriginal Medical Service, 2012)

**Metropolitan community**

The second study site was located in the south-western suburbs of Perth, and was conducted at the South Lakes Ottey Family and Neighbourhood Centre in South Lakes (hereafter the Ottey Centre). Several limiting factors, including the lack of facilities dedicated to helping Indigenous people and the dispersed and sometimes transient
nature of the Indigenous community in Perth, meant the study centred upon those who were associated with the Solid Women Aboriginal Corporation. This group was created to support local Indigenous people with psychosocial and health concerns; it was based at The Ottey Centre at the time of the study, but has since moved. The association with a group rather than an actual location meant the participants involved in the study were not necessarily from the same suburb or even from one directly adjoining the venue. They were, however, mainly from suburbs to the south-west of Perth’s CBD, including South Lakes, Hamilton Hill, Success, and Beaconsfield.

The dispersed and metropolitan locality of this group meant that although some had the benefit of easy access to coastal facilities, others did not; and no substantial bushland was within the immediate vicinity of any of the participants in this group. This meant that the natural resources that were available did not provide the same hunting opportunities as were available in Bunbury, and the participants did not have ready access to traditional food sources including native species such as goanna.

Also in contrast to the Bunbury area, there were no easily accessible organisations dedicated to supporting Indigenous people. Perth’s Indigenous population is serviced by one Aboriginal Medical Service, Derbarl Yerrigan Health Service Inc. According to its website\(^3\) it is an Indigenous community-controlled organisation which delivers a wide range of health services across multiple sites in Perth. The closest site to The Ottey Centre is 20 kilometres away in the suburb of Maddington. Fremantle hospital, part of the South Metropolitan Health Service, a WA government organisation, and several other private providers are located closer to the study suburbs, but their services are not dedicated solely to Indigenous people. However, the South Metropolitan Public Health

\(^3\) http://www.derbarlyerrigan.com.au/
Service does have an Indigenous Health Team. According to their website\(^4\) this team ensures that health services in the area are culturally appropriate and meet the needs of the local Indigenous population. This includes providing education, such as the Journey of Living with Diabetes, and other healthy lifestyle programs. In addition, one suburb has an organisation\(^5\) that uses peer modelling to attend to the needs of Indigenous young people and their families, providing advocacy, programmes, and networking opportunities.

Given the range of health care providers accessible to the metropolitan group involved in the study, it was not possible to present an accurate account of the services this group accessed. Table 6 provides an insight into the service activity figures for Derbarl Yerrigan’s Maddington facility during the time of the study; however, this facility does not cater exclusively to the area involved in the study.

Accurate comparison of the two locations of health service activity could not be managed because of the variations in reporting criteria used by the two Aboriginal Medical Services.


\(^5\) [http://haloleadership.com/](http://haloleadership.com/)
Table 6 Derbarl Yerrigan Health Service Activities for 2011–2013

<table>
<thead>
<tr>
<th>Service</th>
<th>Female</th>
<th>Male</th>
<th>Total for Maddington</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Contact by Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4249</td>
<td>2574</td>
<td>6823</td>
</tr>
<tr>
<td>Clinical Contact by Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 – 4 years</td>
<td>408</td>
<td>400</td>
<td>808</td>
</tr>
<tr>
<td>5 – 14 years</td>
<td>230</td>
<td>240</td>
<td>470</td>
</tr>
<tr>
<td>15 – 24 years</td>
<td>680</td>
<td>210</td>
<td>790</td>
</tr>
<tr>
<td>25 – 34 years</td>
<td>500</td>
<td>300</td>
<td>800</td>
</tr>
<tr>
<td>35 – 44 years</td>
<td>600</td>
<td>220</td>
<td>820</td>
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<tr>
<td>45 – 54 years</td>
<td>770</td>
<td>400</td>
<td>1370</td>
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<tr>
<td>55 – 64 years</td>
<td>710</td>
<td>520</td>
<td>1230</td>
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<tr>
<td>65 – 74 years</td>
<td>190</td>
<td>220</td>
<td>410</td>
</tr>
<tr>
<td>75 years and over</td>
<td>90</td>
<td>35</td>
<td>125</td>
</tr>
<tr>
<td>Specialist Service Encounters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ophthalmologist</td>
<td>79</td>
<td>56</td>
<td>135</td>
</tr>
<tr>
<td>Paediatrician</td>
<td>105</td>
<td>77</td>
<td>182</td>
</tr>
<tr>
<td>Psychiatrist</td>
<td>20</td>
<td>16</td>
<td>36</td>
</tr>
<tr>
<td>Specialist Physician</td>
<td>77</td>
<td>59</td>
<td>136</td>
</tr>
<tr>
<td>Diabetes Educator</td>
<td>128</td>
<td>129</td>
<td>257</td>
</tr>
<tr>
<td>Dietician</td>
<td>129</td>
<td>98</td>
<td>227</td>
</tr>
</tbody>
</table>

Source: Derbarl Yerrigan Health Service Inc., 2013

The role of liaison people and community advisory groups

The liaison people and advisory group members ensured the study was conducted in a respectful and culturally appropriate manner. They came from the communities involved, and so were able to provide information regarding cultural aspects specific to their group, as well as concerning the wider Indigenous community. Their involvement contributed to the participatory focus of the research, which relied on self-determination in research and collaborative input from participants (Fals-Borda, 2005; Liamputtong, 2007).

The liaison people were employed to be directly involved in every stage of the research. Initially they acted as intermediaries, introducing the candidate to the communities’ key
members and elders. They were then responsible for identifying and recruiting people to participate in the study. All written information and procedures were produced in consultation with them, and they were actively involved in the data collection meetings, the debriefing and member checking processes, and the development of the themes arising from the data.

The community advisory groups were involved in several parts of the research. The information given to the participants and the format to be used for discussions and other interactions with participants were developed in conjunction with this group. Some members were involved in facilitating meetings when data were collected. To ensure cultural appropriateness and respect for their communities’ traditions and beliefs, the themes that emerged from the study were discussed with this group before being presented to participants. To be a member of this group, participants had to be respected within their community or hold a leadership role, such as being an elder. In the spirit of inclusivity, they were invited to become participants if they wished; in this way, consulting the advisory group about the themes contributed to the member checking process.

**General Procedures**

**Ethical considerations**

Ethics approval was obtained from WAAHEC (See Appendix H) and from the Human Research Ethics Committee of UWA (see Appendix I). Approval was also obtained from elders representing the communities in the study and other relevant organisations (see Appendices E, F). At the first meeting, the participants were provided with documents that outlined the purpose of the research, the study requirements, and contact details for the research group members (See Appendices J, K). This was accompanied
by a verbal explanation, to ensure the participants thoroughly understood the purpose of the study and the requirements of involvement. Once this process was complete and the candidate had answered all questions arising from the process, the participants provided their written consent to participate in the study (See Appendices L, M).

**Materials**

The documents used in the community meetings were constructed in collaboration with the liaison people and the community advisory groups, and therefore were deemed culturally and locality appropriate. Interview and focus group protocols comprised questions and appropriate prompts to facilitate discussion of the participants’ perspectives and opinions (see Appendices N, O). The questions in the protocols were largely open-ended in order to gain in-depth responses rather than have the participants respond in a prescribed fashion (Gill, Stewart, Treasure, & Chadwick, 2008). The open-ended format was also integral to the yarning process and the PAR approach. A short questionnaire for community members was also devised in consultation with the liaison people and community advisory groups (see Appendix P). More detail regarding the protocols is provided in the individual method sections of the following chapters.

Several photographs and images were used as stimulus material in the community focus group meetings. Note-taking material and digital audio recordings were used throughout the data collection, with permission from participants. The candidate also kept a diary during the data collection and analysis process (as per Silverman, 2013).

**Data Collection**

**Meetings**

A series of meetings were organised to conduct the interviews, focus groups, and debriefing and member checking sessions. These were held at times and places
convenient for the participants and liaison people. The interviews with people who supported Indigenous community members were conducted in a variety of venues including offices, restaurants, and cafes. The Ottey Centre was the venue for meetings conducted in the metropolitan community; rooms at Goomburrup Aboriginal Corporation and a local football club were used for the Bunbury community meetings. Reminder telephone calls were made by the recruiter the night before each meeting to ensure participants were able to attend their appointments.

To comply with their cultural norms and demonstrate respect for the people involved, every community meeting was supplied with morning and afternoon tea. For the focus groups and debriefing meetings, lunch was also provided. The liaison officers were consulted regarding the menu for each meeting and, where possible, local Indigenous organisations provided the catering.

Community members were offered assistance with transportation to the meetings. This was organised and conducted by the liaison people, who contacted the participants prior to each meeting to discuss their transport needs and preferences. This process was conducted for several reasons, associated with accommodating the needs of the participants and ensuring attendance at the meetings. The participants were offered the opportunity to be collected by a liaison person in a bus or car, or to travel by taxi. This variety was offered not only to overcome the logistics of transportation, but also to demonstrate respect for the participants as it was recognised that some had distinct transportation preferences.

The meetings were conducted by the candidate in conjunction with the liaison people. They followed appropriate protocols and were guided by the semi-structured interview guide; however, the yarning process dictated that the protocols were not strictly adhered
to. Before the meeting began the participants were reminded that their attendance was voluntary and they could withdraw without prejudice at any stage throughout the project. In addition, it was explained that although the meetings were audio recorded, the data collected would be de-identified and would remain confidential and stored in a secure location. Individual written consent was also obtained before the meetings proceeded. After each meeting involving Indigenous community members, the participants were given a Coles/Myers gift voucher to the value of AUS$30 in recognition of the time and expense they had incurred. Additional details of the procedures involved in the interviews and focus groups are provided in the chapters addressing individual components of the study.

**Yarning**

Yarning was used in the interviews and focus groups held during this study in acknowledgement of its cultural significance to the participants, and in order to provide a culturally appropriate context for the research. It was recognised that the participants’ familiarity with the term and the method would help them feel comfortable during the meetings. As this method promotes collaboration, which is the main focus of the PAR approach employed throughout the study, it was doubly suitable.

**Data security**

Upon completion of the analysis, these items (transcripts, consent forms, and digital recordings) were placed in secure storage at UWA, where they will be retained for seven years, after which the digital recordings will be erased and the written material destroyed.

**Data analysis**

The data set from each component of the study was analysed in the same way. This
involved an independent thematic analysis of each data set, by the general procedures of outlined below. On occasions there were slight variations in procedure, resulting from the incorporation of different methodologies in various components of the study: for instance, the community focus group data were analysed thematically using only inductive processes, as is required when using a grounded theory approach. In contrast, the data sets for the other two components underwent both deductive and inductive analysis. Further information on the analysis of data sets from specific components of this study is provided in subsequent chapters.

**Coding**

The thematic analysis of each data set was conducted consecutively, using similar methods throughout. First the interviews and focus group discussions were transcribed verbatim; then the transcripts were imported into QSR NVivo 10 (a qualitative data analysis software program), ensuring the data for the different components of the study were kept separate to enable them to be analysed individually. The candidate analysed the data from the interviews conducted with people who support Indigenous community members, and once this analysis was complete, the process was repeated for the community focus group information, and finally the community interviews. The data from the regional and metropolitan locations were also analysed independently to allow the information to be considered, in the first instance, as discrete units based on location. Subsequently, similarities and differences between the themes identified in each set were compared.

For each data set, the analysis began with the candidate repeatedly reading the content and immersing herself in the meaning of the transcripts to produce an empathetic understanding (Sparks, 1998). During this process, themes were identified and coded as
independent themes or sub-themes. To ensure accuracy of the coding, a constant comparison method was used (Maykut & Morehouse, 1994) which included re-reading, checking and, if necessary, revising previously analysed transcripts when new themes emerged.

**Trustworthiness issues**

Trustworthiness is central to the integrity of any qualitative research (Borman, Le Compte, & Goetz, 1986). This is accomplished by using a variety of methods to evaluate the quality of the candidate’s interpretation of data (Freeman, Marrais, Preissle, Roulston, & Pierre, 2007). During this study, trustworthiness was promoted in three major ways: by triangulating results, developing sensitivity and an empathetic stance towards the data, and revealing the candidate’s background prior to the study.

Several triangulation methods were used to enhance the trustworthiness of the data. These included incorporating two data collection techniques during the study and obtaining data from different sources. Focus groups and interviews were conducted to gain participant information, in line with prior studies that have indicated this can provide triangulation of the data (Oliver-Hoyo & Allen, 2006). In conjunction with this, data from several participant groups were obtained to enable verification of emergent themes as a means of triangulation; the candidate’s notes were also used in the triangulation process. In addition, transcript extractions, themes, and sub-themes were examined and discussed with the community advisory groups, other researchers from the academic advisory group and UWA academics (as per Creswell & Miller, 2000). This enabled the candidate to consider different perspectives and possible interpretations of the data.

Member checking was performed with both the individuals who participated in the
study and the community advisory groups that were consulted during its course; this technique is considered crucial for establishing credibility in qualitative research and provides another method of triangulation (Creswell & Miller, 2000). The process involved checking themes and sub-themes with the advisory group and then with the participants. Participant checking and debriefing meetings were conducted after each data collection phase.

The interpretations were compared with the candidate’s notes, as a means of reducing any bias and ensuring the trustworthiness of the process (as per Lincoln & Guba, 1985). Throughout the data collection and analysis the candidate’s thoughts, perceptions, and feelings related to the interviews and focus groups and those involved in them, and definitions and descriptions, were recorded. These notes enabled a reflexive process whereby the candidate considered possible bias, which encouraged constant awareness of how these could affect emerging interpretations (as per Creswell, 2007). This reflexive process supported methodological and interpretive rigour (Creswell & Miller, 2000; Silverman, 2013).

The candidate also enhanced the trustworthiness of the process by actively developing sensitivity and developing an empathetic stance towards the data (Maykut & Morehouse, 1994; Rubin & Rubin, 1995). This was achieved by repeatedly reading the data, alternating between data collection and data analysis. It has been identified that an empathetic stance contributes to the trustworthiness of the collation of data (Liamputtong, 2010; Maykut & Morehouse, 1994). The process promoted the ability to detect subtle clues that may have been missed because of bias, caused by prior knowledge or lack of understanding. The aim was to heighten controlled subjectivity in order to detect the most relevant experiences and incidents and delve into these issues.
more thoroughly (Borman et al., 1986).

The background and prior knowledge and experience of the researcher can be vital considerations in Indigenous research. Qualitative research has a subjective aspect that is produced by personal reality, which is derived from and influenced by many factors, and results in the possibility that situations can be viewed from different perspectives (Strauss & Corbin, 1990). There are two sources of such subjectivity in qualitative research: the participants and the researcher. The subjective views that participants provide may lead to specific perspectives and contribute to the uniqueness of the data. In particular, research involving Indigenous participants may provide novel insights that might not be considered by people from other ethnic groups or socio-economic circumstances. Any subjectivity on the part of the researcher may introduce bias (Silverman, 2013), whose prior knowledge and experience can sharpen or blunt alertness and sensitivity to certain concepts or themes (Strauss & Corbin, 1990).

In addition to its qualitative implications, there are relationship building and cultural implications attached to the identity of a researcher undertaking research in an Indigenous context; it is deemed advisable to declare the backgrounds of researchers in order to provide a context for the perspectives they may bring to their research.

The candidate in the present study is a non-Indigenous female raised and educated in New Zealand, but who lived in Australia for 10 years prior to the commencement of this research, at which time her knowledge of the historical events surrounding the colonisation of Australia was limited. Prior to the study, her personal experience of, and interactions with, Indigenous people was also minimal; however, having a background in education and psychology, she had been involved both personally and professionally with people from a range of age groups and a variety of cultural backgrounds. This
included working in regional New Zealand, where there were large numbers of Maori residents, and in the South Pacific where she worked with other Polynesian people in an educational setting. These experiences gave her an awareness of cultural diversity and of some aspects that differentiate cultures, centred upon collectivism from cultures that are centre upon a individualistic focus. Prior to commencement of the data collection, she travelled in the northern part of Western Australia, talking to local Indigenous people, and volunteered at an Aboriginal ‘heart health’ program in order to gain a better understanding of their situations and culture.

**Methodological Limitations**

The most likely methodological limitations that may affect this study arise from the characteristics of the sample and the candidate, and how the data were collected and analysed. The following is a discussion of the important aspects of these potential methodological limitations as they relate to this study.

The qualitative nature of the study means the findings cannot be generalised to the wider population as they are representative of a small sample of participants. In an attempt to moderate these qualitative limitations this study included two Indigenous communities from geographically different locations, providing an opportunity to compare and contrast themes and to conceptualise the factors more thoroughly.

The participants in this study resided in regional and metropolitan centres in Western Australia. Attempts were made to recruit widely from throughout the state, but time and financial constraints worked against this. The participants were self-selecting and therefore personal constraints including environmental and psychosocial factors influenced who participated in the study.
The reimbursement the Indigenous participants received for participating in the study may have added bias to the Indigenous community sample. The financial incentive may have encouraged some who in other circumstances would not have participated; it may also have discouraged others, who felt the incentive was not enough for any inconvenience. The amount given to participants was dictated by WAAHEC ethics requirements, and therefore was not in the control of the candidate.

Social aspects of the dynamics between the candidate and the participants may also have created bias. It is common for people to present themselves in a favourable manner during public interactions which may cause a desirability bias in the data collected (van de Mortel, 2008). Further, individuals are taught to conform in their behaviours, and in public situations they may adapt their comments to appear to conform (Kluckholn, 1967). This is significant in Indigenous culture where people have been taught to conform to the expectations of others and therefore might be reluctant to express individual thoughts (Erick et al., 2008). In an attempt to alleviate these sources of bias, the study included multiple data sources and the candidate sought to build trusting relationships with the participants.

There are often substantial differences between what people say they do and what they actually do (Adler & Adler, 1994). This leads to the need for discretion when relying on data generated via self-report mechanisms (Huberman & Miles, 1994). In particular, verbal accounts alone cannot be relied upon to reveal motivation for behaviours, as the need to be accepted often ensures that taught responses are provided by participants (Kluckholn, 1967). Not only are individuals taught to conform in their behaviours: they are also taught to defend their behaviours in a way that discredits the importance of pressure to conform. Participants may also choose to deceive researchers if they
consider it appropriate (Nachman, 1984). Therefore, it is appropriate to evaluate situations using more than one method in order to maximise the opportunity for triangulation, which may confirm themes and ensure the integrity of data (Silverman, 2013). In light of this, field notes including observations were used in conjunction with information from conversations with community members and people who work in support roles in Indigenous communities.

In congruence with PAR methodology, yarning was employed during the focus groups and interviews to ensure cultural appropriateness and respect for the participants; this meant that the direction of the conversations in the data collection meetings was dictated by the participants. However, interview and focus group protocols couched in culturally and contextually appropriate language were used to keep focus on the topic while attempting to place the participants at ease.
Chapter 4

Factors Influencing the Health Behaviour of Indigenous Australians: Perspectives from Support People

This chapter presents factors that influence Indigenous Australians’ health behaviour from the perspective of people who support Indigenous community members. A co-authored version of this is under second review at PLoS ONE: Waterworth, P., Pescud, M., Braham, R., Dimmock, J, and Rosenberg, M. ‘Factors influencing Indigenous people’s health behaviour: Perspectives from support people’.

Introduction

The disparities between the health of Indigenous and non-Indigenous populations continue to be prevalent within Australia (2012; Australian Institute of Health and Welfare, 2011; Council of Australian Governments, 2008). Indigenous Australians have a shorter life expectancy (10.6 years less for males and 9.5 years less for females) and worse health outcomes than their non-Indigenous counterparts (Australian Bureau of Statistics, 2012; Australian Institute of Health and Welfare, 2011). According to Vos et al. (2009), 70% of the health gap between Indigenous and non-Indigenous Australians can be explained by non-communicable chronic diseases, with cardiovascular disease being the largest contributor (23%), followed by diabetes (12%), mental disorders (10%), and chronic respiratory disease (9%). It is recognised that health risk behaviour has a substantial impact on many non-communicable diseases (Mathers, Vos, Stevenson, & Begg, 2000; Petrie, Doran, Shakeshaft, & Sanson-Fisher, 2008; Vos et al., 2009), and Indigenous Australians more frequently engage in detrimental health risk behaviours, such as smoking tobacco and misuse of alcohol and drugs (Vos et al.,
2009). For example, in a recent national survey, 43.8% of Indigenous Australians were reported to be current daily smokers, compared with 15.7% of non-Indigenous Australians (Australian Bureau of Statistics, 2013). In light of the association between health risk behaviour and health outcomes, reducing health risk behaviour among Indigenous Australians may improve their health outcomes.

The factors that influence Indigenous Australians’ health behaviour are poorly understood (Carson, Dunbar, Chenhall, & Bailie, 2007). Commonly, behaviour is driven by factors within the immediate control of the individual, such as perceived behavioural control and attitudes towards the behaviour (Ajzen, 1991). However, research indicates that factors beyond the choice/control of the individual may influence Indigenous Australians’ health behaviour (Nelson, Abbott, & Macdonald, 2010; Wood, France, Hunt, Eades, & Slack-Smith, 2008). For instance, in some circumstances, the social disruption associated with historical events appears to promote health risk behaviours (Dudgeon, Wright, Paradies, Garvey, & Walker, 2010; Hunter, 1993; Mitchell, 2007; Passey, Gale, & Sanson-Fisher, 2011). In particular, alcohol abuse and tobacco smoking have been linked with social disruptions (Hunter, 1993), and the stress associated with daily life may exacerbate the practice of health risk behaviours such as tobacco smoking (Passey et al., 2011; Wood et al., 2008). In light of the cultural emphasis on relationships, it has been identified that social networks may promote health risk behaviours such as smoking (Passey et al., 2011). While this may indicate that the health behaviour of Indigenous Australians is affected by sociological circumstances beyond their control, there appears to be limited research exploring this aspect (Carson et al., 2007; Gracey & King, 2009).
The association between health behaviour and factors that are beyond the control/choice of the individual suggests a broader sociological approach, employing a macro perspective, may be beneficial. This perspective enables the examination of factors that are associated with personal choice/control, in conjunction with factors that are beyond the choice/control of the individual (Brofenbrenner, 1977; Lynch, 2000). Thus, factors that are traditionally considered instrumental in behaviour development could be considered simultaneously with factors that may be more influential within an Indigenous context (Bagozzi, 1992; Cunningham, 2010; Perugini & Bagozzi, 2001).

Enquiry including a sociological perspective can be facilitated by the use of conceptual frameworks/models to assist the process of analysing the data (Brofenbrenner, 1977; Lynch, 2000). One sociological model that has found traction within health research, including Indigenous health research (Moore, Murphy, & Moore, 2011; Nelson et al., 2010; Priest, Mackean, Davis, Briggs, & Waters, 2012; Thurston & Vissandjée, 2005), is the social ecological model (Brofenbrenner, 1977; Lynch, 2000). Lynch’s (2000) iteration of this model categorizes factors into a series of social levels that impact upon the issue under investigation. These levels include broader societal influences (i.e., culture, politics, and discrimination), neighbourhood or community social interactions (social interactions and connections through groups and organisations), close social connections (i.e., friends and family), and individual characteristics (i.e., behavioural and psychological). This model may assist when analysing data associated with understanding a diverse range of factors that affect a topic under investigation.

Insights from observers who are closely associated with a particular group or individual provide data from an opportune perspective that may enable new revelations regarding the factors that influence health behaviour, especially when analysed using a social
ecological approach. In particular, people who provide support for groups or individuals are in a unique position to observe the people they support and the broader influences on the circumstances surrounding those people. Therefore, their perspective may encompass information regarding societal and community level factors, in conjunction with information regarding the effect of closer social connections. Prior research indicates that observers’/informants’ perspectives have provided valuable insight into the behavioural motivations of those they have personal or professional relationships with (Barnes, 2010a; Gould, Guinan, Greenleaf, & Peterson, 1999; Grimley, 1996; McLaren, 2009; Wood et al., 2008). For example, Wood et al. (2008) examined the factors that influenced Indigenous pregnant women’s smoking behaviour by seeking the opinions of health workers. Similarly, when Barnes et al. (2010a, 2010b) sought to understand the factors that influenced Indigenous health behaviour, allied health professionals in support roles (i.e., nurses and health workers) were interviewed. Although the opinions of people in support roles have been included in some Indigenous health related studies, the type of roles often appear to be limited to health professionals. In order to gain a wider perspective, it is considered advantageous to include an interdisciplinary approach (Henderson et al., 2007; McMichael, 1999). Consequently, the opportunity to include other support people such as educationalists or community development officers may provide a wider perspective on the factors that influence health behaviour.

Attempting to further the understanding of Indigenous health behaviour by consulting a broad range of people who support Indigenous groups may have merit. Support workers are often exposed to the socio-political aspects of Indigenous health, as well as Indigenous people accessing community (i.e., health, education, or housing) services
and as such are in an opportune position to provide a unique perspective on the situation under investigation (Liamputtong, 2007). They may also observe Indigenous community members attempting to moderate their health behaviours (Wood et al., 2008). Wood et al. (2008) interviewed health workers during their investigation exploring the reasons why Aboriginal women continue to smoke during pregnancy. They included health workers because these support people were able to observe Aboriginal women during their pregnancy; at stage of when many people quit smoking. As a group, support workers can provide a useful perspective of Indigenous health across each of the main socio-ecological levels (Priest et al., 2012). For instance, Priest et al. (2012) consulted 25 carers of Aboriginal children when using the social ecological model to examine Aboriginal child health and wellbeing. In light of prior research, the current qualitative study was designed to better understand the factors influencing health behaviour within Indigenous groups in Western Australia by mapping the emergent themes from discussions with people who support Indigenous groups into the social ecological model.

Method

Methodology

The methodology was guided by previous Indigenous research (Barnes, 2010a; Liamputtong, 2007; Priest et al., 2012; Wood et al., 2008) and by an advisory group comprised of 14 people, including Western Australian academics and others involved in Indigenous health. The National Health and Medical Research Council (NHMRC) guidelines for ethical conduct of Indigenous research were adhered to throughout the planning, implementation, and analysis stages of this research. In accordance with these
principles, the research team liaised with Indigenous health organisations within the State. Consequently, the research was designed to: respect the privacy and integrity of those who were involved in the interviews and the groups they supported; uphold the responsibility to convey the participants’ opinions accurately; aid reciprocity by providing an opportunity for people to share opinions with others in a non-judgemental setting; and ensure an open invitation to be involved in the research in order to promote inclusivity and equality.

Recruitment

In an attempt to obtain a geographically diverse sample, the recruitment process included four aspects: (1) advertising the study on a website; (2) placing a recruitment booth at a health conference; (3) approaching relevant individuals; and (4) employing snowball recruitment techniques (as per Streeton, Cooke, & Campbell, 2004). Potential participants were screened to ensure they had close relationships with the Indigenous people they supported; details of the screening process are outlined below.

Sample

In-depth interviews were conducted with 29 people (13 males and 16 females) who support Indigenous groups, and whose ages ranged from mid-twenties to late fifties. The support people involved were experts within their fields, which included education, community development, health promotion, counselling, community management, and health. The participants also had extensive experience (from four to 20 years) working within Indigenous communities. The majority of the support people had lived within the community they worked with for several years, enabling them to build strong relationships with community members. A few of them were in transitory roles, making
regular trips to the community for a few weeks at a time. All the Indigenous support people lived and worked within their own communities, and had done so for many years. All participants held current positions where they were employed to provide support to Indigenous community members. Seven participants were involved with metropolitan groups, six were involved with regional groups, six with remote groups, and 10 were involved with a combination of geographical localities. This reflected the distribution of the Indigenous population within the State, where 40% of the Indigenous people live in remote/very remote locations, 37% live in urban settings, and 13% live in regional locations (Australian Bureau of Statistics, 2011). All participants had strong networks within the communities they supported. These networks included both Indigenous and non-Indigenous people, and in most cases the networks comprised formal and informal relationships. This breadth of knowledge and experience meant the participants were able to provide insights from a unique perspective. In order to examine possible perceptual differences between Indigenous and non-Indigenous support people, a similar distribution of both groups (Indigenous, n = 13; non-Indigenous, n = 16) was included in the sample.

**Procedure**

Ethics approval for this research was obtained from the Western Australian Aboriginal Health Ethics Committee and The University of Western Australia Human Research Ethics Committee. All participants provided their informed written consent to take part in the study prior to the commencement of data collection. Interviews took approximately one hour and were conducted at venues convenient to the participants. The interviews involved open-ended questions from a semi-structured interview guide designed to encourage the respondents to discuss their thoughts regarding factors that
influence Indigenous health behaviour. In order to build rapport, the questioning began by asking the participants about their background. This was followed by a discussion centred upon the key issues affecting the people they interact with and how these issues affect their health behaviour. The questioning was iterative, allowing participants to expand on areas they felt were most important. During the data collection, the lead researcher also made field notes.

**Analysis**

All the interviews were audio recorded and transcribed verbatim. Transcripts were uploaded into NVivo10 (QSR International Pty Ltd., Melbourne, Australia). The analysis was conducted using an empathetic understanding, which has been identified as contributing to the trustworthiness of analysis (Maykut & Morehouse, 1994). The data were analysed thematically via deductive and inductive processes (Creswell, 2007; Maykut & Morehouse, 1994) while using a constant comparison process to ensure analytical rigour (Strauss & Corbin, 1990). The initial coding schema was developed using concepts from the social ecological model (as per Lynch, 2000). The coding schema was updated regularly to incorporate emergent themes (as per Maykut & Morehouse, 1994) and, when necessary, previously coded data were recoded to these new themes (as per Strauss & Corbin, 1990). The data were also subjected to thematic analysis using matrix searches (Schutt, 2012). The interpretations were compared with the lead researcher’s notes as a means of triangulation. These notes were also an avenue of reflection regarding possible bias; the notes and the subsequent reflexive process contributed to methodological and interpretive rigour (as per Silverman, 2013). The potential for misinterpreting the data was minimised by an iterative, constant comparison method, combined with member checking and advice from the advisory
group and a forum of experts, who were experienced professionals within health promotion (as per Glaser & Strauss 1967; Creswell 2007).

**Results**

The focus of the discussions was not limited to one type of health behaviour; the participants mentioned a range of health behaviours throughout the discussions. These included smoking, alcohol consumption, physical activity, and dietary habits. The themes identified in this study were analysed and categorised within a social ecological framework. Figure 1 provides a concept map of the findings presented in this format. Broader social factors relating to culture, history, racism, and socio-economic circumstances were thought to influence health behaviour. Social connections with a variety of Indigenous people including family, other Indigenous community members, and non-Indigenous people (including health professionals) were also thought to influence health behaviour. In addition, personal circumstances and psychological factors were considered influential.
Figure 3 Factors influencing the health behaviour of Indigenous Australians in two urban West Australian communities
Study participants felt there were multiple factors that influenced the health behaviour of Indigenous people within the Western Australian communities they supported. The factors that emerged from conversations regarding remote, regional, and metropolitan Indigenous community members were the same. The similarity in factors identified at a variety of geographical locations may indicate these factors transcend other geographical concerns because of the magnitude of their effect upon the circumstances. The findings are presented under emergent themes that were identified during the data collection episodes.

The perceived influence of socio-cultural factors on health behaviour

Culture

Culture was identified as fundamental to an Indigenous outlook on life, and therefore, substantially influenced health behaviour and factors that affect health behaviour. In particular, the cultural importance of connections within an extended family network, or kinship group, was emphasised as influential on health behaviour.

*It’s kinship. It’s sharing. They put their families first; it’s cultural.* (P15: Indigenous male, metro)

There was a very strong cultural obligation towards family, which includes providing support for family members. It was considered a cultural expectation to provide family (kin) with food, accommodation, or money, regardless of one’s own circumstances. Many participants commented that this cultural obligation to family impacted upon health behaviour. This occurred because they were often supporting a large network of people (as a result of the kinship system), thereby placing psychological and physical demands upon individual resources.
A lot of obligation to their family...aunty or grandma or a child and his or her partner and their kids and whoever else is transient at that time that’s come to stay. (P4: Indigenous male, remote)

The family arrive or someone comes to stay and you’re obligated to feed them, you can just go and get fish and chips or some other fast food; it’s easy and cheap. (P3: non-Indigenous male, regional/remote)

Getting a job and earning money that goes into the individual’s bank account but it’s not really their money. They’ve got to share it out with whomever, if there’s some sort of relationship. (P17: Indigenous female, metro/regional)

Indigenous people won’t cook two different meals, you know; if someone in the family is a diabetic… they’ll eat whatever’s going. (P18: Indigenous female, regional)

Participants mentioned that the Indigenous people they supported generally had a sociable, sharing lifestyle. In the context of economic hardship, the desire to share and be sociable encouraged acts such as sharing cigarettes, which were relatively cheap in comparison to cost of a meal, and could be shared without too much financial outlay. Participants also noted that smoking together produced a sense of camaraderie amongst the Indigenous people. These aspects reflect the influence of the Indigenous cultural perspective regarding sharing and being social:

Quite often when you haven’t got a lot to offer other people or to share with other people, cigarettes are quite a big thing to be able to share with family or friends when they come and talk with you. So it’s almost like a cultural thing that we’re up against as well, that it’s not just a health behaviour issue. (P24: non-Indigenous male, regional/remote)
Interactions with family and the kinship network were considered to have substantial influence upon individuals’ health behaviour. Respected individuals and elders acted as role models within the community, providing examples of and support for healthy behaviour. Conversely, it was observed that family and friends exerted pressure that led to unhealthy behaviours:

*Old ladies, old men and elders, they’ve got great influence [on others health behaviour].* (P9: Indigenous male, regional)

*Peer pressure especially for the young guys. This influences people to do things they may not want to do, such as drinking alcohol. It’s happened to me.* (P4: Indigenous male, remote)

In light of the substantial obligations to family and community and their impact upon individuals’ attitudes and resources, the participants thought that it may be difficult for a single individual to change their health behaviour without the wider community implementing similar changes. One participant referred to this via the following analogy:

*Well, you put a whole lot of crabs in a bucket and one of them starts to claw its way out to the big outside world. The ones down below grab a hold of that one, and instead of them all climbing out, the first one gets dragged back in. They’re always trying to get there, but they get dragged back in. It’s a simple analogy, but it does fit their circumstances.* (P24: non-Indigenous male, regional/remote)

*Cultural preservation*

Cultural identity had a unifying affect that led to an expectation to conform. In light of this, Indigenous people were sometimes criticised by others from their community, as a
result of participating in lifestyle choices that were considered culturally inappropriate or non-Indigenous:

\[\text{If an Aboriginal person is doing really well, and they’ve got their own home and a car and a settled life, then they say [Indigenous people] you become less Aboriginal. (P20: Indigenous female, regional)}\]

Such comments reflect the tension that is created by attempting to accommodate two contradictory motivational drivers: (1) the desire for cultural identity and inclusivity; and (2) the influence generated from a source outside their cultural perspective.

There was a reluctance to conform to anything that was perceived as not culturally appropriate or that diminished one’s cultural identity. This influenced health behaviour, promoting behaviours that were considered culturally appropriate and, conversely, discouraging behaviours that were considered culturally inappropriate:

\[\text{When she was offered the choice between a white roll and a wholemeal one, she took the white one, pointing to the wholemeal one and saying “I don’t want that, that’s white fella food”. (P29: non-Indigenous female, metro)}\]

Support workers also mentioned that loss of identity, disempowerment, and a sense of hopelessness that was associated with the struggle to maintain their cultural identity encouraged Indigenous people to engage in unhealthy coping mechanisms.

\[\text{I think there’s a real lack of [cultural] identity, low self-esteem, and lack of the future. (P6: non-Indigenous female, Metro)}\]

\[\text{[Indigenous] people are so disempowered that they don’t even connect, “OK I can do that, I can make this [health behaviour] better”. (P8: Indigenous female, all regions)}\]
The psychological influence of history and racism on social relationships on health behaviour

According to many participants, the traumatic history experienced by Indigenous Western Australians involving colonisation and oppression continued to have a psychological and physical impact upon them. The psychological affect caused by hearing the history and seeing the places where events occurred perpetuated the impact of the past. This was thought to produce psychological distress that impeded consideration of appropriate health behaviour; created psychological barriers between the Indigenous and non-Indigenous people; and increased the necessity for coping strategies.

_We were considered animals until they gave us the vote in ’67 We were treated badly - I still pass the place where they massacred my family. People find that sort of thing hard to forget._ (P27: Indigenous male, regional)

Numerous references were made to continued racism towards Indigenous people within Western Australia. The constant presence of systematic racism, on a systemic, as well as interpersonal level, was believed to influence decisions regarding health behaviour. Racism was sometimes a barrier to accessing healthy choices or health education. In addition, exposure to suspicion produced psychological distress and avoidance behaviour.

_It doesn’t matter, a train station, just any shop you go into, if you’re black you get watched, it’s as simple as that. It’s horrible._ (P21: Indigenous female, metro)

_The nurse made a comment about not trusting them [an Indigenous family] while they stood next to the bed and could easily hear what she was saying. I could tell this upset them and made them wary of the nurse_ (P22: non-Indigenous female, metro)
They get excluded from information regarding health behaviour because of discrimination. (P1: non-Indigenous, all regions)

On occasion, unhealthy options were made very accessible, in an attempt to convince community members to leave premises.

The way to control things was they would give the Aboriginals free take-away food as long as they went away and ate it. (P7: non-Indigenous female, regional)

In addition, health risk behaviours, such as smoking and consumption of alcohol and foods high in carbohydrates and fats, were introduced into the normative patterns of individuals and families.

She said, “All these dependencies have been put on us. And then it’s monkey see, monkey do. My mother didn’t get money when she was working. She used to get flour, sugar, tobacco.” (P10: Indigenous female, remote)

The perceived influence of socio-economic circumstances on health behaviour

Socio-economic circumstances including economic hardship and unemployment diminished the financial resources available to fund health needs. It was felt that these financially challenging circumstances were also psychologically distressing, which compounded their influence on health behaviour. The outcomes of these circumstances were perceived to be overwhelming and prevented health behaviour from being prioritized. Overcrowded and inadequate housing were identified as common barriers to positive health behaviour. Living in overcrowded accommodation was thought to compromise many aspects of health behaviour, including nutrition:
You’ve got 10 people living in your house and we’re saying now you know you really need to eat some healthy tucker. (P2: non-Indigenous female, regional/remote)

The psychological distress created by economic hardship reduced the capacity to focus upon health behaviour and increased the propensity to engage in unhealthy coping mechanisms such as smoking and alcohol abuse.

It’s a really big thing with health behaviour because of the overcrowding in houses. I mean I know of a family where there are about 12 of them in a two bedroom unit. (P26: Indigenous female, regional)

You want to come back home and see where they live. God, I’d be drinking, every day too. (P20: Indigenous female, regional)

It was acknowledged that engaging in health risk behaviours had a detrimental effect on Indigenous health outcomes. However, there was speculation that these behaviours were partially in response to the psychological distress caused by their circumstances. This is true, especially with respect to the use of smoking and drinking alcohol, which were used as coping mechanisms and boredom relief.

The stress of all those social issues, the overcrowding in housing, unemployment, suicide, drug and alcohol consumption, all those sorts of things, means sometimes smoking is a comfort to people and their only means of actually having something. (P3: non-Indigenous male, regional/remote)

The perceived influence of social connections with people from outside the family/kinship group on health behaviour

It was often mentioned that interactions between Indigenous people and non-Indigenous representatives from organisations, especially health-related organisations, had the potential to positively influence health behaviour. These interactions provided practical
support, encouragement, and information that promoted healthy behaviours. However, miscommunication was thought to reduce the positive influence that could be gained from these sources. The history surrounding cross-cultural interactions meant that Indigenous people may be wary of representatives of non-Indigenous organisations. This situation was exacerbated by people distrusting non-Indigenous representatives who were not familiar to them. It was also explained that people felt that organisations were not listening to them or criticised them, which produced a barrier to productive communication.

_They are often wary of white fellas and if they don’t know them they don’t really trust them. It’s understandable, given the history and the bad treatment that continues._ (P8: non-Indigenous female, all regions)

_They’re not going to start trusting a government organisation, when they’ve lost trust in them because of historical events. So they’re going to be less likely to listen to a [health] message if it comes from the government, than if it comes from Aboriginal people._ (P9: Indigenous male, regional)

_We’d spent literally months on these being culturally appropriate and sensitive pamphlets with images of Aboriginal people and terminology, same sort of thing. “Hey you mob, get deadly” [In an Indigenous context this colloquialism implies enthusiasm, encouragement or appreciation], and they were of no interest to these people whatsoever._ (P2: non-Indigenous female, regional/remote)

Several participants’ comments indicated that people within the communities they supported resented being told how to live their lives or being criticised for not living in a certain manner. This resentment appeared to stem from the controlling or paternalistic sentiment that was related to being told how to live one’s life. Such comments highlight
the challenges involved in providing health behaviour guidance in a manner that will engage community members and not exacerbate or reflect historical marginalisation:

*A lot of Aboriginal people are sick of being told how to live their lives and being criticised for how they live their lives and they want to hold onto the things that are important to them.* (P14: non-Indigenous female, metro)

**Discussion**

This study explored Indigenous health behaviour in Western Australia from the perspective of support workers; some of whom were Indigenous. The results reveal the complex relationship between social relationships and the broader Indigenous and non-Indigenous cultures and their impact on individual health behaviours. The results show that the participants in this study considered that the health behaviours of the Indigenous people they supported were extensively influenced by factors beyond the control of the individual. Culture, social networks, history, racism, socioeconomic disadvantage, and the psychological distress associated with some of these factors were thought to affect the health behaviour of the Indigenous community members supported by the participants involved in this study.

It was apparent that these factors were often interrelated and, therefore, affect health behaviours in a complex manner that is not easily described. For example, inadequate housing leading to overcrowding may detract from an individual’s ability to enact positive health behaviours. However, the social and emotional wellbeing involved in interacting with other Indigenous people may negate or in some cases confound the effect of the overcrowding and have positive effects on health behaviour. Further, the intimate social connections that occur in such situations may have positive effects on
psychological factors such as self-esteem, which can have a positive on influence health behaviour.

Support workers’ accounts of the challenges of changing health behaviour focused on the importance of socio-cultural factors. This was primarily facilitated by the emphasis that was placed on social connections/networks by the culture. The culture reinforced social connections in a manner that promoted group conformity and group expectations. This led to a complex interaction between socio-cultural factors and health behaviour. Consequently, it appeared Indigenous people were more likely to listen to advice which was provided by their relatives or other Indigenous people. Such reliance on advice from familiar sources is common in situations where cultures live together but have different socio-cultural traditions (Abubakar et al., 2013; Pell, Straus, Andrew, Menaça, & Pool, 2011). Moreover, the importance of relationships with family and kin, and the associated obligation to these relationships, significantly influenced health behaviour. In light of economic circumstances, one aspect that appeared to be particularly important was the cultural obligation to share resources with family members. Interviewees felt that this issue resulted in diminished resources available for maintaining personal health behaviour. Johnston and Thomas (2008) noted that such cultural obligations add another layer of complexity to social dynamics that is not experienced by non-Indigenous groups. Passey et al. (2011) also noted the importance of cultural identity (Aboriginal identity) in social network formation, and the role social networks play in perpetuating smoking behaviour. Similar to this, the current study highlights that in some instances, the desire (or perhaps obligation) to share that arises from, and reinforces, cultural identity may reduce the opportunity and inclination to make health behaviour adjustments, which are necessary for specific health issues, such
as diabetes. This cultural focus on family and kin altered the priority of personal needs and the motivational influence derived from identity, self-esteem, and empowerment.

According to support workers, the importance of maintaining cultural distinctiveness impacted on the health behaviour of Indigenous people. Moreover, the continual experience of racism and discrimination may polarise Indigenous people towards their own culture, in a manner similar to that theorised in social identity theories such as in-group (us)/out-group (them) theory (Brewer, 1979). This theory states that people may develop strong links with a group they identify with and, conversely, can develop prejudice against opposing groups (Brewer, 1979; Myers, 2007). This may indicate that racism and discrimination have a confounding effect on cultural identity. In light of this, the necessity to maintain cultural distinctiveness may outweigh caution regarding the negative consequences of health risk behaviour. In their review of social theories, Dixon and Banwell’s (2009) supports the notion that health risk behaviour is sometimes perpetuated in disadvantaged groups by the need to maintain distinctiveness from other groups. In a similar manner, a study involving Indigenous Australians from four rural communities within New South Wales indicated the necessity for cultural distinction may influence smoking behaviour (Passey et al., 2011). Brough et al. (2006) also suggested that cultural identity and cultural distinctiveness have important psychological protective qualities in the face of marginalisation and racism.

The importance of cultural distinction may promote resistance to embracing health behaviours that are perceived as being aligned to another culture. A social resistance framework has been devised in an attempt to explain such resistance within non-dominant minority groups (Factor, Williams, & Kawachi, 2013; Scott, 1990). In this
context, engaging in health risk behaviours could be explained as everyday acts of resistance against the ideations and concepts of the dominant group (Scott, 1990). This framework also explains minority group members’ criticism towards embracing attitudes and beliefs of the dominant group (Factor, Kawachi, & Williams, 2011; Fordham & Ogbu, 1986; Scott, 1990). Factor et al. (2011; 2013) used this framework to provide insight into health risk behaviour within the African American minority group in the United States. Given the sentiment expressed in the current study’s discussion, if positive health behaviours were perceived to be part of the non-Indigenous culture this may create a barrier to those behaviours.

The separation between Indigenous and non-Indigenous social connection/networks that appears to be fostered by marginalisation and racism may influence the effect of social networks. Support workers’ comments indicated that social connections with non-Indigenous people may be hindered by the maintenance of cultural distinctiveness, an oppressive history, and racism. This supports suggestions that marginalisation and racism impact upon social networks to diminish the availability of non-Indigenous connections (Brough et al., 2006; Passey et al., 2011; Reilly, Doyle, Bretherton, & Rowley, 2008). Acceptance of health behaviour information that is derived from non-Indigenous sources or depicted from a non-Indigenous perspective may be diminished by the influence of marginalisation, racism, and desire for cultural distinctiveness.

Communication between Indigenous people and non-Indigenous people may also be disrupted by the sense of wariness or distrust some Indigenous people feel towards non-Indigenous people. The participants in the current study noted that distressing historical encounters and present day racism lead to an inclination by Indigenous people to
distrust non-Indigenous people. Moreover, Indigenous participants’ comments indicated that the emotional distress and sorrow associated with tragic historical events, such as family massacres, impacted greatly upon Indigenous people. The detrimental impact of racism and historical events has been noted in previous studies that indicate such encounters have been psychologically distressing for Indigenous Australians (Cunningham & Paradies, 2012; Larson, Gillies, Howard, & Coffin, 2007). Bond et al. (2012) noted that cognitive disparity may arise in response to advice regarding healthy living when provided by state institutions that were instrumental in the oppressive colonisation of Indigenous people.

Communication has a relational component that can be disrupted by distrust (Gilson, 2003). Gilson (2003) suggested that trust is affected by past encounters, either between people or people and organisations. Within an Australian Indigenous context, cultural emphasis on relationships and connections indicates that the importance of this relational aspect of communication may be heightened. Therefore, the trustworthiness of the messenger is a very important part of validating the information they convey. When the messenger is a stranger, trust stems from the reputation of the organisation they represent, or the credibility of known associates (Gilson, 2003). In light of this, preconceived distrust may have the potential to diminish the effect of communication from non-Indigenous sources. The findings in this study suggest that distrust may create a communication barrier with regards to promoting health behaviour to Indigenous Australians.

It was posited that it may be difficult for individuals to change their health behaviour without the wider community implementing similar changes. Research into the factors
influencing health promotion within Samoan communities emphasised the conundrum that is caused when health is considered from an individually oriented perspective and from a culturally oriented social wellbeing perspective (Hardin, 2015). They concluded that this resulted in changes in health behaviour being suspended until cultural change occurs; thereby inadvertently placing the responsibility for improving health back on the cultural leadership. The notion that the normative behaviour of a group (for instance, a cultural group) will influence the individuals within the group is commonly acknowledged (Christakis & Fowler, 2008). Such influence can encourage and spread behavioural change through the group’s social networks (Ajzen, 1991; Christakis & Fowler, 2008). However, in instances where there is discrimination or oppression, the expectation for cultural leadership to champion health change may inadvertently exacerbate inequities. For instance, Hardin (2015) suggested that when culture is acknowledged as the most important obstacle to changing health behaviour, health practitioners inadvertently reproduce structural inequalities in their encounters with clients.

**Limitations**

Due to the qualitative nature of the study, the findings cannot be generalised beyond the study sample. However the credibility and validity of the themes was substantiated by the methodological and interpretive rigour employed throughout the study (as per Richmond & Ross, 2008; Silverman, 2013). The use of the social ecological model may have limited the scope of the findings. This model facilitated a broad (macro) inspection of the data, which may have detracted from examining smaller differences in the data. However, in using this model the findings highlight factors that transcend the heterogeneity within Indigenous groups.
**Conclusion**

The current study highlights the complexities and challenges created by the intersection of (in broad terms) two cultures (Indigenous and non-Indigenous cultures). This dynamic is confounded by the oppressive history combined with racism that persists into contemporary circumstances, and the associated marginalisation. In addition to marginalisation, the desire for cultural distinctiveness and the influences of cultural perspectives further confounds and exacerbates the dynamics caused by other enablers and barriers, such as social connections and social support. In particular, the data suggests that distrust created by historical and contemporary racism may impede any health and broader assistance that might be gained from non-Indigenous sources. Conversely, it also highlights the conundrum involved in promoting health behaviour without reinforcing oppression or inequalities.
Chapter 5

Factors Affecting Indigenous West Australians’ Health Behaviour: Indigenous Perspectives

This chapter presents factors that influence Indigenous Australian’s health behaviour from the perspective of Indigenous people living in two West Australian communities. A co-authored version of this is under review as: Waterworth, P., Dimmock, J., Pescud, M., Braham, R., and Rosenberg, M. ‘Factors affecting Indigenous West Australians’ health behaviour: Indigenous perspectives’. Qualitative Health Research, 1-14 Doi 10.1177/1049732315580301. The paper is presented in Appendix Q.

Introduction

It is well established that Indigenous Australians suffer poorer health outcomes than their non-Indigenous peers (ABS, 2012c; Australian Institute of Health and Welfare, 2012). This is reflected in their shorter life expectancy (10.6 years less for men and 9.5 years less for women) in comparison with non-Indigenous Australians (ABS, 2011e). Indigenous Australians’ health and wellbeing is more likely to be disrupted by chronic diseases such as diabetes, renal disorders, and cardiovascular disease in comparison with their non-Indigenous counterparts (ABS, 2011e; Vos et al., 2009). They are also more likely to experience higher levels of psychological distress, which has been associated with chronic health conditions (Cunningham & Paradies, 2012). In part, the disparities in health outcomes between Indigenous and non-Indigenous Australians may be attributed to the higher incidence of key health risk behaviours in the Indigenous population (AIHW, 2011b; Booth & Carroll, 2005; Calabria et al., 2010). These key behavioural risk factors include smoking, poor nutrition, misuse of alcohol and other
drugs, and inadequate physical activity (AIHW, 2012; Booth & Carroll, 2005).

Despite their connection to health outcomes, the factors that influence the health risk behaviour of Indigenous Australians are poorly understood (Carson et al., 2007). Studies suggest that colonisation and the resulting introduction of behaviours, such as smoking promote engagement in some behaviours (Passey et al., 2011; Wood et al., 2008). The social consequences of colonisation have also influence behavioural choices of Indigenous Australians (Alford & Muir, 2004; Hunter, 1993). The contemporary socio-economic circumstances of many Indigenous Australians, and stress associated with this and other aspects of daily life, may exacerbate health risk behaviour (Briggs et al., 2003; Wood et al., 2008). In light of the cultural emphasis on relationships it has been identified that social networks may promote health risk behaviours such as smoking (Johnston & Thomas, 2008; Passey et al., 2011).

The continued disparity in health outcomes between Indigenous and non-Indigenous Australians indicates there may be factors influencing their health behaviour that have yet to be identified and explicated. Greater emphasis on the Indigenous definition of health, which is multi-dimensional and holistic, is crucial for gaining further understanding of this complex issue (Lock, 2007; National Aboriginal Health Strategy Working Party, 1989; Priest, Mackean, Davis, Briggs, et al., 2012). This involves seeking information directly from Indigenous people (Lock, 2007), and conducting research in collaboration with Indigenous groups (NHMRC, 2002; Priest, Mackean, Davis, Briggs, et al., 2012). Priest et al. have called for ongoing exploration of Indigenous perspectives of health and wellbeing spanning a range of populations across a variety of geographical locations. It has been suggested that a participatory action research (PAR) methodology and a grounded theory approach (as per Andronikidis &
Lambrianidou, 2010; Bush, White, Kai, Rankin, & Bhopal, 2003; Roddy, Antoniak, Britton, Molyneux, & Lewis, 2006) to explore Indigenous perspectives of the factors that impact health could assist in identifying issues that may not be revealed by deductive investigation.

PAR methodology and grounded theory complement one another. PAR encourages participants to become actively involved in the research process (Lingard, Albert, & Levinson, 2008; Teram, Schachter, & Stalker, 2005). Subsequently, this supports the grounded theory approach by providing greater conceptual diversity during the inductive analysis (Bush et al., 2003). In addition, PAR’s collaborative approach empowers participants by affording them opportunities to advise and assist during the research process (Liamputtong, 2010). This approach shifts the balance of power from researcher to participants, which is considered essential for research into Indigenous Australians (Fals-Borda, 2005; Kendall et al., 2011; National Health and Medical Research Council, 2002, 2003), thereby diminishing the likelihood that research will exacerbate the detrimental circumstances encountered by vulnerable and marginalised groups (Liamputtong, 2007).

The present study focused on exploring Indigenous participants’ perspectives of the factors that affect the health behaviour of their community members. In recognition of the circumstances surrounding this population, the study used a combination of PAR methodology and a grounded theory approach. Members of two Western Australian Indigenous urban communities, one regional and one metropolitan, were involved, to enable comparison of the factors that were identified within the different geographic locations.
Method

Methodology
The research was conducted using PAR methodology (as per van der Velde, Williamson, & Ogilvie, 2009), in conjunction with a constructivist grounded theory approach (Charmaz, 2000; Schwandt, 2000). The PAR methodological approach used within the research included collaboration and consultation with the communities involved in the study. These community members and the participants were considered co-researchers, and a number of community members became involved in the whole research process, as research assistants or members of advisory committees that guided each step of the process, while others were involved in discrete portions of the process. All participants were actively involved in directing the focus of the discussions held during meetings and providing advice and insight into the emergent themes that arose from the discussions. This entailed multiple visits to the community with time spent talking to community members, reflecting on the process, and listening to feedback before reinforcing the findings. This meant there was considerable reflection on the information provided before the concepts were developed. This approach transferred the control of the research to the community members and, in doing so, empowered them. Emancipation through actions and acquisition of knowledge is a key component of the PAR approach (Baum et al., 2006; Fals-Borda, 2005). Using a constructivist grounded theory approach allowed understanding to be developed mutually by the participants and researchers within the social, cultural, and historical context of the communities involved. This approach encouraged collaboration with and empowerment of participants, which is a key component of the PAR methodology.

The engagement with community members was conducted in a culturally appropriate format, in accordance with Australian National Health and Medical Research Council
principles (NMHRC, 2002, 2003). Prior to commencement of the research, the candidate (PW) consulted key community members, and gained written support from the elders (leaders) and organisations working within the communities (see Appendices E, F, G). Once support and advice were obtained, an advisory committee was convened within each community. These committees comprised elders and respected community members who provided advice and guidance throughout the study. They were actively involved in discussions concerning how to conduct the research and interpret the data, and conducting the focus groups. For example, the researchers collaborated with the committees to develop focus group questions and protocols. This included devising stimulus material to start participants thinking about the topic under investigation. Two members of each community were employed to assist with the research.

**Participants**

The study was conducted within two Western Australian Indigenous communities, one regional and one metropolitan. The Indigenous people living in these areas live dispersed among the non-Indigenous population. In total, 120 members of the two West Australian Indigenous communities participated in the study. For comparative purposes, demographic information for Indigenous, non-Indigenous, and the study sample is presented in Table 7.
Table 7 Sample and community demographic characteristics

<table>
<thead>
<tr>
<th></th>
<th>Metropolitan population</th>
<th>Regional population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Indigenous</td>
<td>Non-Indigenous</td>
</tr>
<tr>
<td>Average number of people in the household</td>
<td>2.9</td>
<td>2.6</td>
</tr>
<tr>
<td>Average children per family</td>
<td>2.6</td>
<td>1.7</td>
</tr>
<tr>
<td>Median weekly household income (AUD)</td>
<td>753</td>
<td>1606</td>
</tr>
<tr>
<td>Median weekly rent (AUD)</td>
<td>170</td>
<td>340</td>
</tr>
<tr>
<td>Median monthly mortgage (AUD)</td>
<td>3467</td>
<td>2200</td>
</tr>
<tr>
<td>Not in the labour force (%)</td>
<td>35</td>
<td>10</td>
</tr>
<tr>
<td>Proportion of population by age and gender (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;15 yrs</td>
<td>33.6</td>
<td>13.4</td>
</tr>
<tr>
<td>15-24 yrs</td>
<td>22.4</td>
<td>17.1</td>
</tr>
<tr>
<td>25 – 54 yrs</td>
<td>33.9</td>
<td>42.6</td>
</tr>
<tr>
<td>54&gt;</td>
<td>9.9</td>
<td>26.9</td>
</tr>
<tr>
<td>Proportion of females in the population (%)</td>
<td>47</td>
<td>51</td>
</tr>
</tbody>
</table>

Source of data: Australian Bureau of Statistics (2011 a, b)

The ABS statistics include suburbs that were not represented in the study.

In light of the differences in distribution of the populations, ABS recommends caution when comparing Indigenous and non-Indigenous statistics.
Recruitment

In keeping with the PAR methodology and culturally appropriate engagement, the recruitment process was guided by the advisory committees and conducted by the community research assistants. This process began with the committee members providing a list of community members who they felt should be approached regarding participation in the study. The invitation to participate was disseminated through the community via a snowball method (Streeton et al., 2004), where those invited were asked to pass the invitation on to others. To further ensure inclusivity, flyers that explained the study and invited participation were distributed within the community. The advisory committees guided the development of the flyers and their distribution. Under guidance from the advisory committees, the community research assistants recruited participants by personally approaching members of the community. They explained the parameters of the study and stated that participants would receive AU $30 (US $23) to compensate them for time and travel costs.

Procedure

The data collection involved 11 focus groups, conducted with Western Australia; 6 from the metropolitan centre and 5 in a regional town. On average, 8 to 10 people in each focus group. However, 1 focus group had 32 participants due to the cultural nuances surrounding in the recruitment of Indigenous community members whereby it is common for all adult family members to attend such events. The sessions were conducted by a non-Indigenous researcher in conjunction with the community research assistants and elders from the advisory committees. The discussions were semi-structured, being directed by broad questions (see Appendix O). Examples of questions posed to the participants included ‘What does being healthy mean to you?’ and ‘What prevents you from being healthy?’ Health-related images were used as prompts during
the sessions; examples of these included caricatures of people participating in healthy and unhealthy behaviours.

The sessions involved yarning, which produced a free-flowing discussion that was primarily controlled by the participants (as per Bessarab & Ng’andu, 2010). Yarning is an Indigenous Australian traditional style of conversation that involves sharing stories, and therefore may illuminate knowledge that might be missed when using more structured techniques (Bessarab & Ng’andu, 2010; Walker, Fredericks, Mills, & Anderson, 2014). The combination of procedures produced a wide and varied discussion. This enabled conversations relating to factors that influence health to emerge naturally, thereby ensuring that the information conveyed represented the salience of the issues to the participants rather than reflecting the assumptions of the researcher (as per Glaser & Strauss, 1967).

The lead researcher also made filed notes (as per Silverman, 2013). Demographic information was collected via a short survey that was administered to participants prior to commencement of the focus groups. Each focus group session took approximately 1 hour and was conducted at a public venue convenient and familiar to the participants. A local community centre frequented by the members was used as a research base in the metropolitan community. The research was conducted using a local football club’s rooms and an Aboriginal corporation’s meeting room as the venues in the regional community. The study protocol was approved by the West Australian Aboriginal Health Ethics Committee and a University Human Research Ethics Committee (see Appendices H, I).
Analysis

All focus groups were digitally recorded and transcribed verbatim. The transcripts were imported into NVivo 10 software, ensuring that the data from each location were stored and analysed independently. The analysis began with the lead researcher repeatedly reading and re-reading the transcripts in order to immerse herself in the meaning of the content and to produce an empathetic understanding (as per Liamputtong, 2010; Maykut & Morehouse, 1994). This empathetic stance has been identified as contributing to the trustworthiness of analysis (Maykut & Morehouse, 1994). In conjunction, thematic analysis was conducted using a grounded theory approach, as described by Glaser and Strauss (1967). This approach enabled a thematic analysis without the necessity to discover a core category and its associated properties (as per Pettigrew & Roberts, 2011). Coding and analysis were conducted using inductive procedures (as per Braun & Clarke, 2006; Glaser & Strauss, 1967). To enable the creation of a theory best fitted to the data, constant comparison was utilised. This method is appropriate when using a grounded approach (Bazely, 2007). Conceptual constructs were generated by a process of exhaustive textual analysis whereby line-by-line coding was used to assist with identification of key concepts (Corbin & Strauss, 2008). Inductive nodes were introduced throughout the coding process to incorporate the emergent concepts (Corbin & Strauss, 2008; B. Glaser & A. Strauss, 1967) and, when necessary, previously coded data were recoded to incorporate emergent themes. Further, all new data were compared with the emerging interpretations (Glaser & Strauss, 1967), which were compared with the field notes as a means of triangulation. The lead researcher’s diary notes were also an avenue of reflection regarding possible bias; the notes and subsequent reflexive process contributed to methodological and interpretive rigour (as per Silverman, 2013). An understanding of theoretical sensitivity underpinned the research teams’ ability to
create a theory from the data by incorporating knowledge of relevant literature and theories with themes emerging from the data. Personal and work-related experiences also influenced the interpretation of data and subsequent development of theory (Glaser & Strauss 1967). The advisory committees were actively involved in the discussions regarding the themes that emerged.

The PAR methodology enabled the candidate, a non-Indigenous woman raised in New Zealand, to maintain a culturally appropriate stance throughout the research. Triangulation between members of the research team was also used, providing opportunity to examine different perspectives (as per Creswell & Miller, 2000). Member checking and consultation with the advisory committee and the wider community provided clarification of the themes and their respective importance, and acted as a form of analytical triangulation (as per Glaser & Strauss, 1967; Lincoln & Guba, 1985). Once it had been established that the themes were representative of the communities’ impressions, the themes from both locations were compared and contrasted.

**Findings**

Participants held a multi-dimensional and holistic perspective of health, with six broad themes recovering factors that influence health behaviour emerging during the discussions: culture, socio-economic opportunities, racism, social connections, communication, and personal psychological factors (Figure 4). The flexibility afforded by the PAR research methodology allowed the research to be guided by the participants and encouraged conversations on a diverse range of factors that the participants felt influenced the health behaviour of Indigenous Australians. There was substantial similarity between the themes that emerged within the discussions held in the
Figure 4 Factors influencing the health behaviour of Indigenous Australians in two urban West Australian communities

*Denotes the factors that the communities prioritise
communities. Further information regarding the most important themes (as identified by the participants), including supporting quotes, is outlined below.

**Culture**

Culture was considered an integral part of every aspect of Indigenous life. When discussing influences specifically relating to health, culture was a prominent factor; it was spoken about in a number of contexts including contemporary life, history and self-awareness. Many of the comments indicated a link between psychological wellbeing and culture, which in turn affects their physical wellbeing. Within these contexts several important components emerged: cultural identity, Indigenous language and the protective effect of their culture:

Facilitator: What influences your health behaviour?

It’s culture: It’s tradition; it’s identity; its being moorditj (Nyoongar word meaning strong), and knowing who you are; this is what is the most important when it comes to health things. (Group 2, regional)

Typically, when asked about influences on health, the conversations centred upon issues relating to cultural identity. From the discussions, it was clear that cultural identity was viewed as very important to Indigenous people and played a central role in personal identity and health. In some instances, participants seemed to use personal and cultural identity synonymously, indicating a crucial connection between the two. They indicated that having a strong cultural and personal identity enabled them to make healthy choices:

Aboriginal culture is a very strong part Nyoongar people’s identity and supports their health. (Group 2, regional)
Participants also made a clear distinction between their own culture and lifestyle, and that of non-Indigenous people. They perceived that Australian societal structures, including laws and policies, were based on non-Indigenous culture. This made policies and laws more appropriate for non-Indigenous people, which led to resentment over the cultural bias and the expectation that Indigenous people must adhere to them. The demarcation between Indigenous and non-Indigenous culture and society appeared to assist in perpetuating their Indigenous cultural identity. The challenge of living in two cultures and maintaining cultural integrity while embracing aspects of the non-Indigenous culture was often discussed. It was noted that differing opinions on how this should be resolved could lead to conflict and criticism:

They want to get us to live like White people live. They’ve got all these rules and regulations that go with it. It’s their [non-Indigenous] law and ways, it’s not ours. Aboriginal law and way of living is different. (Group 3, metro)

We socialised with whitefellas as well as our own race. Then we get criticised for socialising the whitefellas. (Group 1, regional)

Most participants considered the Indigenous language was a crucial component of their cultural identity and therefore of their health. Although most held this view, many of them only knew a few words of their language. The participants could not recall many people who spoke the language fluently. In light of the importance placed upon the language, the participants expressed regret that it was not commonly known or spoken. There was some resentment toward the historical restrictions that had been placed upon speaking the language and how this had caused the current loss. Many considered their language should be taught more comprehensively in schools and lamented that other languages seemed to take precedence over theirs, indicating that they felt culture and
language were marginalised:

My husband says we have lost our identity by not being taught the language. That’s a thing with the Aboriginal people, knowing where they come from, knowing who they are and their language. That’s all very important for their health. (Group 2, regional)

In the old days my grandfather was told not to speak the language. This is what the white people have done to us. No, you are not allowed. That is no more your language. (Group 1, regional)

According to participants, cultural practices conveyed a ‘protective effect’ to health, most especially physical health. It was noted that learning about their culture, traditional beliefs, and language enhanced their sense of identity, which promoted self-esteem and respect for themselves and others. This was emphasised by references regarding a connection between reduced participation in cultural ways and participation in unhealthy and socially inappropriate behaviour. Traditional practices such as eating bush tucker, drinking water and walking were considered a more healthy way of life. This was supported by references to older relatives not having the common diseases of contemporary people:

Culture and the old ways are slowly being lost. A lot of the young fellas today are drug addicts, thieves, in and out of jail or alcoholics because they don’t know the old ways. (Group 3, metro)

The damper, kangaroo meat, and rabbit we lived on were healthy and we were healthy. (Group 2, regional)
Many of our old people never had diabetes. Diets and that’s changed, yeah. We exercised a lot by walking everywhere. They also drank plenty of water. Then soft drinks and alcohol come in and we drink it with everybody else but our bodies can’t take it. (Group 2, metro)

**Socio-economic opportunities**

Circumstances related to the socio-economic situation of community members were often cited as compromising healthy living and healthy behaviour. This included unemployment, inadequate housing, impact of the justice system and incarceration, and unsuitable public facilities and programmes. These circumstances often had physical, emotional, and psychological ramifications. For example, unemployment limited financial resources, diminished self-esteem, and promoted health risk behaviour such as alcohol consumption:

No jobs, especially for Aboriginal kids. They go for a job and get knocked back. Then there is nothing else to do except join in the drinking. (Group 1, regional)

If we could have employment for everyone it would build everyone’s self-esteem, put money in their pockets and they wouldn’t have to rely on welfare. (Group 3, metro)

A lot of people, they don’t have a healthy house to live in. (Group 3, regional)

The importance of facilities catering specifically for Indigenous people was emphasised. Participants from the regional community acknowledged the importance of the organisations that catered solely for the needs of Indigenous people in their community (including an Aboriginal Medical Service). This theme was supported by members of the metropolitan community, who noted that lack of medical facilities dedicated to
Indigenous needs was detrimental to the health of their people. They mentioned that some Indigenous people felt uncomfortable seeking help from non-Indigenous medical professionals:

We have a really good Aboriginal Medical Services. We can go to them to get help. (Group 4, regional)

They’ve got a school there, which is positive. They teach Nyoongar kiddies the language, the history and stuff, so that gives them self-confidence to grow up, and deal with issues and take pride in themselves, which is good for their health. (Group 5, regional)

We haven’t got anything down here [Indigenous health facilities]. We need one somewhere close to us. (Group 5, metro)

Black fellas are too shamed to go in to a normal doctor, they [Australian government] need to get more health centres for Aboriginal people so they’re not so shamed to go in to the doctors and talk about their health issues. (Group 1, metro)

Many participants expressed the need for a facility, such as a community centre, where community members could meet together. They spoke of the necessity to have somewhere to teach their culture and traditional practices, including cooking, art, and language. Such a facility was considered essential to the physical and mental wellbeing of individuals by providing a place to meet others socially and to enable people to seek out therapeutic support from Indigenous people:

We need our own community centre so we can come have meetings and come together to chat and help each other. (Group 4, regional)
We need a centre where we can have a support group for Aboriginal women to sit and talk about our problems, like grieving if you’ve lost someone very close to you, there’s a lot of pain; to sit down and talk about that in our own centre would help. (Group 2, metro)

If we had our own Aboriginal centre things would be different, ’cause we can bring all our stuff to that centre; cook our food and learn our ways. (Group 6, metro)

**Racism**

Many participants thought that the effects of historical racism affected the physical and psychological health of community members. Australian Indigenous history that includes colonisation and attempts to assimilate Indigenous people into non-Indigenous society was considered to have a substantial impact on the outlook and behaviour of Indigenous people. There were numerous comments indicating that the knowledge of their traumatic history was prominent and influential. It appeared that the psychological burden of this was perpetuated by recounting these events. The impact of this was exacerbated by the connections between Indigenous people, which made the perceived distress more personal. It was expressed that this made it very difficult to move on from the past:

> Aboriginals’ pasts are a real burden that comes upon their shoulders because they grow up with those words in their ear - it’s disturbing. (Group 1, metro)

There was also resentment regarding the historical treatment and the current ramifications of it, such as loss of cultural practices and language. Many participants appeared frustrated by the manner in which Indigenous people were treated. Some considered the current Australian government to be responsible for the historical events.
In addition, many participants felt the government had not properly acknowledged or compensated them for their role in Indigenous history:

The government wanted to get Noongars off the reserves and out of the bush so they offered them the citizenship rights. You had to give up your family, your language; you had to be like a whitefella. And not only that they took the kids away. They grew up in missions—that’s colonialism, history, government, and racism. That was all there. In the early years the government tried to breed us out. All these things have an impact on our health. (Group 2, regional)

We weren’t considered to be people back in them days we was animals and flowers—flora and fauna. (Group 4, regional)

Why are other nationalities accepted and not Aboriginal people? Are we not good enough, but it was good enough for them to steal our land. So that’s the thank you they [Australian Government] give to the Aboriginal people. (Group 1, metro)

In addition, several health risk behaviours were introduced into Indigenous life by the colonising people. It was considered these behaviours had reduced the inclination for traditional behaviours, such as hunting for food:

The whitefellas put some pretty terrible things on us, gave us alcohol, sugar, tobacco for smoking. In the olden days we had our food from the bush. You had to go and get yourself, hunt for your food. Now, it’s easier to get fast food. (Group 5, metro)

Most participants felt racism was common in contemporary society and had a substantial affect upon their lives. This included racist comments and language, and discriminatory actions. Several participants noted they changed their social or
employment circumstances in light of being subjected to racism. Sometimes discriminatory acts prevented or discouraged Indigenous people from participating in healthy activities and obtaining health information. The racism was considered pervasive and, therefore, a barrier that prevented interactions and friendship between Indigenous and non-Indigenous people:

The kids have an issue at the skate park; they [non-Indigenous] don’t like us coming there. The other kids going there, they tell our kids they're not welcome (Group 5, regional)

Where I was working there was a lot of racism, people saying stuff and I couldn’t take it so I walked out. (Group 4, regional)

I go in the chemist and the security guards are watching. I go to the shop regularly, and they know I don’t steal but they follow me around because I’m Black. They paint us all with the same brush. (Group 1, metro)

**Social connections**

The extended family system or kinship connections were significant to many aspects of Indigenous life, including health. Participants expressed the cultural and personal importance of family connections and the loyalty that they felt toward family members, even distant ones. The kinship system developed strong ties with a large number of people, which meant there was the potential for many people to provide guidance and act as role models. The opportunity to obtain physical and psychological support was also increased by the extended family system. Conversely, the many strong connections meant there was potential for influence from relatives that encouraged people into unhealthy behaviours. The loyalty extended to family members meant they supported each other in many ways; it was noted that this sometimes instigated conflict, which
could be sustained over long periods and include many people:

It’s kinship, family members. That’s very important. I have a big family and we are all close. We support each other. (Group 4, regional)

With that family connection, the relatives take the responsibility off the young families by helping them. (Group 2, regional)

When one of the members of the family is sick, it doesn’t affect that one person but it affects the whole family. (Group 1, metro)

There’s a loyalty to family, which means you have an obligation to give financial help and support to kin regardless of how you feel about the situation. This can affect our health behaviour. (Group 4, regional)

Health risk behaviour was sometimes encouraged by social interactions, which sometimes involved peer pressure:

Peer pressure is big, being influenced into using drugs, alcohol, and smoking. It comes from family and friends. (Group 3, metro)

The boys will drink after work socialising and if you don’t join them in drinking, they give you a hard time. (Group 2, metro)

**Communication**

Effective communication was considered vital for informing and educating people about health. Participants preferred a personal approach where they spoke with someone they knew and trusted. They considered trust and respect essential for communication:
Clear communication is the key to everything. The difficulty is that it’s not clear because a lot of people chuck you a pamphlet [about health] that you can’t understand, rather than chatting with you. (Group 4, regional)

Participants expressed a lack of trust for government organisations and their representatives, which may prevent effective communication regarding healthy living. This led to misunderstandings regarding preventive and intervention initiatives from government sources. This reluctance to trust appeared to be based on historical encounters. Some references indicated this distrust extended to include non-Indigenous people generally. Several situations were discussed that emphasised participants’ tendency to relate contemporary occurrences to historical events. This appeared to promote doubt regarding the credibility and suitability of the practices of some government departments and, consequently, their staff. Conversely, many participants remarked that they would trust Indigenous people because of the connections they had with each other. Trust was established because of an existing relationship with each other or an associate that knew both parties. This would often include familial or kinship associations. It was constantly reiterated that the key to effective communication was trust, which is developed by knowing a person:

If you get a [health] message from the government, you’re just going back to history, stolen generation. Are you going to start trusting a government organisation, or the government, so to speak, when you’ve totally lost trust in them in the first place? It’s not going to happen. You’re going to be less likely to listen to it if it comes from the government than if it comes from Aboriginal people. (Group 1, regional)
Welfare has no right to take the values of parenting away from us. You know they want white people to counsel my daughter. My daughter has never had anything to do with white people, only through school. How dare people come in and take our lives over! I mean in a way the Stolen Generation is continuing, isn’t it.

(Group 6, metro)

You might not know the black fellas but somebody else will because we’re all kin, and then you can trust what they say; I just don’t trust whitefellas. (Group 2, metro)

**Personal psychological factors**

Participants felt that personal attributes such as their identity and self-esteem were important to their outlook on life. It was intimated that there was a strong connection between self-perception and actions, especially in regard to health risk behaviours:

Identity is very important, I think you have to know who you are because people will tell you to do things [health behaviour] but if you know who you are you won’t do the wrong thing. (Group 4, regional)

If you let issues affect you in a strong way it can destroy you but if you stand up and be strong and say ‘I know myself; I know who I am and I know my background, I know my present and my future’ it helps you to handle the issues.

(Group 2, metro)

If you’re confident enough and your self-esteem is high enough then you don’t feel the need to be influenced. (Group 1, regional)

The importance of personal choice was emphasised constantly. It was reiterated within every discussion and conveyed through demonstrations and descriptions of participants’
actions and behaviours. For instance, when participants discovered they were not being offered watermelon and orange juice during meetings because their high sugar content was not healthy for diabetics, it was considered a violation of their right to choose. The participants discussed the importance of individuals having the opportunity to make their own decisions, regardless of the ramifications. The imposition felt when others attempted to influence or control their decisions extended into every context, including familial encounters:

Being given the chance to make your own choices is very important. (Group 1, metro)

I rang my niece because one of my cousins died. He was an alcoholic and my niece said ‘Uncle, I’ve been over there many times over the last two years telling him he’s got to stop the drink otherwise it will kill him’. He made the choice to keep on drinking and he died at the age of 42. For him, choosing for himself was very important. (Group 5, regional)

Many participants spoke of the psychological distress caused by circumstances they and their families were encountering. The level of their distress was supported by the strong emotions they sometimes conveyed through their conversations. Some participants cried or had angry outbursts while they shared their distressing situations. In other instances, participants left the meeting to have what they referred to as a ‘calming smoke’ after engaging in conversations regarding their stressful circumstances (participants were reminded that counselling services were available if they required additional support after the meeting). Using health risk behaviours as stress relief and coping mechanisms was also mentioned by several participants:
It [marijuana] makes me feel good within myself. I could be stressed out and then have a smoke [marijuana] and it’s all gone. (Group 6, regional)

I’m just going to have a smoke, ’cause I’m stressed. (Group 1, metro)

Discussion

The PAR approach used within this study empowered the community members, giving them control over the research process. This resulted in the development of knowledge that was salient to the community members in regard to their health behaviours. The process was emancipating, allowing the participants to address aspects that were important to them, rather than being directed to consider aspects that others felt should be important. In addition, by developing an understanding of the lived experience of the participants through yarning, this research endeavoured to acknowledge the relevance and importance of traditional Indigenous ways of gaining and disseminating knowledge.

The research illuminated findings that suggest Indigenous Australians living in urban communities consider factors relating to culture, social connections, racism, communication, and personal aspects to be particularly salient to their health behaviour. Several of the themes, including culture, racism, and communication, highlight the tension associated with being a member of a minority cultural group that has been marginalised by the practices and attitudes of the dominant cultural group.

A distinct and strong cultural identity emerged as a pervasive aspect of Indigenous life in the present study. The protective properties of Indigenous traditions and culture were often conveyed, during conversations and had direct relevance to health behaviours. The prominence and importance of culture and cultural identity with respect to health behaviour were indicative of the participants’ holistic perspective of health, and aligns
with prior research (Kruske, Belton, Wardaguga, & Narjic, 2012; Priest, Mackean, Davis, Briggs, et al., 2012). The emergence of this theme highlights the importance of cultural perspective when examining factors that affect health behaviour. It also provides a caution regarding any attempts to explain the complexities involved in understanding the factors that influence health behaviours of Indigenous Australians without having an Indigenous cultural perspective.

Social connections were considered very important within the Indigenous communities’ cultural perspective. Conversely, culture, social connections and health behaviour were linked in a complex manner. In particular, relationships with family and kin, and the associated obligations involved in these relationships, significantly influenced health behaviours. An aspect that seemed particularly important was the cultural obligation to distribute resources among family members; this potentially diminished personal resources and exacerbated socio-economic disadvantage. Prioritising others’ needs before their own in this manner reduced community members’ capacity to maintain or improve personal health behaviour. Such cultural obligations created a further layer of complexity regarding social dynamics that are not commonly experienced in non-Indigenous groups (Johnston & Thomas, 2008).

The priority placed upon cultural identity may be exacerbated by contemporary and historical racism, including attempts to colonise and assimilate the Indigenous people into the non-Indigenous culture, and subsequent acculturation. Retention of cultural characteristics (cultural identity) within a person’s social identity is an important component of the concept of self and considered one of the essential psychological protections against discrimination (Phinney, 1990). The importance of cultural identity in the face of discrimination and acculturation is well documented (Lee, 2003; Phinney, 1990). The connection between cultural identity and health is also beginning to become
apparent (Priest, Mackean, Davis, Briggs, et al., 2012). Moreover, previous Indigenous-led research suggests that rather than being a factor that supports health, Australian Aboriginality (cultural identity) is synonymous with health and wellbeing (Bond, 2007). This notion appears to be steeped in a cultural understanding that may be difficult to convey or support using a non-Indigenous perspective.

Indigenous ways of knowing are complex and unique, with a strong focus on the delivery of knowledge from Indigenous community members, especially elders, who are held in the highest esteem for their cultural wisdom. Priest et al. (2012) shed light on the link between Indigenous ways of knowing and perspectives on health and whereby Indigenous knowing is comprised of oral storytelling, role modelling, physical and spiritual connection to country (the land), and art/artefacts. Each of these factors are perceived to promote health and wellbeing, mainly via their promotion of social connectedness, as the coming together of community members is central to the sharing of knowledge and traditional activities. Health behaviours sits within the broader picture of health and wellbeing and therefore Indigenous ways of knowing are important factors influencing health behaviour that must be considered in the design of initiatives targeting such behaviours.

Resistance to concepts or practices that stem from the non-Indigenous culture appeared to influence participants’ responses to social encounters and social norms. Research suggests such social resistance is a natural consequence of maintaining cultural identity in the presence of discrimination (Factor et al., 2013). Social resistance theory involves people within non-dominant cultures demonstrating reluctance to incorporate the concepts and ideations of the dominant culture into their lives as an act of everyday resistance toward subjugation (Fordham & Ogbu, 1986). This theory has recently gained traction in the context of health, especially in research involving minority groups.
such as African American people in the United States (Factor et al., 2011, Factor, Williams, et al., 2013). Given the sentiment expressed in the current study’s discussions, there are grounds for considering the effect of social resistance in the context of the health behaviour of Indigenous Australians. For instance, reluctance to respond to health messages or to adopt health behaviours that appear to promote the dominant cultural perspective may be in part due to social resistance towards the dominant cultural group. Investigating the implications of social resistance may contribute to understanding Indigenous Australians’ health behaviour and their responses to health promotion initiatives.

Despite the cultural importance placed upon prioritising the needs of family and kin, personal choice was also identified as having a strong influence on health behaviour. Furthermore, participants sometimes prioritised personal choice above health-promoting behaviour. A recent study into the factors that influence Indigenous Australians’ food choices referred to the freedom to choose (personal choice) as a form of autonomous control (Brimblecombe et al., 2014). Deci and Ryan (1985) theorised that the importance of personal choice often originates from the need to feel in control of personal circumstances and is a psychological priority. Lack of control becomes particularly significant when it occurs in a number of circumstances, or when there is a perception that several situations are beyond the control of the individual or group (Ryan & Deci, 2000). Depriving an individual or a group of their ability to control their circumstances can result in emotive reactions, including detrimental behaviours such as health risk behaviours (Ryan & Deci, 2007). Continual marginalisation that may be encountered as a member of a minority culture could be perceived as lack of control over one’s circumstances, similar to the manner indicated within Deci and Ryan’s Theory. Although research indicates resistance to health promotion campaigns can
occur for a range of reasons including frustration, resentment, or pleasure, in this instance the imperative to take up an alternative position may occur in response to the perceived lack of control in other areas of their lives (Brehm, 1966; Factor et al., 2011; Gjernes, 2010). This response may be aligned with psychological reactance theory, which explains the inclination to reject concepts or communication because of the perception that they reduce a person’s freedom to choose for themselves (Brehm, 1966). Alternatively, the response may be aligned with the aforementioned social resistance theory involving resistance against embracing attitudes and beliefs of the dominant group (Factor et al., 2011; Factor, Williams, et al., 2013; Fordham & Ogbu, 1986).

In the present study, there was consensus that effective communication was imperative to the encouragement of health-promoting behaviour because it facilitated the gathering of information necessary for making informed choices. In some instances, distrust regarding the source of health information was a barrier to effective communication. This distrust often originated from historical racism and was perpetuated by contemporary racism. Distrust toward the State and the health care system has been referred to previously in the context of Indigenous smoking cessation, where it has been suggested that this barrier could be alleviated through relationships built on the premise of respect, care, commitment, and compassion (Bond et al., 2012). The participants in the present study also mentioned that respect was important, fostering healthy relationships where communication was effective. Typically, the community members emphasised the importance of relational aspects such as trust and respect when considering the validity and credibility of information. There were multiple references to trusting Indigenous people and family members, and therefore, these people were considered appropriate for providing credible health information and role modelling of health behaviours.
The impact of historical and contemporary racism and the subsequent marginalisation of Indigenous people were reported to have a pervasive influence on their lives and health behaviour. This resonates with studies that report health risk behaviours are used as coping mechanisms in distressing situations, especially in relation to the experience of racism (Ziersch et al., 2011b). Furthermore, studies indicate that high levels of distress are associated with physiological responses that expedite health problems such as cardiovascular disease and strokes (Hamer, Molloy, & Stamatakis, 2008; May et al., 2002). The notion that those who report experiencing racism and marginalisation and also report poorer health outcomes is gaining prominence within the health literature (Larson et al., 2007; Paradies & Cunningham, 2012; Paradies et al., 2008; Priest, Paradies, Stewart, et al., 2011). This indicates the ongoing necessity to address racism and marginalisation within Australian society. Consequently, the expectation to significantly change Indigenous health behaviour and health outcomes without addressing the larger societal issues may be unachievable.

Facilities dedicated to the needs of the Indigenous population may assist in ameliorating the marginalisation of urban communities such as those within this study. From their cultural perspective, the study participants considered such facilities were also important. They indicated benefits may include the ability to share in traditional activities (some of which provide health benefits) and gain support from one another. The intertwining of culture and health would indicate that supporting Indigenous culture may promote positive health behaviour. Indeed, other Indigenous cultures, such as the Maori culture, place particular significance on their meeting places (maraes) and the associated health benefits, including access to health promotion information and healthy lifestyle support programs (Simmons & Voyle, 2003). Furthermore, it is possible that the priority of a cultural meeting place may indicate a desire for a sense of belonging, or
recognition by non-Indigenous Australians. Perhaps the most important benefit of such facilities would come from addressing marginalisation by providing a space that prioritises Indigenous people and empowers their choices.

Although a PAR methodology is recommended as appropriate for understanding the lived experiences of Indigenous participants, there are inherent challenges associated with this research process. Indigenous health research aimed at understanding health behaviour using a PAR approach can be enlightening and empowering for Indigenous participants in their capacity as co-researchers. This empowerment must, however, be juxtaposed with the implication that such a process usually also involves a request to generate solutions regarding factors affecting suboptimal health behaviour. One such factor is indeed the history of racism and marginalisation; as the targets of racism, it may seem contradictory to request that Indigenous community members provide solutions to a situation they seemingly have limited control over.

Several topics that were addressed during the discussions generated heightened emotional responses. In particular, conversations concerning racism and discrimination were conveyed with a sense of the pain and suffering these issues caused the community members. Strong emotions were also conveyed regarding the perception that non-Indigenous people were judgemental toward Indigenous people and expected them to conform to non-Indigenous social norms. Conversely, conversations regarding culture caused animated and exuberant responses that conveyed the passion and positivity involved in this topic. The emotional content of these responses may appear unusual within the conventions associated with investigating health behaviours from a non-Indigenous perspective.
Conclusion

In light of Priest et al.’s (2012) call for ongoing exploration of Indigenous perspectives of health and wellbeing, the present study has contributed to this need by providing evidence of social and cultural influences on health behaviour. This research provided the opportunity to obtain enlightening information and insights into Indigenous peoples’ perspectives on their health behaviour. In the process, the community members who participated expressed a sense of validation at the opportunity to voice their opinions. Gaining understanding of the factors that influence health behaviours from the perspectives of Indigenous Australians may provide insight into aspects that might have been missed by other methods of investigation. Improving current understanding in this manner may provide insight and direction for health-promoting initiatives and messages targeting health risk behaviours. However, this research indicates that to address inequities in health behaviour, there needs to be a shift in the social climate of Australia. Government initiatives such as ‘Closing the Gap’ that focus on health disparities may need to be accompanied by initiatives that target social attitudes to racism. From the current Indigenous perspective, providing space for Indigenous people to immerse themselves in their culture may enhance their future health outcomes. This will also promote validation of Indigenous cultural traditions within mainstream society.
Chapter 6

The Effect of Social Support on the Health of Indigenous Australians in a Metropolitan Community

In light of the importance Indigenous people placed upon social connections, this chapter focuses on social support in the lives of Indigenous Australians in a West Australian metropolitan community. It examines the influence that such support can have on the health behaviour of Indigenous people. A co-authored version of this is published as: Waterworth, P., Rosenberg, M., Braham, R., Pescud, M., and Dimmock, J. (2014), ‘The effect of social support on the health of Indigenous Australians in a metropolitan community’, Social Science and Medicine, 119, 139–146. doi: http://dx.doi.org/10.1016/j.socscimed.2014.08.035. The paper is presented in Appendix R.

Introduction

The current discrepancy between Indigenous and non-Indigenous Australians’ life expectancy (10.6 years for males and 9.5 years for females) is an ongoing issue and is attributable to differences across a range of health outcomes, including chronic disease, disability, and injury (ABS, 2012c). Research indicates that a substantial portion of the health gap between the two groups can be attributed to social determinants (Anderson, 2007; Booth & Carroll, 2005). The World Health Organisation lists social gradient, stress, early life, social exclusion, work, unemployment, social support, addiction, food, and transport as the major social determinants that contribute to health status (Wilkinson & Marmot, 2003). While it is recognised that Indigenous Australians are affected by these determinants, particularly those related to high levels of
unemployment (ABS, 2011b; Carson et al., 2007), additional factors that influence this group include the effects of marginalisation, discrimination, and racism (Larson, et al., 2007; Paradies & Cunningham, 2012; Priest, Paradies, et al., 2012; Priest, Paradies, Stewart, et al., 2011; Ziersch, Gallaher, Baum, & Bentley, 2011a; Ziersch et al., 2011b). In addition, it has been suggested that government laws and policies may affect Indigenous people’s health status by reinforcing detrimental practices and attitudes (Hunter, 2000; Reynolds, Howse, & Beasley, 2007).

Theories and frameworks have been developed to illustrate the link between social determinants and health outcomes. They depict a multilevel structure involving three discrete yet closely interrelated levels: upstream, midstream, and downstream (Berkman & Glass, 2000; Carson et al., 2007; Turrell & Mathers, 2000; Williams, 1997). The upstream (macro-level) factors include the socio-economic determinants of health and societal practices such as racism and discrimination. The midstream (intermediate level) factors include psychosocial aspects that pertain to the influence of social factors on an individual’s mind and behaviours. The downstream (micro-level) factors include changes to physiological and biological functioning brought about as a consequence of influencing factors operating at other levels.

These conceptual frameworks indicate that midstream factors such as social support, defined as resources provided to people in the context of formal and informal helping relationships (Gottlieb & Bergen, 2010), can intervene in the causal flow between upstream factors and health outcomes (Berkman & Glass, 2000; Turrell & Mathers, 2000). Prior research indicates that social support can be examined within the broader context of social capital, which includes the processes that led to the support, the support itself, and the outcomes of the support (Carpiano, 2006). Alternatively, social support can be examined in a more discrete context where the focus centres on
exploring the outcomes of the support (Carpiano, 2006; Croezen et al., 2010; Gottlieb & Bergen, 2010). These support resources include emotional support, intimacy, interactions, and tangible support (House, Landis, & Umberson, 1988). Social support usually originates from relationships made within an individual’s social network (Gottlieb & Bergen, 2010). Therefore the identification of these networks is paramount when investigating social support (Barrera, 1986). The relationships within an individual’s social network are classified according to their level of association. According to Gottlieb et al. (2010), bonded relationships occur between intimate associates, and therefore, the individuals are usually from homogeneous backgrounds. In contrast, bridging relationships refer to associations between less intimately connected people who stem from heterogeneous backgrounds (Gottlieb & Bergen, 2010). Bridging relationships provide opportunity to obtain information, advice, and practical assistance derived from a different perspective (Gottlieb & Bergen, 2010; Granovetter, 1973), which promotes psychologically and physically positive outcomes (McKenzie & Harpham, 2006).

Support gained from bonded and bridging relationships has been reported in the literature focusing on the social capital of Indigenous Australians (Berry, 2009; Brough et al., 2007; Browne-Yung et al., 2013). However, this research has focused largely on the circumstances that instigated these relationships rather than the social support they facilitated (Brough et al., 2006; Brough et al., 2007; Browne-Yung et al., 2013; Ziersch et al., 2009). Cultural identity and shared history promoted bonded relationships between Indigenous people (Brough et al., 2006; Browne-Yung et al., 2013), while discrimination and historical encounters acted as barriers to the formation of bridging relationships between Indigenous and non-Indigenous people (Brough et al., 2006; Browne-Yung et al., 2013). Although valuable from a social capital perspective, this
does not thoroughly address the outcomes of the support; social support research focuses specifically on the support afforded by the relationships forged within a person’s social network (Croezen et al., 2010; Richmond & Ross, 2008).

Research investigating the link between social support and health has mainly focused on the protective (positive) effect of social support in relation to mortality, chronic disease, disability, depressive symptoms, and wellbeing (Croezen et al., 2010, 2012; Iwasaki, Bartlett & O’Neil, 2005; Kawachi et al., 1996; Shaikh, Yaroch, Nebeling, Yeh, & Resnicow, 2008; Veenstra, 2000; Ziersch et al., 2009). Social support also affects health behaviours such as physical exercise and smoking (Croezen et al., 2012; Hunt, Marshall, & Jenkins, 2008; Shaikh et al., 2008; Uchino, 2006; Weitzman & Kawachi, 2000). In some circumstances, social support can have a negative effect (Croezen et al., 2012; Richmond & Ross, 2008), and in such instances, high levels of social support do not have a protective effect on health (Richmond et al., 2007). The potential for negative consequences from social support becomes more apparent in populations where stressful circumstances such as poverty or discrimination are prominent (Richmond & Ross, 2008).

The influence of social support within Indigenous Australian communities has not been thoroughly investigated. However, it has been established that connections between individuals are particularly important to Indigenous Australians (Brough, Bond, & Hunt, 2004; Hunt et al., 2008; Reilly et al., 2008). This often results in bonded connections within a large family and community network, which provides many resources and reinforces cultural identity (Bond, 2005; Brough et al., 2006; Browne-Yung et al., 2013). Historically, Indigenous Australians have been linked through a complex kinship system that supported family and social structure (Beckett, 1988; Smith, 2004). Past policies that led to forced separations have eroded these traditions,
which in some areas have resulted in present-day challenges to the strength of this culturally based system (Morissey, Pe-Pua, & Brown, 2007). Nevertheless, the social world of Indigenous Australians revolves around the bonded relationships formed with extended family members, which serves as a basis for individual and social identity (Schwab, 1988). Social engagement with non-Indigenous people appears to be hindered by discrimination and perceptions of negative racial stereotypes (Brough et al., 2006; Browne-Yung et al., 2013), and high levels of interpersonal and systemic racism towards Indigenous Australians have been reported in numerous studies (for example Paradies & Cunningham, 2009; Priest, Paradies, Stewart, et al., 2011; Ziersch et al., 2011a). Further, the historic conflict surrounding the colonisation of Australia that involved the non-Indigenous colonisers’ systematic attempts to oppress and assimilate Indigenous Australians has left a legacy of social disruption and separation (Dudgeon et al., 2010; Hunter, 1993). These negative interactions have also served to reinforce Indigenous cultural identity and the importance of connections between Indigenous people (Brough et al., 2006).

The present study focused on exploring Indigenous Australians’ impressions of their social network and social support using a combination of qualitative methods and Participatory Action Research methodology. The objective of the study was to identify the influence of social support on the health outcomes of Indigenous people within Western Australia.

**Method**

**Methodology**

Participatory Action Research (PAR) methodology was employed throughout the study because it empowers and emancipates participants and is recommended when engaging
marginalised groups such as Indigenous people (van der Velde et al., 2009). The PAR process encompassed collaboration and consultation with the participants and members of the wider Indigenous community. This involved a committee comprising eight elders (leaders) and respected community members who provided guidance during the research; two female community members who acted as liaison people to assist with the study; and a community feedback and consultation meeting. Prior to the study, the liaison people had been involved in capacity-building within the community and were respected and trusted by the participants. Qualitative methodology involving interviews was also used for data collection.

Community

The study was conducted within a metropolitan Indigenous community located in the south-west suburbs of Perth, Western Australia. This community was approached because of prior associations with the researchers. The community was serviced by a multi-cultural community centre, which was well regarded by the Indigenous community and was very supportive and sympathetic to the needs of the local Indigenous people. This centre was frequented by Indigenous community members and therefore was used as a research base. Within the study location, the Indigenous community lived among a variety of other ethnic groups (ABS, 2011c). Table 1 provides demographic information on the study sample and those living in the south-west suburbs of Perth.

Participants

Recruitment was conducted by the liaison people using their personal networks. To be eligible to participate, individuals had to meet the following criteria: (1) be recognised as an Indigenous member of their community by the liaison people and committee members, and (2) be over 18 years of age. Seventeen members of the community
participated in the interviews. The participants were predominantly females over the age of 40 who were not in the labour force. There are some differences between the study sample and that of the community at large (e.g., age). This is a result of following culturally appropriate recruitment techniques that meant recruitment was controlled and conducted by liaison people in consultation with the committee members.

Table 8 Sample and community demographic characteristics

<table>
<thead>
<tr>
<th></th>
<th>Indigenous</th>
<th>Non-Indigenous</th>
<th>Sample</th>
</tr>
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<tbody>
<tr>
<td>Multi-family house</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>household (%)</td>
<td>5</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Average number of people in the household</td>
<td>3.7</td>
<td>2.6</td>
<td>4.6</td>
</tr>
<tr>
<td>Average children per family</td>
<td>2.6</td>
<td>1.7</td>
<td>3.1</td>
</tr>
<tr>
<td>Median weekly household income (AUD)</td>
<td>1208</td>
<td>3061</td>
<td>-</td>
</tr>
<tr>
<td>Not in the labour force (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-44 yrs</td>
<td>45.4</td>
<td>9.7#</td>
<td>50</td>
</tr>
<tr>
<td>45+ yrs</td>
<td>57</td>
<td>9.7#</td>
<td>70</td>
</tr>
<tr>
<td>Proportion of population by age and gender (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;15 yrs</td>
<td>35</td>
<td>37</td>
<td>20</td>
</tr>
<tr>
<td>15-40 yrs</td>
<td>37</td>
<td>36</td>
<td>36</td>
</tr>
<tr>
<td>40+ yrs</td>
<td>28</td>
<td>27</td>
<td>44</td>
</tr>
<tr>
<td>Proportion of population by gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td>40</td>
<td>60</td>
<td>49.6</td>
</tr>
<tr>
<td>Males</td>
<td></td>
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</tbody>
</table>

# ABS figure for the non-Indigenous labour force is for age 15 years and over.
Notes: 1. The ABS statistics include suburbs that were not represented in the study.
2. In light of the differences in distribution of the populations, ABS recommends caution when comparing Indigenous and non-Indigenous statistics.

**Procedure**

Prior to commencement of the study, ethics approval was obtained from the Western Australian Aboriginal Health Ethics Committee and a University Human Research Ethics Committee (see Appendices H, I). Written support for the study was provided by the elders of the community and the manager of the community centre involved in the
study (see appendices E, F).

After providing informed consent (see Appendix M), community members participated in individual interviews of approximately 60 minutes’ duration, which were digitally recorded and conducted at the community centre. The interviews were conducted in a yarning style (as per Bessarab & Ng’andu, 2010) with the aid of a semi-structured interview protocol that developed conversations around the topic of connections and health. Yarning promotes an informal relaxed discussion that takes the form of a journey visiting topics of interest to the participants and the researchers, and is based on trust and understanding (Bessarab & Ng’andu, 2010). The lead researcher also made field notes, which were used as a form of triangulation and for reflection (as per Silverman, 2013).

To ensure cultural sensitivity and inclusivity, member checking and community consultation were conducted simultaneously following data collection (Liamputtong, 2008). Member checking provides an opportunity for participants to validate emergent themes (Lincoln & Guba, 1985); community consultation allows the same for the wider community (Liamputtong, 2008). The Indigenous liaison people who originally recruited participants visited them at their homes to invite them to attend the member checking meeting. In consideration of the close relationships in Indigenous communities, if participants’ relatives and other members of the community were present during these visits, it was culturally appropriate to invite them. Consequently, 41 members of the community, including friends and family of the participants, attended, which provided them with an opportunity to discuss and verify the identified themes.
Analysis

The analysis process was based upon the phenomenological approach described by Creswell (2007). Prior to the analysis, the interviews were transcribed verbatim and the transcripts were imported into QSR NVivo10 (QSR International Pty Ltd, Australia). The analysis was conducted using an empathetic stance, which contributed to the trustworthiness of interpretation (Maykut & Morehouse, 1994). The data were analysed thematically via deductive and inductive processes (Creswell, 2007; Maykut & Morehouse, 1994) while using a constant comparison process to ensure accuracy (Maykut & Morehouse, 1994; Strauss & Corbin, 1990). The PAR methodology enabled the lead author, a non-Indigenous woman raised and educated in New Zealand, to maintain a culturally appropriate stance and understanding throughout the process. The researcher’s field notes assisted reflection regarding possible bias; the notes and the subsequent reflexive process contributed to methodological and interpretive rigour (Silverman, 2013). Triangulation between members of the research team was also employed, providing opportunity to examine different perspectives (Creswell & Miller, 2000). This involved the researchers and liaison people examining the data and discussing the emergent themes. Member checking and committee and community consultation regarding the themes were also performed to further confirm their validity (Creswell & Miller, 2000). The data and emergent themes were discussed with the committee in order to gain their opinions and advice. Subsequently, the themes were discussed at a combined member checking and community consultation meeting where the participants, their families, and the wider community had the opportunity to comment. This included formal discussion during the meeting and informal individual conversations afterwards.
Findings

In all data collection episodes, participants reflected on their connections with people. The participatory action approach of the research and the yarning format used to conduct the discussions allowed the participants the freedom to discuss the aspects of those connections that they felt were most important. Due to this format, although health was the intended focus of the study, some discussions meandered away from this topic and addressed social support more broadly. The results are presented under the headings of the emergent themes identified during these discussions.

Positive effects of social support from bonded relationships

Bonded relationships involving immediate family members such as partners, children, and parents were very important to the participants, and provided a substantial source of support for them. The majority of the participants had partners, and those that did, often reflected on the strong connection that they felt towards them. Participants also frequently mentioned that their partners provided a substantial source of support:

   We’re one, we’re married. We’ve been through a lot. We’ve got each other’s back. (51-year-old female)

Several accounts of extended family members supporting each other through numerous difficult situations such as illness, and financial hardship were commonly shared. The bonded relationships that formed between extended family members provided support for participants. For example:

   Cousins I get on pretty good with. I’m very close to one, I visit her often and ring her every day. She’s always been there for me. When my brother died she was the one that was there. When I rang up, and cried, she was always there. When we
needed money, I asked if I could borrow some and they just give me $400 without complaining. (50-year-old female)

**Negative effects of social support produced by over-obligation and unidirectional support involving bonded relationships**

In contrast to the positive effects of social support, there was also responsibility of care that arose from involvement in bonded relationships. Two women mentioned they acted as caregivers for their partners, one because her partner had a chronic disease and the other because her partner had a disability caused by an accident. Another participant stated that her husband had been her carer for many years when she was incapacitated due to an illness. Some of the participants were employed as carers for close relatives who were debilitated because of illness. Several others mentioned they provided intermittent care for their partners or other people who had a chronic illness or depression. For instance:

> My daughter’s dad, I’m looking after him, he’s a disability pensioner. (51-year-old female)

Most of the participants were involved with children from their current and previous partner(s), as well as with their current partner’s children from other relationships. Several participants also mentioned being the primary caregivers for their grandchildren and for other people’s children. As a consequence, in their older years when their own health concerns were likely to have increased, they were forced to place the needs of others before their own. One participant who had a 60-year-old partner and was also the primary caregiver for two young grandchildren, reflected:
We’ve got to start worrying about our own health. It’s hard when we’ve got our grannies (grandchildren), we sort of brought ’em up since they were babies. With our grannies, we don’t have time to do things for ourselves. (49-year-old female)

She mentioned that both she and her husband had been caring for their grandchildren since they were born because their daughter experienced a drug addiction that prevented her from caring for them. She mentioned she had also raised her ex-sister in-law’s child and cared for the child of another daughter while she recovered from post-natal depression.

It was often noted that grandparents were the primary caregivers for their grandchildren because their children were incapable of looking after them as a result of substance abuse and addiction, incarceration, or mental health problems:

The middle daughter, her boy, we looked after him when she was in prison because he got sick. Child’s not allowed to be sick in there. (60-year-old male)

One participant explained that she was not only caring for a partner with a chronic illness and depression that required her to care for him intermittently, but she was also responsible for the care of her two teenage children and a three-year-old child of a distant relative. This highlights the substantial burden placed on some participants given their extensive family responsibilities:

I wouldn’t have my little girl, only her mother looked on Facebook and seen me talking to my family. She gave me my little girl when she was only four months old. The mother just wanted to smoke and do drugs and get drunk. (51-year-old female)

She also mentioned that the authorities asked her to care for the sibling of the child she
already had because the mother was pregnant and still struggling with a drug addiction. She commented that she felt obliged to care for them because if she did not, they would be placed in government accommodation, once again highlighting the strong sense of responsibility felt by this group of participants, even for children outside their family.

Participants also shared stories of adult children that were causing them psychological distress due to substance abuse, physical or mental illness, illegal activities, and incarceration. Many participants mentioned at least one of their adult children who were involved in a stressful situation; some mentioned several. One participant spoke about her son who had a mental illness, and as a consequence, his behaviour was jeopardising their tenancy in their accommodation. In conjunction, another son who had recently been released from prison was forcibly apprehended in her home on suspicion of robbery. Another participant explained that both of her adult children were experiencing difficulties; one was in prison and the other regularly used illicit substance:

The eldest one is on marijuana. It’s destroying her. It’s very worrying. (49-year-old female)

Participants often mentioned the stress and difficulties caused by the lifestyle of their extended family members. Sometimes there was also pressure to conform to the behaviour of others. Conversely, observing the behaviours of others caused some participants to reflect on the ramification of other’s choices and modify their own behaviour:

I think seeing my dad was cruel to Mum it just turned me off. I think seeing all that I couldn’t drink. We’ve got family members who drink; I’ve got three brothers and a sister who are alcoholics. You see a lot of abuse, violence. (53-year-old female)
Limited or inadequate social support caused by withdrawal from bonded relationships

Some participants chose to withdraw from extended family connections in order to protect themselves and their immediate families. They did not want their extended family detrimentally influencing their immediate family members, or causing them physical or emotion harm. Several participants mentioned moving their immediate family away from their extended family in order to protect them from an environment they felt was unsatisfactory:

We moved because of domestic violence. Not as in my husband bashing me. It was my in-laws were physically and mentally abusive. (51-year-old female)

Participants spoke about moving away from their extended families in order to avoid being involved in the lifestyle they were leading, or observing the ramifications of these lifestyles:

Watching them die of alcohol poisoning depressed me so I got out of it. Mainly heart attack and cancer in the liver, there were 24 deaths this year. (42-year-old female)

When participants moved away from their extended family, this fragmented kinship affiliations and reduced the opportunity to develop new bonded relationships. Participants originating from other parts of the country stated that they did not have many Indigenous friends. Although they did not verbalise why, it was inferred that it may be related to the participants being from another kinship group and therefore considered an outsider:
I’ve done aboriginal dancing with black fellas from over here but we sort of keep to ourselves because we’re Koori’s [an Indigenous group from another area]. (48-year-old male)

Several participants commented that problems with their physical and mental health acted as barriers to participation in activities, because they restricted them from attending. This could contribute to participants’ becoming isolated from a wider network of people. When it occurs in conjunction with separation from extended family members there is substantial reduction in the availability of social connections:

There’s a group they got healthy things there. I haven’t been for a while because I was on one of my downers. (55-year-old female)

**Strong desire for connection**

While commenting on their relationships and the support they provided, participants often spoke about the desire for connection and its importance. This meant it sometimes overrode consideration of other needs:

To me her first love is books. They give her pleasure, not me. Because when she’s reading I don’t have her attention. If she was an alcoholic at least I’ll have some sort of attention. (55-year-old female)

The above mentioned mother, who isolated her children from their extended family in order to shield them from the family’s perceived detrimental influence, complained that her daughter’s love for reading books prevented the connection she desired. Although she sacrificed family connections to protect her children from harm, the need for connection with her children appeared to promote disregard for their safety. The mother could acknowledge the pleasure her daughter gained from reading and the deleterious
effects of alcohol, but her comments indicated her need for connection overrode consideration for these issues.

**Lack of social support from bridging relationships**

There was considerably less emphasis placed on connections that would be considered bridging relationships. A few participants mentioned they developed friendships with people outside their familial group. These friendships developed with work colleagues or people they met through activities. For instance, one participant mentioned she had developed a close group of friends through softball, while another shared that she had developed friendships through her love of books.

Work colleagues rarely provided a source of friends and acquaintances. Only one third of the participants were employed, however, and therefore many of them did not have the opportunity to increase their social networks via this source. In conjunction, several of those who were employed as paid caregivers for family members, which did not provide them with the opportunity to extend their social networks. The comments made by employed participants mostly indicated they had not established friendships with work colleagues.

Although workmates did not appear to develop into friends, workplace interactions may provide opportunities to breakdown preconceived ideas regarding racial groups. A male participant noted that through his work, his confidence increased. He attributed this to the acceptance he felt from his non-Indigenous colleagues. It also provided his workmates with the opportunity to re-evaluate racial stereotypes. Consequently, his positive experience at work had an empowering effect on him:

> Meeting people through work, I thought a lot of people would reject me, being black. Especially working with whitefellas you know and handling money and
that, I thought things would happen, but no. I have keys to the shop and they trusted me with them. But you know you got to earn it with people 'cos people look at you being black and they just sort of judge you; ever since I’ve been working I been good. Like what happened one time, they thought I was stealing petrol out of me own truck. Three blokes went around to my mates and said there’s a black fella around there knocking your petrol off. Lucky one of my friends got up to check it out. I was lucky really ’cos it could have ended badly.

(47-year-old male)

This comment also highlights that Indigenous people sometimes feel they have to justify their trustworthiness because of the colour of their skin.

Few participants mentioned sports or other activities, and those that did rarely spoke of close connection with people from these groups. Conversely, participants’ involvement in health-promoting events was more common. Although these groups were designed to promote healthy lifestyles, the participants felt they provided connections, friends, and support networks. These events provided the opportunity to participate in activities, gain social support and develop friendships. One participant commented:

When I come to the centre to learn cooking, I made friends. I yarn with them. (56-year-old female)

Discussion

This study explored social support among a community of Western Australian Indigenous people and showed that many participants shared large social networks. These networks mainly included bonded relationships with members of their family. The participants’ networks rarely incorporated people from outside their Indigenous
community, indicating a lack of bridging connections. It has been suggested that a well-developed social network needs to include bonded and bridging relationships in order to ensure adequate opportunities to receive support as well as provide it (Gottlieb & Bergen, 2010).

Indigenous Australian culture embraces a strong sense of community responsibility and kinship connection that emphasises the importance of maintaining bonded relationships and the support associated with them. Family and community relationships are generally considered the basis of Indigenous Australian culture (McLennan & Khavarpour, 2004). Kinship relationships originating from familial and community ties, and the sense of belonging to the Indigenous community have been described as the basis of their cultural identity (McLennan & Khavarpour, 2004). The juxtaposition of having a cultural identity that accentuates bonded relationships and the difficulties that are sometimes involved in maintaining these connections was emphasised throughout this study.

A high level of reciprocity between extended family members was an overtly positive consequence of their bonded relationships. It was evident that participants felt a mutual obligation to achieve an equitable distribution of the resources at their disposal, which promoted cohesion and social structure within the community. Participants felt these associations afforded avenues to discuss their concerns, which was psychologically therapeutic. These findings are corroborated by other studies that indicated psychological and physical support was provided by bonded relationships between Indigenous Australians united through kinship systems (Brough et al., 2004; Browne-Yung et al., 2013; Dietsch et al., 2011; McCoy, 2008; Reilly et al., 2008). Similar positive outcomes of bonded relationships have been suggested within other Indigenous groups, such as American Indians (Hill, 2006). Physical and psychological support
gained from relationships is considered a positive effect of social support that is reported to enhance wellbeing and health outcomes (Croezen et al., 2012; Kim, Subramanian, & Kawachi, 2006; Lewis et al., 2012). In light of this, the kinship relationships mentioned in this study could be considered to assist positive health outcomes.

The current study highlights the detrimental effects of over-obligation due to large numbers of bonded relationships. Considering the participants within this study were predominantly older females, the results may indicate a greater burden of responsibility for this sector of the community. The situation was reinforced by the cultural emphasis on connection and kinship. This negative aspect of social support has been referred to previously within Australian Indigenous health (Ziersch et al., 2011a, b), especially in the context of the kinship system exacerbating the situation (Browne-Yung et al., 2013). The current study supports the notion that the psychological and physical impact of these obligations was exacerbated by pre-existing disadvantages. These pre-existing disadvantages stem from the socio-economic situation and discrimination, which highlights the effect of societal influences on the situation. Prior research involving Indigenous groups in Australia and internationally suggests that kinship connections can result in sharing the psychological and physical burdens of more people (Brough et al., 2004; Richmond & Ross, 2008). In challenging situations, such as those created by poverty or discrimination, bonded relationships can have a detrimental effect upon individuals’ physical and psychological resources (Browne-Yung et al., 2013; Kunovich & Hodson, 1999; Mitchell & Mark, 2002; Richmond & Ross, 2008).

In several instances, participants also mentioned chronic illness or disability leading to unidirectional support. Unidirectional support is a potential source of over-obligation (Gottlieb & Bergen, 2010) and as such can be a negative aspect of social support
(Mitchell & Mark, 2002; Murphy, 2008). In additions, psychological and physical over-obligation can also be viewed as a negative effect of social support (Mitchell et al., 2002). A Dutch study identified that high levels of negative social support were associated with detrimental health behaviours including smoking, physical inactivity, and excessive alcohol consumption (Croezen et al., 2012). It was apparent that the health outcomes of participants in the current study were also affected by the number of bonded relationships.

Some participants also mentioned withdrawing from kinship associations in order to protect themselves or their immediate family from detrimental behaviour and influences. By withdrawing from their kinship associations, participants were left without an adequate social network and perhaps social isolation, resulting in inadequate social support (Croezen et al., 2010). Withdrawing from family networks in order to promote health has been noted to cause isolation in other Indigenous groups (Richmond & Ross, 2008). In some instances, withdrawal from kinship groups was exacerbated by health issues that prevented participants from attending activities that could provide a source of social support. Corroborating these findings, previous work has identified an association between inadequate social support, social isolation, and poor health outcomes (Lynam & Cowley, 2007; Melchior, Berkman, Niedhammer, Chea, & Goldberg, 2003).

The social networks of participants rarely included bridging relationships that are typically forged with associates from work or acquaintances met through leisure or social activities. In this study participants’ reported exposure to discrimination and racism within these activities suggesting that societal factors may prevent Indigenous people from accessing this type of social support. It has previously been mentioned that in the context of an oppressive history and continued racism and discrimination,
bridging relationships often appear elusive to Indigenous Australians (Brough et al., 2006; Browne-Yung et al., 2013; Ziersch et al., 2011b). The findings in the current study highlight the inherent and undermining nature of racism and discrimination. In response to this situation, the participants appeared to consider it normal to be rejected or misunderstood by non-Indigenous Australians. Indigenous people, at least in this study, appeared conditioned to consider themselves unworthy of being treated as equals by non-Indigenous people. The social hierarchy that is perpetuated by these circumstances reinforces racial stigmas and creates a barrier to interactions. The detrimental effect of this barrier is emphasised in research regarding marginalised groups that indicates benefit of social support obtained via interactions with the wider community (McLaren, 2009; Richmond et al., 2007).

A central theme throughout the interviews was an overwhelming desire for close connection with others. As was mentioned previously, the sense of belonging to the Indigenous community is paramount to cultural and personal identity (McLennan & Khavarpour, 2004). Richmond et al.’s investigation into social support among Canadian Inuits revealed that not all sources of support creating a sense of belonging are health-promoting. Berry et al. (2009) noted that connection increased happiness but did not necessarily decrease psychological distress among the Indigenous Australians involved in their study. The importance of connection and belonging may mean that Indigenous people prioritise these factors over other issues such as health outcomes.

The therapeutic effect of the sense of belonging may be enhanced by gaining it from outside the kinship system. It was noted that psychologically positive effects were gained from associations made outside the kinship system. For instance, acceptance by co-workers seemed to reinforce self-confidence. This could be interpreted as gaining a sense of belonging from the general community rather than as the Indigenous
community. The positive effect caused by gaining a sense of belonging from the general community is supported by research concerning other marginalised groups (Hill, 2006; McLaren, 2009). However, this research highlights the juxtaposition of gaining a sense of belonging from the general community when racism inhibits developing relationships with them and generates distrust towards them.

**Limitations**

Due to the qualitative nature of the study and the small sample size, comprised mainly of older women, the findings cannot be generalised beyond the study sample. However the credibility and validity of the themes was substantiated by the methodological and interpretive rigour employed throughout the study, and by the process of member checking and community consultation (as per Silverman, 2013).

Obtaining data via interviews exposes the process to bias caused by the interaction between the participants and facilitators. There is a common propensity for people to maintain their public image by answering questions in a manner that validates this image (Baumeister, 1982). These biases were minimised by the yarning technique (Bessarab & Ng’andu, 2010) that allowed conversations to flow and encouraged participants to forget the interviewing formality.

The findings indicate there may be benefit in conducting empirically based research. This research could examine the link between the participants’ burden of disease and the social support involved in their connections.
Chapter 7

General Discussion and Conclusion

Overview

This research explored factors that influence Indigenous health behaviour from the perspective of a sample of Indigenous groups in Western Australia. To obtain a broad perspective, the research involved members of two urban communities (n = 157 participants; one regional and one metropolitan), as well as those who support Indigenous groups throughout Western Australia (n = 29 participants). In consideration of the marginalised and vulnerable circumstances of most Indigenous Australians, the engagement of Indigenous participants was conducted collaboratively using a Participatory Action Research (PAR) approach which, in conjunction with the yarning technique, encouraged conversations relating to factors that influence health behaviour to emerge naturally. This meant that the information obtained indicated the salience of the issues to the participants rather than reflecting the assumptions of the researcher (Bessarab, 2012; Liamputtong, 2008).

Identifying a number of factors with personal relevance for community members was a key strength of the research. Given the marginalised status of Indigenous Australians, such factors may have important ramifications for their health behaviour (Liamputtong, 2008). The diversity of factors that were identified during the study originated from the broadly focused inquiry and collaboratively based approach. The broad focus facilitated the exploration of a range of factors simultaneously, and provided an opportunity to identify potential interactions between factors and to consider the implications of confounding effects.
The PAR approach was central to this study because it empowered the participants by allowing them to guide the direction and tenure of the research. The National Health and Medical Research Council (NHMRC; 2003) encourages the empowerment of Indigenous participants because it promotes the reversal of marginalisation. Using a PAR approach led to meaningful engagement with community members. The survey was conducted over a two year period, which provided time for relationship-building with community members and greater understanding and insight into the factors that community members considered salient to health behaviour. Research conducted in the PAR manner is often less prescriptive and more responsive to the participants and the information provided by the participants (Fals-Borda, 2005).

**Findings**

Overall, findings indicate that the Indigenous cultural perspective of health is multi-dimensional and holistic, where the professional health care perspective of health tends to align to the biomedical model of health that focuses on health outcomes and clinical symptoms (Engel, 1977). These differing perspectives accentuate the challenges related to living in a society whose perspectives differ significantly from one’s own. While recognition that Indigenous Australians consider health in a holistic manner is gaining prominence in the health sector (National Aboriginal Health Strategy Working Party, 1989; Priest, Mackean, Davis, Briggs, et al., 2012; Wiseman, Mooney, Berry, & Tang, 2003), understanding the significance of health as a holistic entity to participants in the current research provided the context for the emergent themes and their subsequent explication. There was consistency in the themes that emerged, both in the two communities and among the support people, in relation to the factors that affect Indigenous community members’ health behaviour. The findings indicate that several factors are particularly salient to the health behaviour of Indigenous West Australian
community members:

- culture
- racism
- discrimination
- history
- social connections
- social support
- distrust
- (lack of) personal choice
- socio-economic opportunities or circumstances
- social resistance
- psychological reactance

Although a number of these factors are commonly acknowledged as antecedents to health outcomes (Berkman & Glass, 2000; Brunner & Marmot, 1999), this research offers three contributions: it provides support for several factors that had previously been proposed to influence Indigenous West Australians’ health behaviour; contributes new knowledge and perspectives on factors that were already thought to affect Indigenous health behaviour; and reveals new factors that contribute to the health behaviour of Indigenous people. These aspects are expanded upon in this discussion.

**Key Contributions to Indigenous Health Discourse**

Although many of the factors identified as influencing health behaviour are considered significant, the most significant contributions to the field are outlined hereunder; these include the possible ramifications of social support, distrust, (lack of) personal choice, social resistance, and psychological reactance. The negative effects of over-obligation,
unidirectional support and social isolation can negatively affect Indigenous health behaviour. This research emphasises that cultural and social norms affect social interactions and, consequently, may reinforce their negative influence on health behaviour. For instance, cultural norms emphasise kinship commitments and cultural identity, while negative social norms, including racism and discrimination, inhibit social interactions with, and social support from, non-Indigenous people. Such social norms also exacerbate distrust of non-Indigenous sources of support and advice. The current research also reveals that choosing health-promoting behaviour may come second to the priority placed upon personal choice and the perception that following advice provided by non-Indigenous sources on health behaviour restricts personal choice. Prior research involving similar populations internationally suggests that some of the factors influencing the health behaviour of the Indigenous population in the current study (i.e. racism and discrimination) can instigate social resistance and psychological reactance processes (e.g., Brehm, 1966; Factor et al., 2011). The associations between health behaviour and both social resistance and psychological reactance have been mentioned in this past research, and this suggests that the presence and impact of these processes could warrant investigation in the Indigenous West Australian context.

Another important contribution arising throughout the course of the research is evidence of the distinction between Indigenous versus non-Indigenous reactions to questions pertaining to health behaviour. Responses were often emotionally charged, indicating issues of distress in relation to the topic. It became obvious that the historical and social background that envelops Indigenous Australians promotes very emotive reactions. When the same types of question are asked in other contexts the responses are more ‘clinical’ and focus more directly on topics that are generally considered to be aligned with health behaviour. Commonly, topics such as personal choice, peer pressure, and
accessibility are associated with health behaviour (e.g., Ajzen, 1991; Perugini & Bergozzi, 2001); however, in the current research discussions included other factors such as racism, discrimination and cultural expectations, leading to emotive discussions that highlighted the burden of pain, suffering, and subjugation as fundamental components of the Indigenous experience. A deeper analysis of these findings reveals that strong defensive emotions are expressed by Indigenous participants in discussions relating to non-Indigenous prescriptions of how they should behave (e.g., not engage in health risk behaviours). One statement captures the strength of sentiment that was commonly emphasised in discussions:

They need to stop ******* telling us to be white and do it their way!
A Conceptual Model for Indigenous Health Behaviour

Figure 5 presents a conceptual model of Indigenous health behaviour, constructed from the factors and potential interactions identified during this research. The model is depicted in a manner similar to the models discussed in Chapter 2, to facilitate comparison: Berkman and Glass’s (2000) conceptual model of how social networks impact on health; Brunner and Marmot’s (1999) social determinants of health, Turrell and Mathers’s (2000) framework of socio-economic health determinants, and Williams’s (1997) framework for the study of the role of race in health. These models position factors in a flow sequence to indicate their breadth of influence and allow the suggested interactions between the factors to be mapped (Brunner & Marmot, 1999; Williams, 1997). The diagrams often include references to upstream, midstream, and downstream positioning of factors in order to assist with the explanation of health behaviour (Berkman & Glass, 2000; Turrell & Mathers, 2000); as such, the model offered below follows a similar style.
This discussion both synthesises and expands on the discussions introduced in the discrete phases of the study (Chapters 4, 5 and 6); in particular, it expounds the unique contributions of this research, comparing and contrasting findings with the discourse on Indigenous health. Where appropriate, implications for health promotion initiatives will be examined, as will suggestions for future research. A summary of the limitations is also provided, synthesising the limitations addressed in earlier chapters. This discussion will finish with a synthesis of the implications for health promotion initiatives aimed at promoting healthy behaviours.

**Downstream section: health behaviour**

The model was constructed to explain the factors that affect the health behaviour of Indigenous West Australians, so the sole factor in the downstream section is health behaviour. This differs from other models that address more extensive health outcomes and include a variety of factors in the downstream section, often including wellbeing,
morbidity, mortality, physiological systems and mental health. In the context of the current research, health behaviour include, but are not limited to, the commonly recognised health risk behaviours of tobacco smoking, over-consumption of alcohol (in accordance with NHMRC risk guidelines), use of illicit drugs, physical inactivity, and poor dietary habits. The proposed interactions suggested in the framework could equally be considered for behaviours that support positive health behaviours, such as appropriate use of medications to control chronic health conditions and healthy eating habits.

**Midstream section**

The midstream section includes a number of factors that influence health behaviour but are affected by upstream factors. Factors in the midstream section may interact with and confound the influence of other midstream factors; nevertheless, the midstream factors are considered to have particular influence on health behaviour (the downstream factor). The midstream section includes social interactions, distrust, social resistance, (lack of) personal choice, psychological reactance and socio-economic circumstances. Several of these are new: distrust, social resistance, (lack of) personal choice and psychological reactance. While the other factors (social interactions and socio-economic circumstances) have been included in previous models, the current research has enabled further explication of their positioning within conceptual models of Indigenous health behaviour.

**Social interactions**

As do other models, this one suggests that social interactions influence the health behaviour of Indigenous West Australians. These interactions include both the social connections and social networks maintained by individuals and the social support that is derived from these connections. Social networks appear to be affected by upstream
factors: for example, the social networks of participants predominantly involve Indigenous people, often attributed to the consequences of racism and the trans-generational effects of history; while culture enhances the importance of connections with Indigenous people: the best position for social interactions therefore is in the midstream section of the model.

The centrality of cultural identity in social connections (networks) is evident in the current research, where it appears that social connections and social support are predominantly based on cultural associations. Social support is the support provided by people in an individual’s social network, while social connection refers to the social relationships in the social network. The current research supports Brough et al.’s (2006) findings that suggested that cultural identity is central in social networks. The cultural priority placed upon social connection in the current research has been reported in a number of other studies (Browne-Yung et al., 2013; Dockery, 2010; Reilly et al., 2008). According to Dockery (2010), a common feature of Australian Indigenous cultures is the emphasis placed on kinship and the relationships in families and with other members of Indigenous communities.

In the current study, the community members’ social networks primarily include closely bonded family and kinship networks, and these bonded relationships provide a considerable amount of positive social support that promotes health behaviour. However, it was also revealed that negative aspects of social support occurred; these related to the numerous demands involved from having dense social networks primarily consisting of bonded (homogeneous) relationships.

Over-obligation, associated with the excessive demands of numerous bonded relationships, was emphasised in the current study. Both over-obligation and
unidirectional support were identified as detrimental to the ability of some community members to maintain their own health needs, including healthy behaviour. Unidirectional support usually occurred as a consequence of one of the parties being incapacitated through illness or life circumstance (for instance, substance misuse or incarceration). Although previous research has mentioned that the obligations associated with dense kinship networks are sometimes detrimental to health (Browne-Yung et al., 2013), the impact has been marginalised; this indicates that it may have been considered less important to the participants in that study, or by the researchers involved in the analysis. Nevertheless, over-obligation has been reported to detrimentally affect people (Indigenous and non-Indigenous) who are already struggling with pre-existing disadvantage (Kawachi, Subramanian, & Kim, 2008; Ziersch & Baum, 2004).

The potential burden of social support suggests that more resources should be directed into counselling services and practical help for Indigenous community members. Therapeutic counselling sessions may benefit those who are struggling with incapacitating situations. Capacity-building workshops or counselling focused on topics such as developing self-efficacy and coping with stress may assist people to manage the tension between their own needs and those of others. Practical help, including assistance in caring for children and the infirm, would also reduce the demands of social support on community members. Some health professionals are well placed to provide assistance, especially those in Indigenous-run organisations; however, these professionals are usually already heavily overworked and would require additional resources to perform such tasks effectively. There is also potential for the development of relevant programs to promote self-awareness and efficacy, which would include protecting oneself from over-obligation with regard to social support.
The current research highlights the effect of racism, discrimination, and culture on social connection and social support. Adverse interactions with non-Indigenous people appear to have disrupted relationships between non-Indigenous people and the community members involved in this study. This reportedly limits the social support that might be gained from outside-community sources (bridging relationships; heterogeneous casual relationships); it also potentially diminishes opportunities to gain a sense of belonging and connection from non-Indigenous sources. This poses difficulties when research suggests that the therapeutic effect afforded by the sense of belonging is elevated when gained from the general community rather than a smaller group (McLaren, 2009).

The research emphasises the juxtaposition involved in gaining a sense of belonging from the general community when racism inhibits relationships with them and promotes distrust towards them. This is particularly relevant when Indigenous people are isolated from other Indigenous community members, as in such circumstances they may have limited alternative means of gaining connection, a sense of belonging or social support.

**Distrust**

Distrust towards non-Indigenous people is identified here as a factor that influences Indigenous Australians’ health behaviours, and may influence Indigenous engagement in health behaviours that are governed by non-Indigenous perceptions of health and promoted by non-Indigenous people and organisations. While distrust has not been included in previous models, the current research indicates that considering its impact on the health behaviour of Indigenous people is necessary. The distrust Indigenous community members feel for some non-Indigenous people appears to originate from historical and contemporary racist encounters. In some instances, the psychological distress associated with historical and contemporary racism and discrimination
instigates distrust of non-Indigenous organisations and people, and seemingly has a detrimental impact on relationships between Indigenous and non-Indigenous groups. In light of the influence of upstream factors such as racism, discrimination and history on midstream factors, distrust is placed in the midstream section of the model.

The theme of distrust towards non-Indigenous people is supported by prior research. Brough et al. (2006) stated, ‘It is clear that Australia lacks a social environment conducive to trust-building between Aboriginal and non-Aboriginal Australians’ (p. 16). Recently, Bond et al. intimated that scepticism towards anti-smoking messages and therapies was a consequence of Indigenous distrust of the health system (2012). Research reveals that racism persists in urban Australian communities (Paradies & Cunningham, 2009, 2012; Paradies et al., 2008), which suggests that the basis for distrust is ongoing.

Distrust towards non-Indigenous people, as identified in this study, may diminish the likelihood of non-Indigenous engagement having a positive effect on health behaviours. In light of the association between distrust and contemporary racism, investigating Indigenous community members’ distrust towards health-promoting initiatives may be enlightening, as distrust may hamper the reception of both health-promoting messages targeting health risk behaviours and health-promoting initiatives conducted by non-Indigenous people.

**Social resistance**

Several of the factors identified as influencing health behaviours (specifically racism, discrimination, a history of subjugation, and distrust towards members of the dominant group) are indicative of the tension stemming from being a member of a minority cultural group that is marginalised by the practices and attitudes of the dominant group.
Prior research involving African Americans, a non-dominant minority group in the United States, identified an association between experiencing discrimination and elevated levels of social resistance, as measured by a survey based on the UNhealthy-RESisTance (UNREST) questionnaire (Factor, Williams, et al., 2013); it was reported that participants with elevated levels of social resistance were more likely to engage in health risk behaviours such as smoking, poor nutrition, and misuse of alcohol and other drugs (Factor, Williams, et al., 2013). The discourse concerning social resistance strongly suggests that members of non-dominant minority groups may be actively engaging in health risk behaviours, consciously or unconsciously, as everyday acts of social resistance against the dominant group (Factor, et al., 2011; Factor, Mahalel, Rafaeli, & Williams, 2013; Factor, Williams, et al., 2013).

While the effect of social resistance has not previously been considered in the context of Indigenous Australians’ health behaviour, there are grounds for including it as a factor in a model of health behaviour. Social resistance may occur when racism and discrimination disrupts associations between discrete cultural groups (Factor, Williams, et al., 2013); in light of this, social resistance is placed in the midstream section of the current model although it is acknowledged that other midstream factors such as distrust may also reinforce the level of social resistance and, therefore, its effect on health behaviour.

Future research examining social resistance in the Indigenous Australian context may provide insight into the motivations involved in health behaviour. Such research could incorporate the UNREST questionnaire, designed to capture the main concepts of the social resistance framework, including two scales for measuring everyday discrimination and alienation and a third scale for measuring social resistance (Factor, Williams, et al., 2013). Confirming that social resistance is a factor in Indigenous health
behaviour may prove enlightening for health promotion initiatives.

Advocates of social resistance theory suggest that general education strategies may not promote health behaviour in non-dominant minority groups because such behaviours are not necessarily linked to lack of knowledge but may be a passive expression of resistance to the dominant majority (Factor, Williams, et al., 2013). Such an explanation implies understandable defiance against an oppressive situation, and suggests that Indigenous health behaviour may be positively affected by changes to the social norms of the dominant majority. If this is correct, it reinforces the need to extinguish racism and discrimination, and mitigate their effects. The findings also support the relevance of initiatives to support and promote Indigenous culture and cultural priorities as strategies for encouraging positive health behaviour.

(Lack of) personal choice

In contrast to the models mentioned earlier, (lack of) personal choice is included in the current model, and midstream in recognition of the confounding effects of other factors and the emphasis placed upon this factor by community members. Participants indicated that other factors such as culture and racism affect their ability to choose for themselves. Social connections and the requirements involved to support the people they are connected with also impede their ability to choose: for instance, the obligation to provide food for relatives and to eat it with them may result in diabetics eating food that is inappropriate.

When considering health behaviours, both the importance of personal choice and the frustration caused by a lack of personal choice are highlighted in this research. Reilly et al. (2008) noted that being ‘in control’, which can be considered synonymous with personal choice, is very important to the health behaviour of Indigenous people. The
desire to control one’s circumstances may be exacerbated by the racism and discrimination experienced by Indigenous Australians, the confounding effects of which may, therefore, increase the significance they place on personal choice: certainly it has been determined that lack of control and feeling powerless are common reactions to racism (Paradies & Cunningham, 2012). It is also recognised that attempting to ‘live between two cultures’ can result in a perceived loss of control (Trudgen, 2000). Lack of control becomes more significant when it occurs in a number of circumstances, or when there is a perception that several situations are continually out of the control of the individual or group (Ryan & Deci, 2000), as appears to be the case for the participants in the present study.

**Psychological reactance**

In light of the importance Indigenous community members placed upon (lack of) personal choice, associated factors may also have an influence on health behaviour. One such influence may result from psychological reactance: the idea that people are inclined to discount persuasion because it is perceived to reduce their freedom to choose for themselves (Brehm, 1966). Psychological reactance may promote a negative reaction to advice regarding health behaviours, potentially invoking responses such as ‘don’t tell me what to do or how to live my life’ and a refusal to comply with suggested health behaviours. While psychological reactance is not specifically mentioned in the discourse on Indigenous health behaviour, Bond et al. (2012) noted that Indigenous Australians associated anti-smoking campaigns with the subjugation of Indigenous people; and that this perception instigated resistance to smoking cessation, rather than compliance, in a manner similar to that which is noted in psychological reactance discourse (Brehm, 1966). Such resistance may support the notion that psychological reactance influences the health behaviour choices of Indigenous Australians.
Psychological reactance is included in the midstream section of the current model in recognition that it may be influenced by racism, (lack of) personal choice and social resistance. Like the previously suggested associations between these three factors, these influences may exacerbate the influence of psychological reactance on Indigenous health behaviour. The continual discrimination and subjugation that is associated with racism may heighten Indigenous West Australians’ sensitivity to being told what to do and be perceived as an additional restriction on their ability to make their own choices, thereby leading to the perception of personal or group subjugation. Being denied self-determination may instigate psychological reactance in a similar manner to the instigation of social resistance. It may also imply a synergistic effect of psychological reactance and social resistance towards health initiatives that are considered to come from sources associated with an oppressive history.

**Psychological distress**

Like other models, the current research suggests that psychological distress influences the health behaviour of Indigenous West Australians. The distress caused by personal and family circumstances was cited as having a substantial impact on Indigenous community members’ ability to consider health behaviour. The level of distress was conveyed by emotionally charged responses to questions pertaining to health behaviour. Some participants demonstrated physical signs of distress, such as tears or angry outbursts. While psychological distress influences health behaviour, it is apparent that this distress is the product of upstream and other midstream factors; therefore, this item is positioned in the midstream section. This positioning is similar to the models discussed previously, with the exception of Berkman and Glass’s model (2000) where it is a downstream factor. Like several other studies (ABS, 2011h; ABS & Australian Institute of Health and Welfare, 2008; Paradies & Cunningham, 2012; Shepherd, Li,
Mitrou, & Zubrick, 2012), the current study highlights links between psychological distress, racism and health outcomes. While in the past the health outcomes mentioned were not always health behaviour, there are a number of studies that link elevated incidence of health risk behaviour with psychological distress (Paradies, 2006a; Wood et al., 2008).

Socio-economic circumstances
Socio-economic circumstances are positioned in the midstream section of the model. Although the Indigenous people in this study acknowledged that socio-economic circumstances affects their health behaviour by limiting their resources, they did not consider it to be particularly influential; further, their economic situations were affected by other factors such as racism and culture, which indicates that socio-economic circumstances is a midstream factor. This placement is similar to the models of Brunner and Marmot (1999) and Williams (1997); it differs from Turrell and Mathers (2000) and Berkman and Glass (2000), where it is an upstream factor. These differences may be a product of the innate complexity of describing the factors that affect health behaviour. Substantial research examining the health outcomes of Indigenous Australians confirms the association between socio-economic circumstances and health outcomes (Cunningham, 2010b; Cunningham et al., 2008; Sheperd, Li, & Zubrick, 2012; Shepherd, Li, & Zubrick, 2012; Zhao et al., 2013); however, little research examines the association between socio-economic circumstances and health behaviour.

Upstream section
The factors included in the upstream section have an influence on both the midstream and downstream sections. In the present study, the prominence placed upon racism, discrimination, history, and culture in the upstream section indicates that they are important influencers of the health behaviour of Indigenous people. This aligns with
Berkman and Glass’s (2000) and Williams’s (1997) models, in which racism and culture are also upstream factors. In contrast, Brunner and Marmot (1999) and Turrell and Mathers (2000) do not include racism in their models and refer to culture in an indirect manner. None of the models include history or discrimination. This difference may have been the yarning technique and PAR approach adopted in the current study allowed participants to voice their opinions freely and touch on topics that personally resonated most, which may be the reason for the prominent emergence of history and discrimination as key factors influencing Indigenous health behaviour.

**Culture**

As in other models, the upstream position of culture highlights the foundation that both Indigenous culture\(^6\) and cultural identity provide for Indigenous West Australians’ health behaviour. The influence of culture and cultural identity on midstream factors such as social interactions and socio-economic circumstances indicates that it should be positioned here: the conflict between work commitments and culturally based family obligations was cited as an example of how cultural expectations may influence socio-economic circumstances. The interactions between culture, cultural identity, socio-economic circumstances, and social interactions are indicative of the complexity inherent in modelling their influences on Indigenous health behaviour.

The importance placed on strong cultural identity is aligned to previous research that suggested that having a strong cultural identity is associated with better health and a lower likelihood of engaging in health risk behaviour (Dockery; 2010). Bond (2007) suggested that rather than being a variable conducive to positive health and health behaviours, Aboriginality (cultural identity) is synonymous with health and wellbeing.

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\(^6\) There is considerable diversity within the Australian Indigenous culture. For example, Nyoongar (a Western Australian group) practices differ from Koori (a New South Wales group) practices.
The identified significance of culture on health outcomes is gaining traction in many health contexts (Bond, 2007; Dockery, 2010; Priest, Mackean, Davis, Briggs, et al., 2012; Priest, Mackean, Davis, Waters, & Briggs, 2012).

The continual experience of racism and discrimination may polarise Indigenous people towards their own culture, in a manner similar to that theorised in social identity theories such as in-group (us)/out-group (them) theory (Brewer, 1979): that people develop strong links with a group they identify with and, conversely, develop strong prejudice against opposing groups (Brewer, 1979; Myers, 2007). This may indicate that racism and discrimination have a confounding effect on cultural identity.

In light of cultural polarisation, efforts to encourage positive health behaviour may benefit from focusing on Indigenous culture and cultural techniques rather than emulating non-Indigenous culture and techniques. This supports the growing assertion that a key task for health promotion efforts is cultural inclusivity (Brough et al., 2004; Priest, Mackean, Davis, Briggs, et al., 2012). This current research suggests that using non-Indigenous paradigms of health promotion may inadvertently produce neutral or negative (boomerang) effects, reinforcing health risk behaviours: a phenomenon previously cited as the detrimental outcome of a public health campaign involving non-Indigenous participants (Ringold, 2002).

**Racism and discrimination**

Racism is included in the current model in response to the emphasis community members placed upon the impact of racism and discrimination on health behaviour. This factor is placed in the upstream section in a similar manner to Berkman and Glass (2000) and Williams (1997). In addition to the influence of racism on health behaviour, it is evident that racism influences midstream factors including socio-economic
circumstances and social interactions. These were demonstrated in accounts of individuals quitting jobs because they could not cope with the racism in their workplaces; employment is a key measure of socio-economic circumstances and is shown to substantially influence socio-economic outcomes (ABS, 2011g). Similar accounts involving housing and other measures of socio-economic circumstances were also provided during data collection, indicating that racism is one of the precursors for distrust of non-Indigenous people, and may cause Indigenous people to feel reluctance to develop relationships with them. Racism was also cited as a direct barrier to building relationships with non-Indigenous people.

It is perceived that historical and contemporary racism and discrimination motivate engagement with health risk behaviours such as smoking, using illicit drugs, and over-consuming alcohol. The current study supports previous research indicating that Indigenous Australians’ mental and physical health outcomes are affected by the psychological distress associated with experiencing or witnessing acts of racism (Larson et al., 2007; Paradies & Cunningham, 2012; Priest, Paradies, Stewart, et al., 2011; Ziersch et al., 2011b); it also aligns with research that indicates racism against Indigenous Australians continues to be prevalent in Australia (Paradies et al., 2008; Priest, Paradies, Gunthorpe, et al., 2011).

The current research emphasises the necessity to prioritise efforts to extinguish racism and discrimination. While efforts are being made in this regard, this research highlights its persistence and its continued detrimental link with Indigenous health behaviour.

Chino and DeBruyn (2006) argued that initiatives aimed at promoting health must be empowering and relevant to Indigenous communities by reflecting Indigenous realities. On occasion this may be counter-intuitive to people who are more familiar with
traditional mainstream methods of promoting health. For instance, it may be viewed as unproductive to fund a centre for Indigenous people; however, the current research reiterates the centrality of culture to Indigenous people and to their health and their desire to prioritise their culture. Non-Indigenous groups providing facilities where Indigenous people can gather and share their cultural practices may demonstrate to them that Indigenous culture is valued and respected by the dominant majority.

Participants in the current study expressed the importance of incorporating cultural practices into their lives. They desired a place to be able to gather and share their culture and support each other. Browne et al. (2013; p. 26) stated that ‘Aboriginal organisations afforded indirect health benefits by providing a space to preserve and reproduce cultural capital’. This suggests that there are benefits derived from making space for Indigenous culture, and Bond (2007) supports the importance of culture by stating that Aboriginality (cultural identity) is synonymous with wellbeing.

History

Given the participants’ continual references to historical events (e.g., the Stolen Generation7) and their impact on health behaviour, history is included as a factor in the proposed model. The disadvantage associated with an oppressive history of colonisation and racism is becoming better recognised as a cause of Indigenous ill health (Paradies & Cunningham, 2012; Paradies et al., 2008; Priest, Paradies, Stewart, et al., 2011; Sheperd et al., 2012; Ziersch et al., 2011a, 2011b). Despite this, history has not been included in the models presented in Chapter 2. While it is accepted that racism could be considered a precursor to this oppressive history, in this instance the importance of Indigenous

7 The Stolen Generation ((also known as Stolen Children) refers to the children of Australian Aboriginal and Torres Strait Islander people who were forcibly removed from their families by Australian government agencies ((federal and state) and church missions, under legislation by their respective parliaments.
history warrants its acknowledgement in the upstream section of the model. In addition to the direct effects of history upon the health behaviour of Indigenous West Australians, it influences other upstream and midstream factors, including culture (in the upstream section) and socio-economic circumstances and distrust (midstream).

The influence of history on present Indigenous culture is obvious in this research. Numerous beliefs and traditions held by the community members had historical origins. The restriction on Indigenous people practising their traditions and interacting with their family members, imposed during the colonisation of Australia, was considered to have detracted from contemporary Indigenous culture and cultural practices. In particular, the legacy of the Stolen Generation involved loss of contact with family members and subsequent loss of traditions.

History may also affect several midstream factors, including socio-economic circumstances, distrust, social resistance, and social interactions. According to measures of socio-economic circumstance as outlined by the Australian Bureau of Statistics, depleted socio-economic circumstances have existed in many Indigenous families for several generations (ABS, 2011g; Zubrick et al., 2014). Breaking the cycle of deprivation is made more difficult by the psychological and circumstantial influence of their history (Parker et al., 2010). The colonisation of Australia involved oppressive measures and subjugation of Indigenous Australians (Muecke & Shoemaker, 2010; Smith, 2004), cited by participants as reasons for distrusting non-Indigenous people, may also promote social resistance. The influence of history on the social interactions of Indigenous West Australians is evident in historical events such as the Stolen Generation; the link between history and social interaction is entwined with Indigenous culture: these factors all appear to have had an effect on Indigenous health behaviour. The complexity of their interrelationships indicates the difficulties involved in
establishing the interactions and pathways that associate factors that affect health behaviour.

**Limitations**

The factors identified during the study as affecting Indigenous health may be outcomes of the research design. While this research was conducted using rigorous qualitative methodology, there were a number of unavoidable limitations. These included

- recruitment constraints caused by cultural protocols;
- sample composition and size;
- incentives to participate (including the financial reward associated with providing the Indigenous participants with a monetary gift); and
- reduced control over the direction of conversations in the data collection caused by the PAR approach and the yarning technique.

These limitations have been considered and reiterated several times in this thesis, and therefore only the most noteworthy ones will be mentioned again.

**Sample**

The Indigenous people who made up the sample for this study were from two urban Indigenous communities, but their socio-demographic characteristics are typical of a large subset of the Australian Indigenous population so that the views expressed throughout the study may have applicability to the wider Indigenous population despite their being a heterogeneous mixture of individuals and groups.

**PAR approach**

As a result of the PAR approach employed during engagement with the Indigenous communities, the direction of the research and data collection meetings were dictated by
the participants. Interview and focus group protocols were, however, used, designed to help guide discussions while attempting to ensure collaboration and cultural sensitivity. Despite the difficulties associated with the participants’ control over the data collection episodes, the process can also be considered an advantage of the research because it facilitated the emergence of factors that were of importance to the participants. The approach allowed for participant-directed discussions that produced answers to the research questions and enabled the explication of new findings in relation to Indigenous health behaviour.

**Qualitative methods**

Due to the qualitative nature of the study, the generalisability of the findings is limited. However, the credibility and validity of the themes were substantiated by the methodological and interpretive rigour employed throughout the study, and by the process of member checking and community consultation (as per Silverman, 2013). The findings are supported by previous studies in the area, and corroborate colloquial references to Indigenous health behaviours such as contemporary racism (Priest, Paradies, Gunthorpe, et al., 2011) and ongoing feelings of subjugation that are expressed in public forums.8

While the tenets of qualitative research suggest that results are not generalisable, there is probably some measure to which these results would be generalisable to other Indigenous groups. However, it is impossible to determine the extent to which they are generalizable. While the specific results may not be generalizable, the factors that were identified could be used as the basis for investigation into factors that may affect another Indigenous group. The factors that were identified in this study may be used to

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8 The candidate regularly attends public forums where Indigenous people deliver the opening address; they often refer to the subjugation of their people and loss of their land.
focus enquiry looking into the aspects that influence the health behaviour of Indigenous people in other countries. Particularly if the Indigenous groups in question have a similar collectivistic perspective outlook and prioritise family and their culture over themselves and people from other cultures. Further, these factors may be appropriate for focusing health promotion investigations and initiatives in such settings.

Obtaining data via focus groups and interviews exposes the process to bias caused by interaction between the participants and the interviewer. There is a propensity for people to maintain a public image, often answering questions in a manner that validates this image (Baumeister, 1982). These biases were minimised by engaging in a rapport-building process and by using the yarning technique (Bessarab & Ng’andu, 2010), which allowed conversations to flow freely and encouraged participants to forget the formality of the circumstances.

**Conclusion**

The (PAR) approach and qualitative methods included in this research reveal factors that influence Indigenous health behaviour and which are personally germane to members of two West Australian urban communities. It is ascertained that the Indigenous community members hold a culturally based perspective of health that is multi-dimensional and holistic. Factors relating to culture, racism, discrimination, history, social interactions, distrust, and personal choice are particularly noticeable influences on the health behaviour of the Indigenous West Australian community members. Findings emphasise that cultural and social norms affect social interactions and consequently reinforce their influence on health behaviour.

Despite the priority placed on cultural norms, personal choice is an important
motivational force. This juxtaposition emphasises the complexity of behavioural motivation. While it is challenging to capture the complexities of motivations that drive health behaviour (e.g., Hagger & Chatzisarantis, 2007; Ryan & Deci, 2007 as per self-determination theory), improving the understanding of the factors influencing Indigenous health behaviour may provide insight and direction both for health-promoting messages targeting health risk behaviours and for health-promoting initiatives relating to health risk behaviours. On occasion these may need to be disseminated in ways that are counter-intuitive to the usual non-Indigenous agendas and methods of conducting such initiatives. In particular, for the communities involved in this study, efforts to improve Indigenous health behaviour may include:

- using techniques and initiatives that address Indigenous realities and have an Indigenous cultural focus, thereby minimising the perception of non-Indigenous cultural bias;
- developing and reinforcing trust by building relationships premised upon respect and compassion;
- taking measures to reduce racism, discrimination, and marginalisation;
- addressing social support issues;
- utilising social connections and social support in health initiatives;
- always ensuring the inclusion of local Indigenous people in health promotion initiatives;
- providing space for Indigenous culture both physically and conceptually;
- empowering Indigenous people through self-determination; and
- working towards engagement that emphasises could rather than should framing to enhance feelings of personal choice.
It seems naive to assume that the motivations for health behaviours among Indigenous West Australians should be similar to those of their non-Indigenous counterparts. Providing physical and psychological space for Indigenous people to connect with their culture and increase their cultural identity appears to be a key component to improving their health behaviour. Ameliorating the effects of racism and discrimination may improve their trust in non-Indigenous people and initiatives and reduce the negative psychological effects caused by racism and discrimination, and may in turn have positive consequences for health behaviours. Health promotion initiatives aimed at Indigenous communities may be enhanced by exploring the implications outlined in this research. Future research investigating the impact of social resistance and psychological reactance on health promotion initiatives may produce greater understanding of hidden motivations for behaviours and behavioural change in relation to health among Indigenous community members.
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Appendices
A. Conceptual model of how social networks impact on health

Upstream Factors

Social Structural Conditions
- Culture:
  - Norms and values
  - Social cohesion
  - Racism
  - Sexism
  - Competition/cooperation
- Socio-economic factors:
  - Relations of production
  - Inequality
  - Discrimination
  - Conflict
  - Labour market structure
  - Poverty
- Politics:
  - Laws
  - Public policy
  - Differential political disenfranchisement/participation
  - Political culture
- Social changes:
  - Urbanisation
  - War/civil unrest
  - Economic depression

Social Networks (Mezzo)
- Condition the extent shape and nature of...

Psychosocial Mechanisms (Micro)
- Which provide opportunity for...

Social support:
- Instrumental and financial
- Informational
- Approval
- Emotional

Social influences:
- Constraining/ enabling influences on health behaviour
- Norms towards help-seeking/adherence
- Peer pressure
- Social comparison pressure

Social engagements:
- Physical/cognitive exercise
- Reinforcement of meaningful social roles
- Bonding/interpersonal attachment
- 'Handling' effects (children)
- 'Grooming' effects (adults)

Person to person contact:
- Close personal contact
- Intimate contact (sexual IDU, etc)

Access to resources & material goods:
- Jobs/ economic opportunity
- Access to healthcare
- Access to housing
- Human capital
- Referrals/ institutional contacts

Pathways

Health behavioural pathways:
- Smoking
- Alcohol consumption
- Diet
- Exercise
- Adherence to medical treatments
- Help-seeking behaviour

Psychological pathways:
- Self-efficacy
- Self-esteem
- Coping effectiveness
- Depression/distress
- Sense of well-being

Physiologic pathways:
- HPA axis response
- Allostatic load
- Immune system function
- Cardiovascular reactivity
- Cardiopulmonary fitness
- Transmission of infectious disease

Source: Berkman & Glass (2000), p. 143
B. Framework of socioeconomic health determinants

C. Social determinants of health

Source: Brunner & Marmot (1999) p. 20
D. A framework for the study of the role of race in health

E. Letter of support: The South West Aboriginal Medical Service

Pippa Waterworth
School of Sport Science, Exercise and Health
M408
The University of Western Australia
35 Stirling Highway
Crawley WA 6009

Dear Pippa,

I am pleased to advise that the Board of the South West Aboriginal Medical Service (SWAMS) has given ‘in principle’ support to a collaboration regarding your research which will focus on the development of health messages with Aboriginal communities.

It was very interesting to review with you the research proposal when you visited SWAMS recently. The benefits to this organisation in the development and testing of different media and content that target the main burdens of chronic disease within the Aboriginal population in the southwest – respiratory illness, cardiovascular disease and diabetes – are obvious, and we are excited about the potential collaboration.

The Board of SWAMS is an elected and representative Board composed of Aboriginal community leaders from the electoral wards of the southwest, and thus represents a strong cross section of the patient base. It would be important to the Board that participation in the research was broadly geographically representative too, which we can certainly assist in ensuring.

I wish you well with further development of the proposal, and application for research ethics approval through the Aboriginal Health Council of Western Australia, of which SWAMS is an affiliate organisation.

Yours sincerely,

Dr Glen Power
Chief Executive Officer

4th July 2012

www.swams.com.au
F. Letter of support: Indigenous metropolitan community

SOLID WOMEN ABORIGINAL CORPORATION
2A South Lake Drive
South Lake 6164
Phone: 9417 2372

To whom it may concern,

RE: Development of Health Messages with Aboriginal Communities Project

We write in support of the Development of Health Messages with Aboriginal Communities Project.

The local Aboriginal community in the vicinity of South Lakes and surrounding suburbs supports this initiative, which we believe will be of benefit to our people. We understand that the messages will be developed with advice from members of our community and will be based upon our needs, which will make them special for us.

We have agreed to the project being carried out in our Community and we look forward to working with you to develop health messages that are relevant for our people.

Yours sincerely,

Elders of South Lake and Surrounding Suburbs
G. Letter of support: The South Lake Ottey Family & Neighbourhood Centre

Dear Pippa,

This letter is in support of the Development of Health Messages with Aboriginal Communities Project.

Our Centre supports this initiative because it will be looking at a very important aspect of health in an inclusive and sensitive manner. I understand that the project will be overseen by a committee, which includes people from the Ottey Family & Neighbourhood Centre, Solid Women Aboriginal Inc., and representatives of the local Aboriginal community. The project will give the local community the opportunity to be involved in developing health messages that are relevant to their needs and situation.

I give my permission for your team to use The south Lake Ottey Family & Neighbourhood Centre as the base for this study and I look forward to working with you.

Sincerely,

Maria Bakas-Booker,

Co-Ordinator, Family & Community Services.
Dear Associate Professor Rosenburg

RE: HREC Reference number: 380-12/2011

Project title: The development of theoretically guided health promotion messages with Aboriginal communities.

Thank you for submitting the above research project which was considered by the WAAHEC at its meeting held on 23rd January 2012.

I am pleased to advise that the WAAHEC has granted approval of this research project.

WAAHEC approval is granted from the 23rd January pending your agreement of the following conditions:

1. **Conditions**
   - Submit letters of support from services identified in Stage 1 who will be participating in the project once this is known.
   - Provide a report to the WAAHEC once Stage 1 has been completed.
   - The WAAHEC will be notified, giving reasons, if the project is discontinued before the expected date of completion.
   - The Coordinating Investigator will provide an annual report to the WAAHEC and at completion of the study in the specified format. This form can be found on the AHCWA website (www.ahcwa.org).
   - The approval for studies is for three years and the research should be commenced and completed within that period of time. Projects must be resubmitted if an extension of time is required.
• Copies of any publications that arise from this research are to be given to the WAAHEC prior to release.

2. Amendments

If there is an event requiring amendments to be submitted you should immediately contact ethics@ahcwa.org for advice.

Should you have any queries about the WAAHEC’s consideration of your project please contact ethics@ahcwa.org.

The WAAHEC wishes you every success in your research.

Kind regards

Chelsea Bellm

For Tammy Prouse

Chair, WAAHEC

2/2/12

This HREC is constituted and operates in accordance with the National Health and Medical Research Council’s (NHMRC) National Statement on Ethical Conduct in Human Research (2007), NHMRC and Universities Australia Australian Code for the Responsible Conduct of Research (2007) and the CPMP/ICH Note for Guidance on Good Clinical Practice. The process this HREC uses to review multi-centre research proposals has been certified by the NHMRC.
I. Ethics approval: University of Western Australia Human Research Ethics Committee

Our Ref: RA/4/1/5220

08 February 2012

Associate Professor Michael Rosenberg
Sport Science, Exercise & Health (School of)
MSDP: M408

Dear Professor Rosenberg,

HUMAN RESEARCH ETHICS OFFICE – RECOGNITION OF ETHICS APPROVAL FROM ANOTHER HUMAN RESEARCH ETHICS COMMITTEE

Projects: The development of theoretically guided health promotion messages with Aboriginal communities.

Thank you for your correspondence enclosing the necessary documents to facilitate recognition of the ethics approval for the above project granted by another Human Research Ethics Committee (HREC) registered with the National Health and Medical Research Council (NHMRC).

It is noted that you have ethics approval from WAHIEC, approval number 389 - 12/2011.

The UWA students and researchers identified as working on this project are:

UWA Researchers:

Name                      | Faculty / School                        | Role              
---------------------------|-----------------------------------------|-------------------
Associate Professor Michael Rosenberg | Sport Science, Exercise & Health (School of) | Chief Investigator
Associate Professor James Dinnock       | Sport Science, Exercise & Health (School of) | Co-Investigator
Assistant Professor Rebecca Graham     | Sport Science, Exercise & Health (School of) | Co-Investigator

Student(s): Philippa Waterworth - PhD - 20978845

Although The University of Western Australia reserves the right to subject any research involving its staff and students to its own ethics review process, in this case, the Human Research Ethics Office has recognised the existing approval of the external HREC. The project is exempt from ethics review at UWA and the involvement of the above-listed researchers has been authorised. Any conditions for the recognition of the external HREC's existing approval are listed below:

Special Conditions

None specified

You are reminded that it will be the responsibility of the approving HREC to ensure compliance with all ethics requirements and to monitor and report on the project. However, should any relevant ethics issues arise during the course of the project, you should inform the Human Research Ethics Office of The University of Western Australia.

If you have any queries, please do not hesitate to contact Kate Kik on (08) 6488 3703.

Please ensure that you quote the file reference – RA/4/1/5220 – and the associated project title in all future correspondence.

Yours sincerely,
PARTICIPANT INFORMATION SHEET
Aboriginal health risk behavior: Investigating the opinions of people who support Aboriginal groups

What is the aim of this study?
This study aims to find out:

1. What barriers and motivations people working closely with Aboriginal groups think control health behaviour in the group(s) they are involved with.
2. Which health behaviours people working closely with Aboriginal groups consider to most influence the group(s) they are involved with.

Who does this study involve?
We would like to invite anyone who is working closely with at least one Aboriginal group or has relevant experience working with Aboriginal groups to be a part of this study.

What does this study involve?
 Participating in this study will involve a researcher interviewing you in person (or via phone if this is not possible), at a place of your choice, regarding your views about what influences Aboriginal health behaviour. The interview will take no longer than an hour. The participants will be given the opportunity to read the de-identified information and provide feedback to the researcher.

What if I decide I don't want to participate?
You don’t have to be involved. If you decide during the study that you don’t want to participate anymore, you can choose to withdraw at any time without prejudice.

What happens when the research is finished?
When the research is finished participants should have a greater understanding of what others within their field consider are key factors influencing health behaviour. The results will be used to inform a further study investigating health messaging relevant for Aboriginal groups, and will also be included in a PhD thesis, and the publications and conference presentations associated with that research.

What else do I need to know?
Your interview will be audio recorded so we can listen to it later on and make a written record. All your information is stored securely and no personal information will be released or used.

What if I have questions?
If you have any questions please contact Pippa Waterworth by email: pippa.waterworth@student.ualberta.ca or by phone on 0410325934, or Michael Rosenberg at The University of Western Australia via telephone on 08 6488 4654 or email: michael.rosenberg@uwa.edu.au.

This message has been approved by the Western Australian Aboriginal Health Ethics Committee, REF: 14-102511; and the University of Western Australia – Human Research Ethics Committee, REF: 2014/15220. The Human Research Ethics Committee at the University of Western Australia requires that all participants are informed that, if they have any complaint regarding the manner in which a research project is conducted, it may be given to the research supervisor/Associate Professor Michael Rosenberg, telephone number: 08 6488 4654 or, alternatively, to the Secretary, Human Research Ethics Committee, Registrar’s Office, University of Western Australia, 35 Stirling Highway, Crawley, WA 6009 (telephone: 08 6488 3793). All study participants will be provided with a copy of the Information Sheet and Consent Form for their personal records.
K. Participant information sheet: Exploring health behaviour with Aboriginal communities

PARTICIPANT INFORMATION SHEET
Exploring health behaviour with Aboriginal communities

What is the aim of this project?
This study aims to:

1. Identify attitudes and beliefs towards the health behaviour, and to examine the information using social psychological theory.

Who does this study involve?
We would like to invite any Aboriginal person living in [insert community], aged 18 years and over to be part of this project.

What does this study involve?
There are two parts to the project:

1. A researcher yarning with you regarding your views on what influences the things you do related to health behaviour
2. A meeting to talk about what was discovered

Each part will take no longer than an hour, and you do not have to be involved in every part of the project, just as many parts as you want.

What are the benefits in participating?

- You can have your say about health behaviour in a safe environment.
- You get to hear what other members of your mob feel and think about health behaviour.
- You will help to inform people about the health behaviour concerns of your family and friends
- It may help to improve the health outcomes of your family and friends
- You will get a gift voucher valued $30 every time you yarn with you
- You will get refreshments

What if I decide I don’t want to participate?
You don’t have to be involved. If you decide during the project that you don’t want to participate anymore, you can choose to withdraw at any time without prejudice.

What happens when the research is finished?
When the research is finished we will come back to yarn with the community about what they told us. This information will be published within academic journals and a thesis but no names will be used.

What else do I need to know?
Your involvement will be audio-recorded so we can listen to it later on and make a written record. All your information is stored securely and no personal information will be released or used.

What if I have questions?
If you have any questions please contact Philippa Waterworth by email philippa.waterworth@research.uwa.edu.au or by phone on 08 6488 4594, or Michael Rosenberg at The University of Western Australia via telephone on 6488 4654 or email michael.rosenberg@uwa.edu.au

This message has been approved by the Western Australian Aboriginal Health Ethics Committee, Ref. 3861/12/2011 and the University of Western Australia – Human Research Ethics Committee, Ref. RA/6018/20. The Human Research Ethics Committee at the University of Western Australia requires that all participants are informed that, if they have any complaint regarding the manner, in which a research project is conducted, it may be given to the research supervisor (Associate Professor Michael Rosenberg) telephone number (08) 6488 4654 or, alternatively, to the Secretary, Human Research Ethics Committee, Registrar’s Office, University of Western Australia, 35 Stirling Highway, Crawley, WA 6030 (telephone (08) 6488 3793). All study participants will be provided with a copy of the Information Sheet and Consent Form for their personal records.
L. Participant consent form: Investigating the opinions of people who support Aboriginal groups

PARTICIPANT CONSENT FORM
Aboriginal health risk behaviour: Investigating the opinions of people who support Aboriginal groups

- I have read and understood the information provided about the research or have had it explained to me in language I understand.
- I have taken up the invitation to ask any questions I may have had and am satisfied with the answers.
- I have been advised as to what type of data is being collected, what the purpose is and what will be done with the information when the research is finished.
- I understand that my participation in the project is entirely voluntary, and I consent to being involved.
- I understand I can withdraw at any time without reason and without prejudice, and that I can miss out questions at any stage without giving a reason.
- I understand that the interviews will be recorded but I can ask to halt the recording at any time without justification or prejudice.
- I understand that all the information I provide is treated as strictly confidential.
- I agree that information gathered for the study may be published provided my name or other identifying information is not used.
- I understand that I can contact the research team and request a summary of the key findings after the research has been completed.

Name: __________________________
Signed: _________________________
Date: ___________________________
M. Participant consent form: Exploring health behaviour with Aboriginal communities

PARTICIPANT CONSENT FORM
Exploring health behaviour with Aboriginal communities

1. The research has been explained to me and I have had the opportunity to ask questions about it.

2. I have been told what information is being collected, what the purpose is and what will be done with the information when the research is finished.

3. I consent to being involved in the research. I understand I can stop any time or miss out questions if I want to without giving a reason.

4. I understand that the sessions will be recorded but I can ask to pause the recording at any time without justification or prejudice.

5. I understand that all the information I give is strictly confidential.

6. I agree that information gathered for the study will be published but no names or identifying information will be used.

7. If I want to, I can obtain a copy of the report on the project in my community for information and to correct any mistakes.

Name: 

Signed: 

Date: 

This message has been approved by the Western Australian Aboriginal Health Ethics Committee, REF 358-12-2011 and the University of Western Australia – Human Research Ethics Committee. REF 1315-2010. The Human Research Ethics Committee at the University of Western Australia requires that all participants are informed that, if they have any complaint regarding the manner, in which a research project is conducted, it may be given to the research supervisor (Associate Professor Michael Rosenberg telephone number (08) 9480 4004) or, alternatively to the Secretary, Human Research Ethics Committee, Registrar’s Office, University of Western Australia, 35 Stirling Highway, Crawley, WA 6009 (telephone (08) 6488 3703). All study participants will be provided with a copy of the Information Sheet and Consent Form for their personal records.
N. Interview guide: Investigating the opinions of people who support Aboriginal groups

As mentioned earlier I would like to audio record the meeting to ensure accuracy. Although, all the information collected today will be treated strictly confidentially, if you give examples could you please refer to people by their first name only. However, I will de-identify the transcripts and no one will be identified by their name in any presentation or report arising from this research.

The information that we’ll obtain from you today is to inform further research directions on this topic.

Your participation is voluntary and you may withdraw from the discussion at any time if you feel uncomfortable about anything. And, is there anyone that is uncomfortable with the audio recording?

1. Can you begin by giving me a bit of background on your involvement with Aboriginal people
2. When you reflect on your interactions and experiences, what do you think is the most commonly encountered health risk behaviour?
3. When you reflect on your interactions and experiences, what do you think is the most detrimental health risk behaviour?
4. Why do you think this particularly one is so detrimental?
5. Do you think most people you have met, knew the health risks associated with the behaviour?
6. What about the other detrimental effects of the behaviour – were they aware of them?
7. What do you think prevents them from changing this behaviour?
8. What do you think would help them change it?
9. What do you think influences them to engage in these behaviours?
O. Focus group guide: Exploring health behaviour with Aboriginal communities

**Yarning about health behaviour.**

<table>
<thead>
<tr>
<th>Denise to introduce herself and me</th>
<th>Introduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduce the project and reasons for the focus group.</td>
<td></td>
</tr>
<tr>
<td>Focus group questions.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Show a photo of Bunbury.</th>
<th>General</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tell me 2 things about living in Bunbury</td>
<td></td>
</tr>
<tr>
<td>(ask each person)</td>
<td></td>
</tr>
<tr>
<td>Prompt: best and worst things about living here</td>
<td></td>
</tr>
<tr>
<td>Prompt: What do your friends and family like about living here?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Here are some pictures of people.</th>
<th>General Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fat, thin, smoking, drinking alcohol, exercising, watching tv,</td>
<td></td>
</tr>
<tr>
<td>eating junk food, old, eating fruit, ill, affluent (rich), working, angry, forgiving.</td>
<td></td>
</tr>
<tr>
<td>Which ones do you think look healthy?</td>
<td></td>
</tr>
<tr>
<td>Why do you see them as healthy?</td>
<td></td>
</tr>
<tr>
<td>Prompt: consider lifestyle, culture family, things you do with friends what do you associate with health and wellbeing.</td>
<td></td>
</tr>
<tr>
<td>Prompt: How would you describe good health?</td>
<td></td>
</tr>
</tbody>
</table>

| Describe healthy – draw a picture of the best healthy person |
| What does being healthy mean to you? |
| What things indicate success in health? |
| Prompt: does living to an old age – how old do you have to live to have success in health |
| What about not getting ill – what illnesses come to mind? |
| What parts of the physical environment are important to be | Specific health themes - attitudes |

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
</table>
Prompt: housing, restrictions on alcohol or smoking by government etc, parks, bike and walking tracks, sports facilities, gyms.

Put these in order of importance for health.

Owning a house, eating traditional foods, eating fast food, eating vegetables, eating fruit, smoking, drinking water, drinking alcohol, using drugs, regular health check-ups, taking medication, exercising, laughing, smiling, feeling good about yourself, working, housing, hunting & gathering traditional food, having a job, spending time with family, getting 8 hours sleep, not fighting with your family and friends, feeling safe, welfare, respect, forgiveness, pregnancy, education, stress, hereditary - family genes, family members, friends, self-control, government, self-determination, the system, tradition.

Are there any other things that should be added to the list, and where would they fit?

Where do these fit? – add history, colonialism, racism.

What prevents you from being healthy?

If you had a magic wand with 3 turns left. What would you fix from this list? – why? Ask each person.
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>If they do not pick health behaviours refocus on these.</td>
<td></td>
</tr>
<tr>
<td><strong>Focus on health behaviours:</strong></td>
<td></td>
</tr>
<tr>
<td>Where do they fit in the order? Magic wand and change.</td>
<td></td>
</tr>
<tr>
<td>If you could tell your family something about changing it;</td>
<td>Health behaviour</td>
</tr>
<tr>
<td>What would you tell them?</td>
<td></td>
</tr>
<tr>
<td>What practical things could be done to help them change it?</td>
<td></td>
</tr>
<tr>
<td>Why don’t you/they change things?</td>
<td></td>
</tr>
<tr>
<td>Who influences how you think and feel about these things?</td>
<td></td>
</tr>
</tbody>
</table>
P. Pre-focus group survey: Exploring health behaviour with Aboriginal communities

Your answers and experiences are important to us. Please tick the box that is closest to your situation or thoughts. It is ok to leave out any questions you feel uncomfortable answering. However, the answers will help us to understand the situation.

Questions.!!! (Please tick the answer that applies to you)

1. Are you currently experiencing... Diabetes [please tick appropriate box]
   - Cardiac disease
   - None of the above

2. How many of your living relatives have... Diabetes [please tick the appropriate box]
   - Most
   - Many
   - Few
   - None
   - None of the above

3. Which of the following best describes your cigarette smoking status? [please tick]
   - I smoke daily
   - I smoke occasionally
   - I don't smoke now but used to
   - I've tried it a few times but never smoked regularly
   - I've never smoked

This project has been approved by the Western Australian Aboriginal Health Ethics Committee (WA105507.12.2011). The University of Western Australia requires that all participants are informed that if they have any complaints or comments about the manner in which a particular project is conducted, it may be given to the research supervisor (Professor Michael Rosenberg, telephone number 08 6488 4644). The University of Western Australia (President’s Office, University of Western Australia, 35 Stirling Highway, Crawley, WA 6009) and the University of Western Australia (President’s Office, University of Western Australia, 35 Stirling Highway, Crawley, WA 6009) are the owners of the University of Western Australia. All study centres will provide a copy of the information view and consent form for their participant records.
4. On how many days of a week do you usually drink alcohol? (please circle)

0..........1........2........3........4........5........6........7

5. How many serves of fruit do you usually eat each day? A serve of fruit is equal to one medium piece, two small pieces of fruit or one cup of diced fruit.

Please write number ______________

On how many days during the last week did you eat at least two pieces of fruit? (circle)

0..........1........2........3........4........5........6........7

6. How many serves of vegetables do you usually eat each day? A serve of vegetables is equal to half a cup of cooked vegetables or 1 cup of salad.

Please write number ______________

On how many days during the last week did you eat 5 serves of vegetables? (circle)

0..........1........2........3........4........5........6........7

7. On how many days in the last week did you eat meals or snacks such as burgers, pizza, fried chicken or chips from places like McDonalds, Hungry Jacks, Pizza Hut or Red Rooster? (circle)

0..........1........2........3........4........5........6........7

8. How often do you drink sweet cool drinks? (please tick)

Daily ☐ Occasionally ☐ Never ☐
The next few questions are about the physical activity you did in the last week.

9. In the past week, on how many days have you walked for at least 30 minutes? This could be in 3 lots of 10 minutes. (circle)

0.........1...........2.........3...........4.........5.........6.........7

10. Excluding household chores or gardening, in the past week, on how many days did you do vigorous physical activity that made you breathe harder or puff and pant for at least 20 minutes? (e.g. jogging, cycling, football, netball, basketball). (circle)

0.........1...........2.........3.........4.........5.........6.........7

11. Excluding household chores or gardening, in the past week, on how many days did you do any other more moderate physical activities that you have not already mentioned for at least 30 minutes (e.g. gentle swimming, walking)? (circle)

0.........1...........2.........3.........4.........5.........6.........7

12. During the past 4 weeks, about how often did you feel: (please tick)
   a. Confident
      - All of the time ................................................................. [ ]
      - Most of the time .............................................................. [ ]
      - Some of the time .............................................................. [ ]
      - A little of the time ......................................................... [ ]
      - None of the time .............................................................. [ ]
   b. Loved by those who matter to you
      - All of the time ................................................................. [ ]
      - Most of the time .............................................................. [ ]
      - Some of the time .............................................................. [ ]
      - A little of the time ......................................................... [ ]
      - None of the time .............................................................. [ ]
c. Able to make up your own mind about things

- All of the time ......................................................... [ ]
- Most of the time ...................................................... [ ]
- Some of the time ....................................................... [ ]
- A little of the time ..................................................... [ ]
- None of the time ....................................................... [ ]

d. Interested in new things

- All of the time ......................................................... [ ]
- Most of the time ...................................................... [ ]
- Some of the time ....................................................... [ ]
- A little of the time ..................................................... [ ]
- None of the time ....................................................... [ ]

e. Sad, blue or depressed

- All of the time ......................................................... [ ]
- Most of the time ...................................................... [ ]
- Some of the time ....................................................... [ ]
- A little of the time ..................................................... [ ]
- None of the time ....................................................... [ ]

f. Hopeless

- All of the time ......................................................... [ ]
- Most of the time ...................................................... [ ]
- Some of the time ....................................................... [ ]
- A little of the time ..................................................... [ ]
- None of the time ....................................................... [ ]

g. Positive about the future

- All of the time ......................................................... [ ]
- Most of the time ...................................................... [ ]
- Some of the time ....................................................... [ ]
- A little of the time ..................................................... [ ]
- None of the time ....................................................... [ ]
h. Cheerful

All of the time ................................................... ☐
Most of the time .................................................. ☐
Some of the time ................................................... ☐
A little of the time ................................................. ☐
None of the time ................................................... ☐

Thank you.
Q. Factors affecting Indigneous West Australians’ health behavior:

Indigenous perspectives
Factors Affecting Indigenous West Australians’ Health Behavior: Indigenous Perspectives

Pippa Waterworth¹, James Dimmock¹, Melanie Pescud², Rebecca Braham¹, and Michael Rosenberg¹

Abstract
The factors driving the disparity in health outcomes between Indigenous and non-Indigenous Australians include socio-economic factors, racism, and history. The current study focused on exploring Indigenous participants’ perspectives of the factors that affect the health behavior of their community members. Participatory action research methodology and a grounded theory approach were utilized. In total, 120 members of two urban West Australian Indigenous communities participated in focus group discussions. There was substantial similarity between the themes that emerged within the discussions held in the two communities. Factors relating to culture, social connections, racism, communication, and personal aspects were particularly salient to health behavior of the participants. Several of the themes including culture, racism, communication, and distrust highlight the tension caused by being a member of a minority cultural group that has been marginalized by the practices and attitudes of the dominant cultural group. Personal choice was sometimes prioritized over health.

Keywords
health behavior; Indigenous Australians; participatory action research

Introduction
It is well established that Indigenous Australians suffer poorer health outcomes than their non-Indigenous peers (Australian Bureau of Statistics, 2012; Australian Institute of Health and Welfare, 2012). This is reflected in their shorter life expectancy (10.6 years less for men and 9.5 years less for women) in comparison with non-Indigenous Australians (Australian Bureau of Statistics, 2011). Indigenous Australians’ health and well-being are more likely to be disrupted by chronic diseases such as diabetes, renal disorders, and cardiovascular disease in comparison with their non-Indigenous counterparts (Australian Bureau of Statistics, 2011; Vos, Barker, Begg, Stanley, & Lopez, 2009). They are also more likely to experience higher levels of psychological distress, which has been associated with chronic health conditions (Cunningham & Paradies, 2012). In part, the disparities in health outcomes between Indigenous and non-Indigenous Australians may be attributed to the higher incidence of key health risk behaviors in the Indigenous population (Australian Institute of Health and Welfare, 2011; Booth & Carroll, 2005; Calabria, Doran, Vos, Shakeshaft, & Hall, 2010). These key behavioral risk factors include smoking, poor nutrition, misuse of alcohol and other drugs, and inadequate physical activity (Australian Institute of Health and Welfare, 2012; Booth & Carroll, 2005).

Despite their connection to health outcomes, the factors that influence the health risk behavior of Indigenous Australians are poorly understood (Carson, Dunbar, Chenhall, & Bailie, 2007). Studies suggest that colonization and the resulting introduction of health risk behaviors, such as smoking, promote engagement in some behaviors (Passey, Gale, & Sanson-Fisher, 2011; Wood, France, Hunt, Eades, & Slack-Smith, 2008). The social consequences of colonization also influence behavioral choices of Indigenous Australians (Alford & Muir, 2004; Hunter, 1993). The contemporary socio-economic circumstances of many Indigenous Australians and stress
associated with this and other aspects of daily life may exacerbate health risk behavior (Briggs, Lindorff, & Ivers, 2003; Wood et al., 2008). In light of the cultural emphasis on relationships, it has been identified that social networks may promote health risk behaviors such as smoking (Johnston & Thomas, 2008; Passey et al., 2011).

The continued disparity in health outcomes between Indigenous and non-Indigenous Australians indicates there may be factors influencing their health behavior that have yet to be identified and explicated. Greater emphasis on the Indigenous definition of health, which is multidimensional and holistic, is crucial for further understanding of this complex issue (Lock, 2007; National Aboriginal Health Strategy Working Party, 1989; Priest, Mackean, Davis, Briggs, & Waters, 2012). This involves seeking information directly from Indigenous people (Lock, 2007) and conducting research in collaboration with Indigenous groups (National Health and Medical Research Council, 2002; Priest et al., 2012). Priest et al. (2012) called for ongoing exploration of Indigenous perspectives of health and well-being spanning a range of populations across a variety of geographical locations. It has been suggested that utilizing a participatory action research (PAR) methodology and a grounded theory approach (as per Andronikidis & Lambrianidou, 2010; Bush, White, Kai, Rankin, & Bhopal, 2003; Roddy, Antoniak, Britton, Molyneux, & Lewis, 2006) to explore Indigenous perspectives of the factors that impact health could assist in identifying issues that may not be revealed by deductive investigation.

PAR methodology and grounded theory complement one another. PAR encourages participants to become actively involved in the research process (Lingard, Albert, & Levinson, 2005; Teram, Schachter, & Stalker, 2005). Subsequently, this supports the grounded theory approach by providing greater conceptual diversity during the inductive analysis (Bush et al., 2003). In addition, PAR’s collaborative approach empowers participants by affording them opportunities to advise and assist during the research process (Liamputtong, 2010). This approach shifts the balance of power from researcher to participants, which is considered essential for research involving Indigenous Australians (Fals-Borda, 2005; Kendall, Sunderland, Barnett, Nalder, & Matthews, 2011; National Health and Medical Research Council, 2002, 2003), thereby diminishing the likelihood that research will exacerbate the detrimental circumstances encountered by vulnerable and marginalized groups (Liamputtong, 2007).

The present study focused on exploring Indigenous participants’ perspectives of the factors that affect the health behavior of their community members. In recognition of the circumstances surrounding this population, the study used a combination of PAR methodology and a grounded theory approach. Members of two Western Australian Indigenous urban communities, one regional and one metropolitan, were involved to enable comparison of the factors that were identified within the different geographic locations.

**Method**

The research was conducted using PAR methodology (as per van der Velde, Williamson, & Ogilvie, 2009), in conjunction with a constructivist grounded theory approach (Charmaz, 2000; Schwandt, 2000). The PAR methodological approach used within the research included collaboration and consultation with the communities involved in the study. These community members and the participants involved in the study were considered co-researchers. In particular, a number of community members became involved in the whole research process, as research assistants or members of advisory committees that guided each step of the process, while others were involved in discrete portions of the process. All participants were actively involved in directing the focus of the discussions held during meetings and providing advice, and insight into the emergent themes that arose from the discussions. This entailed multiple visits to the community, with time spent talking to community members, reflecting on the progress, and listening to feedback before reinforcing the findings. This meant there was considerable reflection on the information provided before the concepts were developed. This approach transferred the control of the research to the community members and, in doing so, empowered them. Emancipation through actions and acquisition of knowledge is a key component of the PAR approach (Baum, MacDougall, & Smith, 2006; Fals-Borda, 2005). Using a constructivist grounded theory approach allowed understanding to be developed mutually by the participants and researchers within the social, cultural, and historical context of the communities involved. This approach encouraged collaboration with and empowerment of participants, which is a key component of the PAR methodology.

The engagement with community members was conducted in a culturally appropriate format, in accordance with Australian National Health and Medical Research Council principles (National Health and Medical Research Council, 2002, 2003). Prior to commencement of the research, the lead researcher (P.W.) consulted key community members, and gained written support from the elders (leaders) and organizations working within the communities. Once support and advice were obtained, an advisory committee was convened within each community. These committees comprised elders and respected community members who provided advice and guidance throughout the study. They were actively involved in discussions...
concerning how to conduct the research and interpret the data, and conducting the focus groups. For example, the researchers collaborated with the committees to develop focus group questions and protocols. This included devising stimulus material to start participants thinking about the topic under investigation. Two members of each community were employed to assist with the research.

Participants
The study was conducted within two Western Australian Indigenous communities, one regional and one metropolitan. The Indigenous people living in these areas live dispersed among non-Indigenous population. In total, 120 members of the two West Australian Indigenous communities participated in the study. For comparative purposes, demographic information for Indigenous, non-Indigenous, and the study sample is presented in Table 1.

Recruitment
In keeping with the PAR methodology and culturally appropriate engagement, the recruitment process was guided by the advisory committees and conducted by the community research assistants. This process began with the committee members providing a list of community members who they felt should be approached regarding participation in the study. The invitation to participate was disseminated through the community via a snowball method (Streeton, Cooke, & Campbell, 2004), where those invited were asked to pass the invitation on to others. To further ensure inclusivity, flyers that explained the study and invited participation were distributed within the community. The advisory committees guided the development of the flyers and their distribution. Under guidance from the advisory committees, the community research assistants recruited participants by personally approaching members of the community. They explained the parameters of the study and stated that participants would receive AUS$30 (US$23) to compensate for their time and travel costs.

Procedure
The data collection involved 11 focus groups conducted within Western Australia: 6 were conducted in a Metropolitan center and 5 in a regional town. On average, there were 8 to 10 people in each focus group. However, 1 focus group had 32 participants due the cultural nuances surrounding the recruitment of Indigenous community members, whereby it is common for all adult family members to attend such events. The sessions were conducted by a non-Indigenous researcher in conjunction with community research assistants and elders from the advisory committees. The discussions were semi-structured, being directed by broad questions. Examples of questions posed to the participants included “What does being healthy mean to you?” and “What prevents you from being healthy?” Health-related images were used as prompts during the sessions; examples of these included caricatures of people participating in healthy and unhealthy behaviors. The sessions involved yarning, which produced a free flowing discussion that was primarily controlled by the participants (as per Bessarab & Ng’andu, 2010). Yarning

Table 1. Sample and Community Demographic Characteristics.

<table>
<thead>
<tr>
<th></th>
<th>Metropolitan Population</th>
<th>Regional Population</th>
<th>Study Sample</th>
<th>Study Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Indigenous</td>
<td>Non-Indigenous</td>
<td>Study Sample</td>
<td>Indigenous</td>
</tr>
<tr>
<td>Average number of people in the household</td>
<td>2.9</td>
<td>2.6</td>
<td>—</td>
<td>3.2</td>
</tr>
<tr>
<td>Average children per family</td>
<td>2.6</td>
<td>1.7</td>
<td>—</td>
<td>2.8</td>
</tr>
<tr>
<td>Median weekly household income (AUS)</td>
<td>753</td>
<td>1,606</td>
<td>—</td>
<td>958</td>
</tr>
<tr>
<td>Median weekly rent (AUS)</td>
<td>170</td>
<td>340</td>
<td>—</td>
<td>200</td>
</tr>
<tr>
<td>Median monthly mortgage (AUS)</td>
<td>3,467</td>
<td>2,200</td>
<td>—</td>
<td>1,733</td>
</tr>
<tr>
<td>Not in the labor force (%)</td>
<td>35</td>
<td>10</td>
<td>—</td>
<td>33.4</td>
</tr>
<tr>
<td>Proportion of population by age and gender (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;15 years</td>
<td>33.6</td>
<td>13.4</td>
<td>0</td>
<td>31.8</td>
</tr>
<tr>
<td>15–24 years</td>
<td>22.4</td>
<td>17.1</td>
<td>26</td>
<td>21.3</td>
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<td>25–54 years</td>
<td>33.9</td>
<td>42.6</td>
<td>60</td>
<td>36.6</td>
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<tr>
<td>54+</td>
<td>9.9</td>
<td>26.9</td>
<td>14</td>
<td>10.3</td>
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<tr>
<td>Proportion of females in the population (%)</td>
<td>47</td>
<td>51</td>
<td>70</td>
<td>51.4</td>
</tr>
</tbody>
</table>

Note. The ABS include suburbs that were not represented in the study. In light of the differences in distribution of the populations, ABS recommends caution when comparing Indigenous and non-Indigenous statistics. ABS = Australian Bureau of Statistics.
is an Indigenous Australian traditional style of conversation that involves sharing stories and, therefore, may illuminate knowledge that might be missed when using more structured techniques (Bessarab & Ng’andu, 2010; Walker, Fredericks, Mills, & Anderson, 2014). The combination of procedures produced a wide and varied discussion. This enabled conversations relating to factors that influence health to emerge naturally, thereby ensuring that the information conveyed represented the salience of the issues to the participants rather than reflecting the assumptions of the researcher (as per Glaser & Strauss, 1967). The lead researcher also made field notes (as per Silverman, 2013). Demographic information was collected via a short survey that was administered to participants prior to commencement of the focus groups. Each focus group session took approximately 1 hour and was conducted at a public venue convenient and familiar to the participants. A local community center frequented by the members was used as a research base in the metropolitan community. The research was conducted using a local football club room and an Aboriginal corporation’s meeting room as the venues in the regional community. The study protocol was approved by the West Australian Aboriginal Health Ethics Committee and a University Human Research Ethics Committee.

**Analysis**

All focus groups were digitally recorded and transcribed verbatim. The transcripts were imported into NVivo 10 software, ensuring that the data from each location were stored and analyzed independently. The analysis began with the lead researcher repeatedly reading and re-reading the transcripts to immerse herself in the meaning of the content and to produce an empathetic understanding (as per Liamputtong, 2010; Maykut & Morehouse, 1994). This empathetic stance has been identified as contributing to the trustworthiness of analysis (Maykut & Morehouse, 1994). In conjunction, thematic analysis was conducted using a grounded theory approach as described by Glaser and Strauss (1967). This approach enabled a thematic analysis without the necessity to discover a core category and its associated properties (as per Pettigrew & Roberts, 2011). Coding and analysis were conducted using inductive procedures (as per Braun & Clarke, 2006; Glaser & Strauss, 1967). To enable the creation of a theory best fitted to the data, constant comparison was utilized. This method is appropriate when using a grounded approach (Bazely, 2007). Conceptual constructs were generated by a process of exhaustive textual analysis whereby line-by-line coding was used to assist with identification of key concepts (Corbin & Strauss, 2008). Inductive nodes were introduced throughout the coding process to incorporate the emergent concepts (Corbin & Strauss, 2008; Glaser & Strauss, 1967), and when necessary, previously coded data were recoded to incorporate emergent themes. Furthermore, all new data were compared with the emerging interpretations (Glaser & Strauss, 1967). The interpretations were compared with the field notes as a means of triangulation. The lead researcher’s diary notes were also an avenue of reflection regarding possible bias; the notes and the subsequent reflexive process contributed to methodological and interpretive rigor (as per Silverman, 2013).

An understanding of theoretical sensitivity underpinned the research teams’ ability to create a theory from the data by incorporating knowledge of relevant literature and theories with themes emerging from the data. Personal and work-related experiences also influenced the interpretation of data and subsequent development of theory (Glaser & Strauss 1967). The advisory committees were actively involved in the discussions regarding the themes that emerged.

The PAR methodology enabled the lead author, a non-Indigenous woman raised in New Zealand, to maintain a culturally appropriate stance throughout the research. Triangulation between members of the research team was also used, providing opportunity to examine different perspectives (as per Creswell & Miller, 2000). Member checking and consultation with the advisory committee and the wider community provided clarification of the themes and their respective importance, and acted as a form of analytical triangulation (as per Glaser & Strauss, 1967; Lincoln & Guba, 1985). Once it had been established that the themes were representative of the communities’ impressions, the themes from the two locations were compared and contrasted.

**Results**

Participants held a multi-dimensional and holistic perspective of health, with six broad themes regarding factors that influence health behavior emerging during the discussions: culture, socio-economic opportunities, racism, social connections, communication, and personal psychological factors (Figure 1). The flexibility afforded by the PAR research methodology allowed the research to be guided by the participants and encouraged conversations on a diverse range of factors that participants felt influenced the health behavior of Indigenous Australians. There was substantial similarity between the themes that emerged within the discussions held in the two communities. Further information regarding the themes, including supporting quotes, is outlined below.

**Culture**

Culture was considered an integral part of every aspect of Indigenous life. When discussing influences specifically
relating to health behavior, culture was a prominent factor; it was spoken about in a number of contexts including contemporary life, history, and self-awareness. Many of the comments indicated a link between psychological well-being and culture, which in turn affects their physical well-being. Within these contexts, several important components emerged: cultural identity, Indigenous language, and the protective effect of their culture:

Interviewer: What influences your health behavior?

It’s culture; it’s tradition; it’s identity; its being moorditj [Indigenous Australian word meaning strong], and knowing who you are, this is what is the most important when it comes to health things. (Group 2, regional)

Typically, when asked about influences on health, the conversations centered upon issues relating to cultural identity. From the discussions, it was clear that cultural identity was viewed as very important to Indigenous people and played a central role in personal identity and health. In some instances, participants seemed to use personal and cultural identity synonymously, indicating a crucial connection between the two. They indicated that having a strong cultural and personal identity enabled them to make healthy choices:

Aboriginal culture is a very strong part Noongar [Indigenous group] people’s identity and supports their health. (Group 2, regional)

Participants also made a clear distinction between their own culture and lifestyle, and that of non-Indigenous people. They perceived that Australian societal structures, including laws and policies, were based on non-Indigenous culture. This made policies and laws more appropriate for non-Indigenous people, which led to resentment over the cultural bias and the expectation that Indigenous people must adhere to them. The demarcation between Indigenous and non-Indigenous culture and society appeared to assist in perpetuating their Indigenous cultural identity. The challenge of living within two cultures and maintaining cultural integrity while embracing aspects of the non-Indigenous culture...
Qualitative Health Research

was often discussed. It was noted that differing opinions on how this should be resolved could lead to conflict and criticism:

They want to get us to live like White people live. They’ve got all these rules and regulations that go with it. It’s their [non-Indigenous] law and ways, it’s not ours. Aboriginal law and way of living is different. (Group 3, metro)

We socialized with Whitefellas as well as our own race. Then we get criticized for socializing the Whitefellas. (Group 1, regional)

Most participants considered the Indigenous language was a crucial component of their cultural identity and therefore their health. Although most held this view, many of them only knew a few words of their language. The participants could not recall many people who spoke the language fluently. In light of the importance placed upon the language, the participants expressed regret that it was not commonly known or spoken. There was some resentment toward the historical restrictions that had been placed upon speaking the language and how this had caused the current loss. Many considered their language should be taught more comprehensively in schools and lamented that other languages seemed to take precedence over theirs, indicating that they felt their culture and language were marginalized:

My husband says we have lost our identity by not being taught the language. That’s a thing with the Aboriginal people, knowing where they come from, knowing who they are and their language. That’s all very important for their health. (Group 2, regional)

In the old days my grandfather was told not to speak the language. This is what the White people have done to us. No, you are not allowed. That is no more your language. (Group 1, regional)

According to participants, cultural practices conveyed a “protective effect” on health, most especially, physical health. It was noted that learning about their culture, traditional beliefs, and language enhanced their sense of identity, which promoted self-esteem and respect for themselves and others. This was emphasized by references regarding a connection between reduced participation in cultural ways and participation in unhealthy and socially inappropriate behavior. Traditional practices, such as bush tucker, drinking water, and walking, were considered a more healthy way of life. This was supported by references to older relatives not having the common diseases of contemporary Indigenous people:

Culture and the old ways are slowly being lost. A lot of the young fellas today are drug addicts, thieves, in and out of jail or alcoholics because they don’t know the old ways. (Group 3, metro)

The damper, kangaroo meat, and rabbit we lived on were healthy and we were healthy. (Group 2, regional)

Many of our old people never had diabetes. Diets and that’s changed, yeah. We exercised a lot by walking everywhere. They also drank plenty of water. Then soft drinks and alcohol come in and we drink it with everybody else but our bodies can’t take it. (Group 2, metro)

**Socio-Economic Opportunities**

Circumstances related to the socio-economic situation of community members were often cited as compromising healthy living and healthy behavior. This included unemployment, inadequate housing, impact of the justice system and incarceration, and unsuitable public facilities and programs. These circumstances often had physical, emotional, and psychological ramifications. For example, unemployment limited financial resources, diminished self-esteem, and promoted health risk behavior such as alcohol consumption:

No jobs, especially for Aboriginal kids. They go for a job and get knocked back. Then there is nothing else to do except join in the drinking. (Group 1, regional)

If we could have employment for everyone it would build everyone’s self-esteem, put money in their pockets and they wouldn’t have to rely on welfare. (Group 3, metro)

A lot of people, they don’t have a healthy house to live in. (Group 3, regional)

The importance of facilities catering specifically for Indigenous people was emphasized. Participants from the regional community acknowledged the importance of the organizations that catered solely for the needs of Indigenous people within their community (including an Aboriginal Medical Service). This theme was supported by members of the metropolitan community who noted that lack of medical facilities dedicated to Indigenous needs was detrimental to the health of their people. They mentioned that some Indigenous people felt uncomfortable seeking help from non-Indigenous medical professionals:

We have a really good Aboriginal Medical Services. We can go to them to get help. (Group 4, regional)

They’ve got a school there, which is positive. They teach Noongar kiddies the language, the history and stuff, so that gives them self-confidence to grow up, and deal with issues
and take pride in themselves, which is good for their health. (Group 5, regional)

We haven’t got anything down here [Indigenous health facilities]. We need one somewhere close to us. (Group 5, metro)

Blackfellas are too shamed to go in to a normal doctor, they [Australian government] need to get more health centers for Aboriginal people so they’re not so shamed to go in to the doctors and talk about their health issues. (Group 1, metro)

Many participants expressed the need for a facility, such as a community center, where community members could meet together. They spoke of the necessity to have somewhere to teach their culture and traditional practices, including cooking, art, and language. Such a facility was considered essential to the physical and mental well-being of individuals by providing a place to meet others socially and to enable people to seek out therapeutic support from Indigenous people:

We need our own community center so we can come have meetings and come together to chat and help each other. (Group 4, regional)

We need a center where we can have a support group for Aboriginal women to sit and talk about our problems, like grieving if you’ve lost someone very close to you, there’s a lot of pain; to sit down and talk about that in our own center would help. (Group 2, metro)

If we had our own Aboriginal center things would be different, ’cause we can bring all our stuff to that center, cook our food, and learn our ways. (Group 6, metro)

Racism

Many participants thought that the effects of historical racism affected the physical and psychological health of community members. Australian Indigenous history that includes colonization and attempts to assimilate Indigenous people into non-Indigenous society was considered to have a substantial impact on the outlook and behavior of Indigenous people. There were numerous comments indicating that the knowledge of their traumatic history was prominent and influential. It appeared that the psychological burden of this was perpetuated by recounting these events. The impact of this was exacerbated by the connections between Indigenous people, which made the perceived distress more personal. It was expressed that this made it very difficult to move on from the past:

Aboriginals’ pasts are a real burden that comes upon their shoulders because they grow up with those words in their ear—it’s disturbing. (Group 1, metro)

There was also resentment regarding the historical treatment and the current ramifications of it, such as loss of cultural practices and language. Many participants appeared frustrated by the manner in which Indigenous people were treated. Some considered the current Australian government to be responsible for the historical events. In addition, many participants felt the government had not properly acknowledged or compensated them for their role in Indigenous history:

The government wanted to get Noongars off the reserves and out of the bush so they offered them the citizenship rights. You had to give up your family, your language; you had to be like a Whitefella. And not only that they took the kids away. They grew up in missions—that’s colonialism, history, government, and racism. That was all there. In the early years the government tried to breed us out. All these things have an impact on our health. (Group 2, regional)

We weren’t considered to be people back in them days we was animals and flowers—Flora and fauna. (Group 1, metro)

Why are other nationalities accepted and not Aboriginal people? Are we not good enough, but it was good enough for them to steal our land. So that’s the thank you they [Australian Government] give to the Aboriginal people. (Group 1, metro)

In addition, several health risk behaviors were introduced to Indigenous life by the colonizing people. It was considered these behaviors reduced the inclination for traditional Indigenous behaviors, such as hunting for food:

The Whitefellas put some pretty terrible things on us, gave us alcohol, sugar, tobacco for smoking. In the olden days we had our food from the bush. You had to go and get yourself, hunt for your food. Now, it’s easier to get fast food. (Group 5, metro)

Most participants felt racism was common in contemporary society and had a substantial affect upon their lives. This included racist comments and language, and discriminatory actions. Several participants noted they changed their social or employment circumstances in light of being subjected to racism. Sometimes, discriminatory acts prevented or discouraged Indigenous people from participating in healthy activities and obtaining health information. The racism was considered pervasive and, therefore, a barrier that prevented interactions and friendship between Indigenous and non-Indigenous people:

The kids have an issue at the skate park; they [non-Indigenous] don’t like us coming there. The other kids going there, they tell our kids they’re not welcome. (Group 5, regional)
Where I was working there was a lot of racism, people saying stuff and I couldn’t take it so I walked out. (Group 4, regional)

I go in the chemist and the security guards are watching. I go to the shop regularly, and they know I don’t steal but they follow me around because I’m Black. They paint us all with the same brush. (Group 1, metro)

Social Connections

The extended family system or kinship connections were significant to many aspects of Indigenous life, including health behavior. Participants expressed the cultural and personal importance of family connections and the loyalty that they felt toward family members, even distant ones. The kinship system developed strong ties with a large number of people, which meant there was potential for many people to provide guidance and act as role models. The opportunity to obtain physical and psychological support was also increased by the extended family system. Conversely, the strong connections meant there was potential for influence from relatives that encouraged people into unhealthy behaviors. The loyalty extended to family members meant they supported each other in many ways. It was noted that this sometimes instigated conflict, which could be sustained over long periods and include many people:

It’s kinship, family members. That’s very important. I have a big family and we are all close. We support each other. (Group 4, regional)

With that family connection, the relatives take the responsibility off the young families by helping them. (Group 2, regional)

When one of the members of the family is sick, it doesn’t affect that one person but it affects the whole family. (Group 1, metro)

There’s a loyalty to family, which means you have an obligation give financial help and support regardless of how you feel about the situation. This can affect our health behavior. (Group 4, regional)

Health risk behavior was sometimes encouraged by social interactions, which sometimes involved peer pressure:

Peer pressure is big, being influenced into using drugs, alcohol, and smoking. It comes from family and friends. (Group 3, metro)

The boys will drink after work socializing and if you don’t join them in drinking, they give you a hard time. (Group 2, metro)

Communication

Effective communication was considered vital for informing and educating people about health. Participants preferred a personal approach where they spoke with someone they knew and trusted. They considered trust and respect essential for communication:

Clear communication is the key to everything. The difficulty is that it’s not clear because a lot of people chuck you a pamphlet [about health] that you can’t understand, rather than chatting with you. (Group 4, regional)

Participants expressed a lack of trust for government organizations and their representatives, which may prevent effective communication regarding healthy living. This also led to misunderstandings regarding preventive and intervention initiatives from government sources. This reluctance to trust appeared to be based on historical encounters. Some references indicated this distrust extended to include non-Indigenous people generally. Several situations were discussed that emphasized participants’ tendency to relate contemporary occurrences to historical events. This appeared to promote doubt regarding the credibility and suitability of the practices of some government departments and, consequently, their staff. Conversely, many participants remarked that they would trust Indigenous people because of the connections they had with each other. Trust was established because of an existing relationship with each other or an associate that knew both parties. This would often include familial or kinship associations. It was constantly reiterated that the key to effective communication was trust, which is developed by knowing a person:

If you get a [health] message from the government, you’re just going back to history, stolen generation. Are you going to start trusting a government organization, or the government, so to speak, when you’ve totally lost trust in them in the first place? It’s not going to happen. You’re going to be less likely to listen to it if it comes from the government, than if it comes from Aboriginal people. (Group 1, regional)

Welfare has no right to take the values of parenting away from us. You know they want White people to counsel my daughter. My daughter has never had anything to do with White people, only through school. How dare people come in and take our lives over! I mean in a way the Stolen Generation is continuing, isn’t it. (Group 6, metro)

You might not know the Blackfellas but somebody else will because we’re all kin, and then you can trust what they say; I just don’t trust Whitefellas. (Group 2, metro)
Personal Psychological Factors

Participants felt that personal attributes such as their identity and self-esteem were important to their outlook on life. It was intimated that there was a strong connection between self-perception and actions, especially in regard to health risk behaviors:

Identity is very important, I think you have to know who you are because people will tell you to do things [health behavior] but if you know who you are you won’t do the wrong thing. (Group 4, regional)

If you let issues affect you in a strong way it can destroy you but if you stand up and be strong and say “I know myself; I know who I am and I know my background, I know my present and my future,” it helps you to handle the issues. (Group 2, metro)

If you’re confident enough and your self-esteem is high enough then you don’t feel the need to be influenced. (Group 1, regional)

The importance of personal choice was emphasized constantly. It was reiterated within every discussion and conveyed through demonstrations and descriptions of participants’ actions and behaviors. For instance, when participants discovered they were not being offered watermelon and orange juice during meetings because their high sugar content was not healthy for diabetics, it was considered a violation of their right to choose. The participants discussed the importance of individuals having the opportunity to make their own decisions, regardless of the ramifications. The imposition felt when others attempted to influence or control their decisions extended into every context, including familial encounters:

Being given the chance to make your own choices is very important. (Group 1, metro)

I rang my niece because one of my cousins died. He was an alcoholic and my niece said, “Uncle I’ve been over there many times over the last 2 years telling him he’s got to stop the drink otherwise it will kill him.” He made the choice to keep on drinking and he died at the age of 42. For him, choosing for himself was very important. (Group 5, regional)

Many participants spoke of the psychological distress caused by circumstances they and their families were encountering. The level of their distress was supported by the strong emotions they sometimes conveyed through their conversations. Some participants cried or had angry outbursts while they shared their distressing situations. In other instances, participants left the meeting to have what they referred to as a “calming smoke” after engaging in conversation regarding their stressful circumstances (participants were reminded that counseling services were available if they required additional support after the meeting). Using health risk behaviors as stress relief and coping mechanisms was also mentioned by several participants:

It [marijuana] makes me feel good within myself. I could be stressed out and then have a smoke [marijuana] and it’s all gone. (Group 6, regional)

I’m just going to have a smoke, ’cause I’m stressed. (Group 1, metro)

Discussion

The PAR approach used within this study empowered the community members, giving them control over the research process. This resulted in the development of knowledge that was salient to the community members in regard to their health behavior. The process was emancipating, allowing the participants to address aspects that were important to them, rather than being directed to consider aspects that others felt should be important. In addition, by developing an understanding of the lived experience of the participants through yarning, this research endeavored to acknowledge the relevance and importance of traditional Indigenous ways of gaining and disseminating knowledge.

The research illuminated findings that suggest Indigenous Australians living in urban communities considered factors relating to culture, social connections, racism, communication, and personal aspects to be particularly salient to their health behavior. Several of the themes, including culture, racism, and communication, highlight the tension associated with being a member of a minority cultural group that has been marginalized by the practices and attitudes of the dominant cultural group.

A distinct and strong cultural identity emerged as a pervasive aspect of Indigenous life in the present study. The protective properties of Indigenous traditions and culture were often conveyed during conversations and had direct relevance to health behavior. The prominence and importance of culture and cultural identity with respect to health behavior were indicative of the participants’ holistic perspective of health and align with prior research (Kruske, Belton, Wardaguga, & Narjic, 2012; Priest et al., 2012). The emergence of this theme highlights the importance of cultural perspective when examining factors that affect health behavior. It also provides a caution regarding any attempts to explain the complexities involved in understanding the factors that influence health behavior of Indigenous Australians without having an Indigenous cultural perspective.
Social connections were considered very important within the Indigenous communities’ cultural perspective. Consequently, culture, social connections, and health behavior were linked in a complex manner. In particular, relationships, with family and kin, and the associated obligation involved in these relationships, significantly influenced health behavior. An aspect that seemed particularly important was the cultural obligation to distribute resources among family members; this potentially diminished personal resources and exacerbated socio-economic disadvantage. Prioritizing others’ needs before their own in this manner reduced community members’ capacity to maintain or improve personal health behavior. Such cultural obligations created a further layer of complexity regarding social dynamics that are not commonly experienced in non-Indigenous groups (Johnston & Thomas, 2008).

The priority placed upon cultural identity may be exacerbated by contemporary and historical racism including attempts to colonize and assimilate the Indigenous people into the non-Indigenous culture and subsequent acculturation. Retention of cultural characteristics (cultural identity) within a person’s social identity is an important component of the concept of self and considered one of the essential psychological protections against discrimination (Phinney, 1990). The importance of cultural identity in the face of discrimination and acculturation is well documented (Lee, 2003; Phinney, 1990). The connection between cultural identity and health is also beginning to become apparent (Priest et al., 2012). Moreover, previous Indigenous-led research suggests that rather than being a factor that supports health, Australian Aboriginity (cultural identity) is synonymous with health and well-being (Bond, 2007). This notion appears to be steeped in cultural understanding that may be difficult to convey or support using a non-Indigenous perspective.

Indigenous ways of knowing are complex and unique with a strong focus on the delivery of knowledge from Indigenous community members, especially elders who are held in the highest esteem for their cultural wisdom. Priest et al (2012) shed light on the link between Indigenous ways of knowing and perspectives on health and well-being whereby Indigenous knowing is comprised of oral storytelling, role modeling, physical and spiritual connection to country (the land), and art/artifacts. Each of these factors are perceived to promote health and well-being mainly via their promotion of social connectedness as the coming together of community members is central to the sharing of knowledge and traditional activities. Health behavior sits within the broader picture of health and well-being, and therefore, Indigenous ways of knowing are important factors influencing health behavior that must be considered in the design of initiatives targeting such behaviors.

Resistance to concepts or practices that stem from the non-Indigenous culture appeared to influence participants’ responses to social encounters and social norms. Research suggests such social resistance is a natural consequence of maintaining cultural identity in the presence of discrimination (Factor, Williams, & Kawachi, 2013). Social resistance theory involves people within non-dominant cultures demonstrating reluctance to incorporate the concepts and ideations of the dominant culture into their lives as an act of everyday resistance toward subjugation (Fordham & Ogbu, 1986). This theory has recent traction within the context of health, especially in research involving minority groups such as the African American people in the United States (Factor, Kawachi, & Williams, 2011; Factor et al., 2013). Given the sentiment expressed in the present study’s discussions, there appears to be grounds for considering the effect of social resistance within the context of the health behavior of Indigenous Australians. For instance, reluctance to respond to health messages or adopt health behaviors that appear to promote the dominant cultural perspective may be in part due to social resistance toward the dominant cultural group. Investigating the implications of social resistance may contribute to understanding Indigenous Australians’ health behavior and their responses to health-promotion initiatives.

Despite the cultural importance placed upon prioritizing the needs of family and kin, personal choice was also identified as having a strong influence on health behavior. Furthermore, participants sometimes prioritized personal choice above health-promoting behavior. A recent study into the factors that influence Indigenous Australians’ food choices referred to the freedom to choose (personal choice) as a form of autonomous control (Brimblecombe et al., 2014). Deci and Ryan (1985) theorized that the importance of personal choice often originates from the need to feel in control of personal circumstances and is a psychological priority. Lack of control becomes particularly significant when it occurs in a number of circumstances, or when there is a perception that several situations are beyond the control of the individual or group (Ryan & Deci, 2000). Depriving an individual or a group of their ability to control their circumstances can result in emotive reactions, including detrimental behaviors such as health risk behaviors (Ryan & Deci, 2007). Continual marginalization that may be encountered as a member of a minority culture could be perceived as lack of control over one’s circumstances, similar to the manner indicated within Deci and Ryan’s theory. Although research indicates resistance to health-promotion campaigns can occur for a range of reasons, including frustration, resentment, or pleasure, in this instance, the imperative to take up an alternative position may occur in response to the perceived lack of control in other areas of
their lives (Brehm, 1966; Factor et al., 2011; Gjernes, 2010). This response may be aligned with psychological reactance theory, which explains the inclination to reject concepts or communication because of the perception that they reduce a person’s freedom to choose for themselves (Brehm, 1966). Alternatively, the response may be aligned with the aforementioned social resistance theory involving resistance against embracing attitudes and beliefs of the dominant group (Factor et al., 2011; Factor et al., 2013; Fordham & Ogbo, 1986).

In the present study, there was consensus that effective communication was imperative to the encouragement of health-promoting behavior because it facilitated the gathering of information necessary for making informed choices. In some instances, distrust regarding the source of health information was a barrier to effective communication. This distrust often originated from historical racism and was perpetuated by contemporary racism. Distrust toward the State and the health care system has been referred to previously in the context of Indigenous smoking cessation, where it has been suggested that this barrier could be alleviated through relationships built on the premise of respect, care, commitment, and compassion (Bond, Brough, Spurling, & Hayman, 2012). The participants in the present study also mentioned that respect was important and fostered healthy relationships where communication was effective. Typically, the community members emphasized the importance of relational aspects such as trust and respect when considering the validity and credibility of information. There were multiple references to trusting Indigenous people and family members, and therefore, these people were considered appropriate for providing credible health information and role modeling of health behavior.

The impact of historical and contemporary racism, and the subsequent marginalization of Indigenous people were reported to have a pervasive influence on their lives and health behavior. This resonates with studies that report health risk behaviors are used as coping mechanisms in distressing situations, especially in relation to the experience of racism (Ziersch, Gallaher, Baum, & Bentley, 2011). Furthermore, studies indicate that high levels of distress are associated with physiological responses that expedite health problems such as cardiovascular disease and strokes (Hamer, Molloy, & Stamatakis, 2008; May et al., 2002). The notion that those who report experiencing racism and marginalization also report poorer health outcomes is gaining prominence within the health literature (Larson, Gillies, Howard, & Coffin, 2007; Paradies & Cunningham, 2012; Paradies, Harris, & Anderson, 2008; Priest, Paradies, Stewart, & Luke, 2011). This indicates the ongoing necessity to address racism and marginalization within Australian society. Consequently, the expectation to significantly change Indigenous health behavior and health outcomes without addressing the larger societal issues may be unachievable.

Facilities dedicated to the needs of the Indigenous population may assist in ameliorating the marginalization of urban communities such as those within this study. From their cultural perspective, the study participants considered such facilities were also important. They indicated benefits may include the ability to share in traditional activities (some of which provide health benefits) and gain support from one another. The intertwining of culture and health would indicate that supporting Indigenous culture may promote positive health behavior. Indeed, other Indigenous cultures, such as the Maori culture, place particular significance on their meeting places (maraes) and the associated health benefits including access to health promotion information and healthy lifestyle support programs (Simmons & Voyle, 2003). Furthermore, it is possible that the priority of a cultural meeting place may indicate a desire for a sense of belonging, or recognition by non-Indigenous Australians. Perhaps the most important benefit of such facilities would come from addressing marginalization by providing a space that prioritizes Indigenous people and empowers their choices.

Although a PAR methodology is recommended as appropriate for understanding the lived experiences of Indigenous participants, there are inherent challenges associated with this research process. Indigenous health research aimed at understanding health behavior using a PAR approach can be enlightening and empowering for Indigenous participants in their capacity as co-researchers. This empowerment must, however, be juxtaposed with the implication that such a process usually also involves a request to generate solutions regarding factors affecting suboptimal health behavior. One such factor is indeed the history of racism and marginalization; as the targets of racism, it may seem contradictory to request that Indigenous community members provide solutions to a situation they seemingly have limited control over.

Several topics that were addressed during the discussions generated heightened emotional responses. In particular, conversations concerning racism and discrimination were conveyed with a sense of the pain and suffering these issues caused the community members. Strong emotions were also conveyed regarding the perception that non-Indigenous people were judgmental toward Indigenous people and expected them to conform to non-Indigenous social norms. Conversely, conversations regarding culture caused animated and exuberant responses that conveyed the passion and positivity involved with this topic. The emotional content of these responses may appear unusual within the conventions associated with investigating health behavior from a non-Indigenous perspective.
Conclusion
In light of Priest et al.’s (2012) call for ongoing exploration of Indigenous perspectives of health and well-being, the present study has contributed to this need by providing evidence of social and cultural influences on health behavior. This research provided the opportunity to obtain enlightening information and insights into Indigenous peoples’ perspectives on their health behavior. In the process, the community members who participated expressed a sense of validation at the opportunity to voice their opinions. Gaining understanding of the factors that influence health behavior from the perspectives of Indigenous Australians may provide insight into aspects that might have been missed by other methods of investigation. Improving current understanding in this manner may provide insight and direction for health-promoting initiatives and messages targeting health risk behavior. However, this research indicates that to address the inequities in health behavior, there needs to be a shift in the social climate of Australia. Government initiatives such as “Closing the gap” that focus on health disparities may need to be accompanied by initiatives that target social attitudes to racism. From the current Indigenous perspective, providing space for Indigenous people to immerse themselves in their culture may enhance their future health behavior outcomes. This will also promote validation of Indigenous cultural traditions within mainstream society.

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References


Author Biographies

Pippa Waterworth, MSc, is a doctor of philosophy candidate at The University of Western Australia, Perth, Australia.

James Dimmock, PhD, is an associate professor at The University of Western Australia, Perth, Australia.

Melanie Pescud, PhD, is a research fellow at Australian National University, Canberra, Australia.

Rebecca Braham, PhD, is an associate professor at The University of Western Australia, Perth, Australia.

Michael Rosenberg, PhD, is an associate professor at The University of Western Australia, Perth, Australia.
R. The effect of social support on the health of Indigenous Australians

in a metropolitan community
The effect of social support on the health of Indigenous Australians in a metropolitan community

Pippa Waterworth, Michael Rosenberg, Rebecca Braham, Melanie Pescud, James Dimmock

1. Introduction

The current discrepancy between Indigenous and non-Indigenous Australians’ life expectancy (10.6 years for males and 9.5 years for females) is an ongoing issue and attributable to differences across a range of health outcomes, including chronic disease, disability, and injury (Australian Bureau of Statistics, 2012). Research indicates that a substantial portion of the health gap between the two groups can be attributed to social determinants (Anderson, 2007; Booth and Carroll, 2005). The World Health Organisation lists social gradient, stress, early life, social exclusion, work, unemployment, social support, addiction, food, and transport as the major social determinants that contribute to health status (Wilkinson and Marmot, 2003). While it is recognised that Indigenous Australians are affected by these determinants, particularly those related to high levels of unemployment (Australian Bureau of Statistics, 2011a; Carson et al., 2007), additional factors that influence this group include the effects of marginalisation, discrimination, and racism (Larson et al., 2007; Paradies and Cunningham, 2012; Priest et al., 2011; Ziersch et al., 2011a, 2011b). In addition, it has been suggested that government laws and policies may affect Indigenous people’s health status by reinforcing detrimental practices and attitudes (Hunter, 2000; Reynolds et al., 2007).

Theories and frameworks have been developed to illustrate the link between social determinants and health outcomes. They depict a multilevel structure involving three discrete yet closely interrelated levels: upstream, midstream, and downstream (Berkman and Glass, 2000; Carson et al., 2007; Turrell and Mathers, 2000; Williams, 1997). The upstream (macro-level) factors include the socioeconomic determinants of health and societal practices such as racism and discrimination. The midstream (intermediate level) factors include psychosocial aspects that pertain to the influence of social factors on an individual’s mind and behaviours. The
downstream (micro-level) factors include changes to physiological and biological functioning brought about as a consequence of influencing factors operating at other levels.

These conceptual frameworks indicate that midstream factors such as social support, defined as resources provided to people in the context of formal and informal helping relationships (Gottlieb and Bergen, 2010), can intervene in the causal flow between upstream factors and health outcomes (Berkman and Glass, 2000; Turrell and Matthews, 2000). Prior research indicates that social support can be examined within the broader context of social capital, which includes the processes that led to the support, the support itself, and the outcomes of the support (Carpiano, 2006). Alternatively, social support can be examined in a more discrete context where the focus centres on exploring the outcomes of the support (Carpiano, 2006; Croezen et al., 2010; Gottlieb and Bergen, 2010). These support resources include emotional support, intimacy, interactions, and tangible support (House et al., 1982). Social support usually originates from relationships made within an individual's social network (Gottlieb and Bergen, 2010). Therefore, the identification of these networks is paramount when investigating social support (Barrera, 1986). The relationships within an individual's social network are classified according to their level of association. According to Gottlieb and Bergen (2010), bonded relationships occur between intimate associates and, therefore, the individuals are usually from homogeneous backgrounds. In contrast, bridging relationships refer to associations between less intimately connected people, who stem from heterogeneous backgrounds (Gottlieb and Bergen, 2010). Bridging relationships provide opportunities to obtain information, advice, and practical assistance derived from a different perspective (Gottlieb and Bergen, 2010; Granovetter, 1973), which promotes psychologically and physically positive outcomes (McKenzie and Harpham, 2006). Support gained from bonded and bridging relationships has been reported in the literature focussing on the social capital of Indigenous Australians (Berry, 2009; Brough et al., 2007; Browne-Yung et al., 2013). However, this research has focused largely on the circumstances that instigated these relationships, rather than the social support they facilitated (Brough et al., 2006; Brough et al., 2007; Browne-Yung et al., 2013; Ziersch et al., 2009). Cultural identity and shared history promoted bonded relationships between Indigenous people (Brough et al., 2006; Browne-Yung et al., 2013), while discrimination and historical encounters acted as barriers to the formation of bridging relationships between Indigenous and non-Indigenous people (Brough et al., 2006; Browne-Yung et al., 2011). Although valuable from a social capital perspective, this does not thoroughly address the outcomes of the support; social support research focuses specifically on the support afforded by the relationships formed within a person's social network (Croezen et al., 2010; Richmond and Ross, 2008).

Research investigating the link between social support and health has mainly focused on the protective (positive) effect of social support in relation to mortality, chronic disease, disability, depressive symptoms, and wellbeing (Croezen et al., 2010, 2012; Iwasaki et al., 2005; Kawachi et al., 1996; Shaikh et al., 2008; Veenstra, 2000; Ziersch et al., 2009). Social support also affects health behaviors such as physical exercise and smoking (Croezen et al., 2012; Hunt et al., 2008; Shaikh et al., 2008; Uchino, 2006; Weitzman and Kawachi, 2000). In some circumstances, social support can have a negative effect (Croezen et al., 2012; Richmond and Ross, 2008), and in such instances, high levels of social support do not have a protective effect on health (Richmond et al., 2007). The potential for negative consequences from social support becomes more apparent in populations where stressful circumstances such as poverty or discrimination are prominent (Richmond and Ross, 2008).

The influence of social support within Indigenous Australian communities has not been thoroughly investigated. However, it has been established that connections between individuals are particularly important to Indigenous Australians (Brough et al., 2004; Hunt et al., 2008; Reilly et al., 2008). This often results in bonded connections to a large family and community network, which provides many resources and reinforces cultural identity (Bond, 2005; Brough et al., 2006; Browne-Yung et al., 2013). Historically, Indigenous Australians have been linked through a complex kinship system that supported family and social structure (Beckett, 1988; Smith, 2004). Past policies that led to forced separations have eroded these traditions, which in some areas have resulted in present day challenges to the strength of this culturally based system (Morissey et al., 2007). Nevertheless, the social world of Indigenous Australians revolves around the bonded relationships formed with extended family members, which serves as a basis for individual and social identity (Schwab, 1988). Social engagement with non-Indigenous people appears to be hindered by discrimination and perceptions of negative racial stereotypes (Brough et al., 2006; Browne-Yung et al., 2013), and high levels of interpersonal and systemic racism towards Indigenous Australians have been reported in numerous studies (for example Larson et al., 2007; Paradies and Cunningham, 2009; Priest et al., 2011; Ziersch et al., 2011a). Further, the historic conflict surrounding the colonisation of Australia that involved the non-Indigenous colonisers' systematic attempts to oppress and assimilate Indigenous Australians has left a legacy of social disruption and separation (Dudgeon et al., 2010; Hunter, 1993). These negative interactions have also served to reinforce Indigenous cultural identity and the importance of connections between Indigenous people (Brough et al., 2006).

The present study focused on exploring Indigenous Australians' impressions of their social network and social support using a combination of qualitative methods and Participatory Action Research methodology. The objective of the study was to identify the influence of social support on the health outcomes of Indigenous people within Western Australia.

2. Method

2.1. Methodology

Participatory Action Research (PAR) methodology was employed throughout the study because it empowers and emancipates participants and is recommended when engaging marginalised groups such as Indigenous people (van der Velde et al., 2009). The PAR process encompassed collaboration and consultation with the participants and members of the wider Indigenous community. This involved: a committee comprising eight elders (leaders) and respected community members, who provided guidance during the research; two female community members who acted as liaison people to assist with the study; and a community feedback and consultation meeting. Prior to the study, the liaison people had been involved in capacity building within the community and were respected and trusted by the participants. Qualitative methodology involving interviews was also used for data collection.

2.2. Community

The study was conducted within a metropolitan Indigenous community located in the south west suburbs of Perth, Western Australia. This community was approached because of prior associations with the researchers. The community was serviced by a multi-cultural community centre, which was well regarded by the Indigenous community and was very supportive and sympathetic to the needs of the local Indigenous people. This centre was
frequented by Indigenous community members and therefore was used as a research base. Within the study location, the Indigenous community lived among a variety of other ethnic groups (Australian Bureau of Statistics, 2011b). Table 1 provides demographic information on the study sample and those living in the south west suburbs of Perth.

### 2.3. Participants

Recruitment was conducted by the liaison people using their personal networks. To be eligible to participate, individuals had to meet the following criteria: (1) be recognised as an Indigenous member of their community by the liaison people and committee members, and (2) be over 18 years of age. Seventeen members of the community participated in the interviews. The participants were predominantly females over the age of 40 who were not in the labour force. There are some differences between the study sample and that of the community at large (e.g., age). This is a result of following culturally appropriate recruitment techniques that meant recruitment was controlled and conducted by liaison people in consultation with the committee members.

### 2.4. Procedure

Prior to commencement of the study, ethics approval was obtained from the Western Australian Aboriginal Health Ethics Committee and a University Human Research Ethics Committee. Written support for the study was provided by the elders of the community and the manager of the community centre involved in the study.

After providing informed consent, community members participated in individual interviews of approximately 60 min duration, which were digitally recorded and conducted at the community centre. The interviews were conducted in a yarning style (as per Bessarab and Ng’andu, 2010) with the aid of a semi-structured interview protocol that developed conversations around the topic of connections and health. Yarning promotes an informal relaxed discussion that takes the form of a journey visiting topics of interest to the participants and the researchers, and is based on trust and understanding (Bessarab and Ng’andu, 2010).

### 2.5. Analysis

The analysis process was based upon the phenomenological approach described by Creswell (2007). Prior to the analysis, the interviews were transcribed verbatim and the transcripts were imported into QSR NVivo10 (QSR International Pty Ltd, Australia). The analysis was conducted using an empathetic stance, which contributed to the trustworthiness of the interpretation (Maykut and Morehouse, 1994). The data were analysed thematically via inductive and inductive processes (Creswell, 2007; Maykut and Morehouse, 1994) while using a constant comparison process to ensure accuracy (Maykut and Morehouse, 1994; Strauss and Corbin, 1990). The PAR methodology enabled the lead author, a non-Indigenous woman raised and educated in New Zealand, to maintain a culturally appropriate stance and understanding throughout the process. The researcher’s field notes assisted reflection regarding possible bias; the notes and the subsequent reflexive process contributed to methodological and interpretive rigour (Silverman, 2013). Triangulation between members of the research team was also employed, providing opportunity to examine different perspectives (Creswell and Miller, 2000). This involved the researchers and liaison people examining the data and discussing the emergent themes. Member checking and committee consultation regarding themes were also performed to further confirm their validity (Creswell and Miller, 2000).

The data and the emergent themes were discussed with the committee in order to gain their opinions and advice. Subsequently, the themes were discussed at a combined member checking and community consultation meeting where the participants, their families, and the wider community had the opportunity to comment. This included formal discussion during the meeting and informal individual conversations afterwards.

### 3. Results

In all data collection episodes, participants reflected on their connections with people. The participatory action approach of the research and the yarning format used to conduct the discussions allowed the participants the freedom to discuss the aspects of these connections that they felt were most important. Due this format although health was the intended focus of the study some discussions meandered away from this topic and addressed social support more broadly. 

#### Table 1

<table>
<thead>
<tr>
<th>Sample and community demographic characteristics.</th>
<th>Indigenous</th>
<th>Non-Indigenous</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-family house (%)</td>
<td>5</td>
<td>1</td>
<td>–</td>
</tr>
<tr>
<td>Average number of people in the household</td>
<td>3.7</td>
<td>2.6</td>
<td>4.6</td>
</tr>
<tr>
<td>Average children per family</td>
<td>2.6</td>
<td>1.7</td>
<td>3.1</td>
</tr>
<tr>
<td>Median weekly household income (AUD)</td>
<td>1208</td>
<td>3061</td>
<td>–</td>
</tr>
<tr>
<td>Not in the labour force (%)</td>
<td>45.4</td>
<td>9.7*</td>
<td>50</td>
</tr>
<tr>
<td>Proportion of population by age and gender (%)</td>
<td>&lt;15 yrs</td>
<td>35</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>15–40 yrs</td>
<td>37</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>40+ yrs</td>
<td>28</td>
<td>27</td>
</tr>
<tr>
<td>Proportion of population by gender</td>
<td>&lt;15 yrs</td>
<td>40</td>
<td>60</td>
</tr>
</tbody>
</table>

Data was obtained from the Australian Bureau of Statistics (2011a, 2011b).

Note:  
1. The ABS statistics include suburbs that were not represented in the study.
2. In light of the differences in distribution of the populations, ABS recommends caution when comparing Indigenous and non-Indigenous statistics.

* ABS provided a figure for non-Indigenous labour force age 15 years and over.
3.1. Positive effects of social support from bonded relationships

Bonded relationships involving immediate family members such as partners, children, and parents were very important to the participants, and provided a substantial source of support for them. The majority of the participants had partners, and those that did, often reflected on the strong connection that they felt towards them. Participants also frequently mentioned that their partners provided a substantial source of support:

'We're one, we're married. We've been through a lot. We've got each other's back.' (51 year old female)

Several accounts of extended family members supporting each other through numerous difficult situations, such as illness, and financial hardship were commonly shared. The bonded relationships that formed between extended family members provided support for participants. For example:

'Cousins I get on pretty good with. I'm very close to one, I visit her often and ring her every day. She's always been there for me. When my brother died she was the one that was there. When I rang up, and cried, she was always there. When we needed money, I asked if I could borrow some and they just give me $400 without complaining.' (50 year old female)

3.2. Negative effects of social support produced by over-obligation and uni-directional support involving bonded relationships

In contrast to the positive effects of social support, there was also responsibility of care that arose from involvement in bonded relationships. Two women mentioned they acted as caregivers for their partners, one because her partner had a chronic disease and the other because her partner had a disability caused by an accident. Another participant stated that her husband had been her carer for many years when she was incapacitated due to an illness. Some of the participants were employed as carers for close relatives who were debilitated because of illness. Several others mentioned they provided intermittent care for their partners or other people who had a chronic illness or depression. For instance:

'Ver 90's, I was looking after him, he's a disability pensioner.' (51 year old female)

Most of the participants were involved with children from their current and previous partner(s), as well as with their current partner's children from other relationships. Several participants also mentioned being the primary caregivers for their grandchildren and for other people's children. As a consequence, in their older years when their own health concerns were likely to have increased, they were forced to place the needs of others before their own. One participant who had a 60 year old partner and was also the primary caregiver for two young grandchildren, reflected:

'We've got to start worrying about our own health. It's hard when we've got our grannies (grandchildren), we sort of brought 'em up since they were babies. With our grannies, we don't have time to do things for ourselves.' (49 year old female)

She mentioned that both she and her husband had been caring for their grandchildren since they were born because their daughter experienced a drug addiction that prevented her from caring for them. She mentioned she had also raised her ex-sister-in-law's child and cared for the child of another daughter while she recovered from post-natal depression.

It was often noted that grandparents were the primary caregivers for their grandchildren because their children were incapable of looking after them due to substance abuse and addiction, incarceration, or mental health problems:

'The middle daughter, her boy, we looked after him when she was in prison because he got sick. Child's not allowed to be sick in there.' (60 year old male)

One participant explained that she was not only caring for a partner with a chronic illness and depression that required her to care for him intermittently, but was also responsible for the care of her two teenage children and a three year old child of a distant relative. This highlights the substantial burden placed on some participants given their extensive family responsibilities:

'I wouldn't have my little girl, only her mother looked on Facebook and seen me talking to my family. She gave me my little girl when she was only four months old. The mother just wanted to smoke and do drugs and get drunk.' (51 year old female)

She also mentioned that the authorities asked her to care for the sibling of the child she already had because the mother was pregnant and still struggling with a drug addiction. She commented that she felt obliged to care for them because if she did not, they would be placed in government accommodation; once again highlighting the strong sense of responsibility felt by this group of participants, even for children outside their family.

Participants also shared stories of adult children that were causing them psychological distress due to substance abuse, physical or mental illness, illegal activities, and incarceration. Many participants mentioned at least one of their adult children who were involved in a stressful situation, some mentioned several. One participant spoke about her son who had a mental illness, and as a consequence, his behaviour was jeopardising their tenancy in their accommodation. In conjunction, another son who had recently been released from prison was forcibly apprehended in her home on suspicion of robbery. Another participant explained that both of her adult children were experiencing difficulties; one was in prison and the other regularly used illicit substance:

'The eldest one is on marijuana. It's destroying her. It's very worrying.' (49 year old female)

Participants often mentioned the stress and difficulties caused by the lifestyle of their extended family members. Sometimes there was also pressure to conform to the behaviour of others. Conversely, observing the behaviour of others caused some participants to reflect on the ramifications of others' choices and modify their own behaviour:

'I think seeing my dad was cruel to Mum it just turned me off. I think seeing all that I couldn't drink. We've got family members who drink; I've got three brothers and a sister who are alcoholics. You see a lot of abuse, violence.' (53 year old female)

3.3. Limited or inadequate social support caused by withdrawal from bonded relationships

Some participants chose to withdraw from extended family connections in order to protect themselves and their immediate
families. They did not want their extended family detrimentally influencing their immediate family members, or causing them physical or emotion harm. Several participants mentioned moving their immediate family away from their extended family in order to protect them from an environment they felt was unsatisfactory:

‘We moved because of domestic violence. Not as in my husband bashing me. It was my in-laws were physically and mentally abusive.’ (51 year old female)

Participants spoke about moving away from their extended families in order to avoid being involved in the lifestyle they were leading or observing the ramifications of these lifestyles:

“Watching them die of alcohol poisoning depressed me so I got out of it. Mainly heart attack and cancer in the liver, there were 24 deaths this year.” (42 year old female)

When participants moved away from their extended family, this fragmented kinship affiliations and reduced the opportunity to develop new bonded relationships. Participants originating from other parts of the country stated that they did not have many Indigenous friends. Although they did not verbalise why, it was inferred that it may be related to the participants being from another kinship group and therefore considered an outsider:

‘I’ve done aboriginal dancing with black fellas from over here but we sort of keep to ourselves because we’re Koori’s [an Indigenous group from another area].’ (48 year old male)

Several participants commented that problems with their physical and mental health acted as barriers to participation in activities because they restricted them from attending. This could contribute to participants becoming isolated from a wider network of people. When it occurs in conjunction with separation from extended family members there is substantial reduction in the availability of social connections.

‘There’s a group they got healthy things there. I haven’t been for a while because I was on one of my downers.’ (55 year old female)

3.4. Strong desire for connection

While commenting on their relationships and the support they provided, participants often spoke about the desire for connection and its importance. This meant it sometimes overrode consideration of other needs.

‘To me her first love is books. They give her pleasure, not me. Because when she’s reading I don’t have her attention. If she was an alcoholic at least I’ll have some sort of attention.’ (55 year old female)

The above mentioned mother, who isolated her children from their extended family in order to shield them from the family’s perceived detrimental influence, complained that her daughter’s love for reading books prevented the connection she desired. Although she sacrificed family connections to protect her children from harm, the need for connection with her children appeared to promote disregard for their safety. The mother could acknowledge the pleasure her daughter gained from reading and the deleterious effects of alcohol, but her comments indicated her need for connection overrode consideration for these issues.

3.5. Lack of social support from bridging relationships

There was considerably less emphasis placed on connections that would be considered bridging relationships. A few participants mentioned they developed friendships with people from outside their familial group. These friendships developed with work colleagues or people they met through activities. For instance, one participant mentioned she had developed a close group of friends through softball while another shared that she had developed friendships through her love of books.

Work colleagues rarely provided a source of friends and acquaintances. Only one third of the participants were employed, however, and therefore many of them did not have the opportunity to increase their social networks via this source. In conjunction, several of those were employed as paid caregivers for family members, which did not provide them with the opportunity to extend their social networks. The comments made by employed participants mostly indicated they had not established friendships with work colleagues.

Although workmates did not appear to develop into friends, workplace interactions may provide opportunities to breakdown preconceived ideas regarding racial groups. A male participant noted that through his work, his confidence increased. He attributed this to the acceptance he felt from his non-Indigenous colleagues. It also provided his workmates with the opportunity to re-evaluate racial stereotypes. Consequently, his positive experience at work had an empowering effect on him:

‘Meeting people through work, I thought a lot of people would reject me, being black. Especially working with white fellas you know and handling money and that, I thought things would happen, but no. I have keys to the shop and they trusted me with them. But you know you got to earn it with people ‘cos’ people look at you being black and they just sort of judge you; ever since I’ve been working I been good. Like what happened one time, they thought I was stealing petrol out of me own truck. Three blokes went around to my mates and said there’s a black fella around there knocking your petrol off. Lucky one of my friends got up to check it out. I was lucky really ‘cos’ it could have ended badly.’ (47 year old male)

This comment also highlights that Indigenous people sometimes feel they have to justify their trustworthiness because of the colour of their skin.

Few participants mentioned sports or other activities, and those that did rarely spoke of close connection with people from these groups. Conversely, participants’ involvement in health promoting events was more common. Although these groups were designed to promote healthy lifestyles, the participants felt they provided connections, friends, and support networks. These events provided the opportunity to participate in activities, gain social support, and develop friendships. One participant commented:

‘When I come to the centre to learn cooking, I made friends. I yarn with them.’ (56 year old female)

4. Discussion

This study explored social support among a community of Western Australian Indigenous people and showed that many participants shared large social networks. These networks mainly included bonded relationships with members of their family. The participants’ networks rarely incorporated people from outside
their Indigenous community, indicating a lack of bridging connections. It has been suggested that a well-developed social network needs to include bonded and bridging relationships in order to ensure adequate opportunities to receive support as well as provide support to others (Gottlieb and Bergen, 2010).

Indigenous Australian culture embraces a strong sense of community responsibility and kinship connection that emphasizes the importance of maintaining bonded relationships and the support associated with them. Family and community relationships are generally considered the basis of Indigenous Australian culture (McLennan and Khavarpour, 2004). Kinship relationships, originating from familial and community ties, and the sense of belonging to the Indigenous community have been described as the basis of their cultural identity (McLennan and Khavarpour, 2004). The juxtaposition of having a cultural identity that accentuates bonded relationships and the difficulties that are sometimes involved in maintaining these connections was emphasised throughout this study.

A high level of reciprocity between extended family members was an overly positive consequence of their bonded relationships. It was evident that participants felt a mutual obligation to achieve an equitable distribution of the resources at their disposal, which prevented cohesion and social structures such as bonding from developing fully (Gottlieb and Bergen, 2010). This concept of involvement in maintaining these connections was emphasised throughout this study.

Participants felt these associations afforded avenues to discuss their concerns, which was psychologically therapeutic. These findings are corroborated by other studies that indicated psychological and physical support was provided by bonded relationships between Indigenous Australians united through kinship systems (Brough et al., 2004; Browne-Yung et al., 2013; Dietsch et al., 2011; McCoy, 2008; Reilly et al., 2008). Similar positive outcomes of bonded relationships have been suggested within other Indigenous groups, such as American Indians (Hill, 2006). Physical and psychological support gained from relationships is considered a positive effect of social support that is reported to enhance wellbeing and health outcomes (Croezen et al., 2012; Kim et al., 2006; Lewis et al., 2012). In light of this, the kinship relationships mentioned in this study could be considered to assist positive health outcomes.

The current study highlights the detrimental effects of over-obligation due to large numbers of bonded relationships. Considering the participants within this study were predominantly older females, the results may indicate a greater burden of responsibility for this sector of the community. The situation was reinforced by the cultural emphasis on connection and kinship. This negative aspect of social support has been referred to previously within Australian Indigenous health (Ziersch et al., 2011a, 2011b), especially in the context of the kinship system exacerbating the situation (Browne-Yung et al., 2013). The current study supports the notion that the psychological and physical impact of these obligations was exacerbated by pre-existing disadvantages. These pre-existing disadvantages stem from the socioeconomic situation and discrimination, which highlights the effect of societal influences on the situation. Prior research involving Indigenous groups in Australia and internationally suggests that kinship connections can result in sharing the psychological and physical burdens of more people (Brough et al., 2004; Richmond and Ross, 2008).

In challenging situations, such as those created by poverty or discrimination, bonded relationships can have a detrimental effect upon individual's physical and psychological resources (Browne-Yung et al., 2013; Runovitch and Hodson, 1999; Mitchell and Mark, 2002; Richmond and Ross, 2008).

In several instances, participants also mentioned chronic illness or disability leading to unidirectional support. Unidirectional support is a potential source of over-obligation (Gottlieb and Bergen, 2010) with such a situation creating a negative aspect of social support (Mitchell and Mark, 2002; Murphy, 2008). In addition, psychological and physical over-obligation can also be viewed as a negative effect of social support (Mitchell and Mark, 2002). A Dutch study identified that high levels of negative social support were associated with detrimental health behaviours including smoking, physical inactivity, and excessive alcohol consumption (Croezen et al., 2012). It was apparent that the health outcomes of participants in the current study were also affected by the number of bonded relationships.

Some participants also mentioned withdrawing from kinship associations in order to protect themselves or their immediate family from detrimental behaviour and influences. By withdrawing from their kinship associations, participants were left without an adequate social network and perhaps social isolation, resulting in inadequate social support (Croezen et al., 2012). Withdrawing from family networks in order to promote health has been noted to cause isolation in other Indigenous groups (Richmond and Ross, 2008). In some instances, withdrawal from kinship groups was exacerbated by health issues that prevented participants from attending activities that could provide a source of social support. Corroborating these findings, previous work has identified an association between inadequate social support, social isolation, and poor health outcomes (Lysyam and Cowley, 2007; Melchior et al., 2003).

The social networks of participants rarely included bridging relationships that are typically forged with associates from work or acquaintances met through leisure, or social activities. In this study participants’ reported exposure to discrimination and racism within these activities suggesting that societal factors may prevent Indigenous people from accessing this type of social support. It has previously been mentioned that in the context of an oppressive history and continued racism and discrimination, bridging relationships often appear elusive to Indigenous Australians (Brough et al., 2006; Browne-Yung et al., 2013; Ziersch et al., 2011b). The findings in the current study highlight the inherent and undermining nature of racism and discrimination. In response to this situation, the participants appeared to consider it normal to be rejected or misunderstood by non-Indigenous Australians. Indigenous people, at least in this study, appear conditioned to consider themselves unworthy of being treated as equals by non-Indigenous people. The social hierarchy that is perpetuated by these circumstances reinforces racial stigmas and creates a barrier to interactions. The detrimental effect of this barrier is emphasised in research regarding marginalised groups that indicates benefits of social support obtained via interactions with the wider community (McLaren, 2009; Richmond et al., 2007).

A central theme throughout the interviews was an overwhelming desire for close connection with others. As was previously mentioned, the sense of belonging to the Indigenous community is paramount to cultural and personal identity (McLennan and Khavarpour, 2004). Richmond et al.’s investigation into social support among Canadian Inuits revealed that not all sources of support creating a sense of belonging are health promoting. Berry (2009) noted that connection increased happiness but did not necessarily decrease psychological distress among the Indigenous Australians involved in their study. The importance of connection and belonging may mean that Indigenous people prioritise these factors over other issues such as health outcomes.

The therapeutic effect of the sense of belonging may be enhanced by gaining it from outside the kinship system. It was noted that psychologically positive effects were gained from associations made outside the kinship system. For instance, acceptance by co-workers seemed to reinforce self-confidence. This could be interpreted as gaining a sense of belonging from the general community is supported by research concerning other
marginalised groups (Hill, 2006; McLaren, 2009; Richmond and Ross, 2008). However, this research highlights the juxtaposition of gaining a sense of belonging from the general community when racism inhibits developing relationships with them and generates distrust towards them.

4.1. Limitations

Due to the qualitative nature of the study and the small sample size comprised mainly of older women, the findings cannot be generalised beyond the study sample. However the credibility and validity of the themes was substantiated by the methodological and interpretive rigour employed throughout the study, and by the process of member checking and community consultation (as per Bichard & Rosen, 2010).

Obtaining data via interviews exposes the process to bias caused by the interaction between the participants and the interviewer. There is a common propensity for people to maintain their public image by answering questions in a manner that validates this image (Baumeister, 1982). These biases were minimised by the yarning technique (Bessarab and Ng’andu, 2010) that allowed conversations to flow and encouraged participants to forget the interviewing format.

The findings indicate there may be benefit in conducting empirically based research. This research could examine the link between the participants’ burden of disease and the social support involved in their connections.

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Conflicts of interest

The authors declare that they have no conflicts of interest.

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