

**EXPLORING CULTURAL VARIABLES AFFECTING SPORT AND
PHYSICAL ACTIVITY BEHAVIOURS OF KAREN REFUGEES IN
AUSTRALIA: APPLYING A CULTURALLY SPECIFIC APPROACH
TO ACTIVE LIFESTYLES**

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THESIS SUBMITTED IN FULFILMENT OF THE REQUIREMENTS OF
THE DEGREE OF DOCTOR OF PHILOSOPHY

4th February, 2016

COLLEGE OF SPORT AND EXERCISE SCIENCE
VICTORIA UNIVERSITY

ABSTRACT

Culturally and linguistically diverse (CALD) communities; refugees in particular, have complex health concerns and may be at increased risks of developing lifestyle diseases such as type II diabetes. Yet, in Australia, these groups are not participating in the recommended amount of regular sport and physical activity (PA) to obtain important health benefits. Researchers have suggested that this may be due to various factors, some of which are synonymous with the general population (e.g., cost, time). However, the influence of cultural variables and the process of resettlement on refugees' participation in sport and PA in Australia is relatively unexplored. This project aims to investigate such variables amongst recently arrived Karen refugees, whose cultural and ethnic background is distant from traditional Australian's backgrounds. The Karen have been arriving to Australia in significant numbers over the last few years, and thus local service providers commonly work with the group. In-depth interviews, PA diaries and a family PA intervention were undertaken as part of this PhD project. The thesis argues that cultural background and the process of acculturation in a culturally distant country significantly impact on PA participation for the Karen. Concepts of identity, values, and differences in lifestyles between 'back home' and Australia are important considerations for service providers working with the Karen. The culturally specific PA pilot program was implemented effectively, suggesting that participation may be encouraged in this group through similar programs, if they are appropriate and meaningful for the participants. This PhD project suggests

that obtaining an in-depth understanding of a target group's culture and social context is important in developing and implementing effective culturally specific PA programs for CALD communities.

DECLARATION

“I, Téa O’Driscoll, declare that the PhD thesis entitled ‘Exploring Cultural Variables Affecting Sport and Physical Activity Behaviours of Karen Refugees in Australia: Applying a Culturally Specific Approach to Active Lifestyles’ is no more than 100,000 words in length including quotes and exclusive of tables, figures, appendices, bibliography, references and footnotes. This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work.”

Signatur



Date: 04/02/2016

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DEDICATION

This thesis is a product of my passion, which has been nurtured by two very important groups of people. First, I dedicate this work to my supportive and loving family. I know how hard my parents worked to start from scratch and give my brother and me a better and brighter future in Australia. I hope that this piece of work gives you a glimpse into the amount of appreciation and gratitude I have for what you have endured for us. I think you always knew someday I would do this.

Second, I would like to dedicate this piece of work to the amazing group of individuals I have worked with, who sparked, fostered, and maintained my passion for working with CALD groups. Specifically, I want to dedicate this piece of work to the Karen community I have known and worked with. As a service provider in the past, I have seen firsthand how progressive, capable, strong, and committed your communities are. To overcome the atrocities you have experienced as a group, and to continue to support each other whilst you navigate the never-ending challenges of resettling in Australia is a remarkable feat. I am privileged to be able to share your stories with the world; and I hope this thesis shows you how much that means to me.

ACKNOWLEDGEMENTS

First and foremost, I would like to thank my incredible supervisors, Professor Remco Polman, Dr. Erika Borkoles and Dr. Lauren Banting. Your individual strengths and expertise formed an all-star team that I am honoured to have been guided by. This would not be real had it not have been for your hard work, perseverance, and your valued emotional support (add to that lots and lots of your time and patience). Remco, you knew exactly how to get things done effectively and on time, and this project would not have run so smoothly and progressed so seamlessly without your guidance and strong leadership. Erika, I have endless gratitude for your commitment to this project, both academically and emotionally. You were always available, always supportive, and always full of ideas – this meant a great deal to me. Lastly, but most certainly not the least; Lauren. I cannot express in words how unbelievable it has been to work with you; if I could be half the researcher you are, I would be grateful. Your knowledge, work ethic, kindness, and passion are truly inspirational; thank you.

Secondly, I would like to thank my husband, Michael O’Driscoll, for his unconditional support and encouragement over the years. You gave me the tools I needed to reach my goal, and I am eternally grateful for that. You sensed when I was at breaking point, and you never let me fall. We experienced a lot throughout the duration of this PhD both as individuals, and as a couple, and yet you supported me through every single minute of it. Your encouragement really

was invaluable to me, and a constant source of assurance; the voice in my head that kept saying “just keep going.” Receiving support without even having to ask for it is truly magical, and I am ever so lucky to have our magic.

I would also like to thank my parents, Miki and Dragan Slezak, and my big brother Teo, for their reassurance and endlessly positive outlook on life. Bez vas, ne bih ni imala snagu da sanjam ovakve snove, niti bih ikada imala inspiraciju, niti ohrabrenje da pratim te snovi. *If it wasn't for you, I would not have even dreamt this big, nor would I have ever been inspired and brave enough to chase those dreams.*

To my older brother, Teo; you have been an inspiration my whole life and all I ever wanted was to be just like you.

Lastly, I would like to thank Taw Doh Moo and Ida Bright, for their invaluable contribution and hard work with this project. Ida, my interpreter, cultural liaison, research colleague, and friend; your devotion and dedication to this project kept it alive and thriving and it would never have been such a success without you. You are a source of inspiration and motivation, and I cannot express enough gratitude for granting me the trust of your community. These past three years working with you and your community have changed my life. Thank you.

PEER REVIEWED PUBLICATIONS FROM THESIS

O'Driscoll, T., Banting, L.K., Borkoles, E., Eime, R., & Polman, R (2014). A systematic review of sport and physical activity participation in culturally and linguistically diverse (CALD) migrant populations. *Journal of Immigrant and Minority Health*, 16(8), 515-530. doi:10.1007/s10903-013-9857-x.

CONFERENCE PRESENTATIONS FROM THESIS

O'Driscoll, T., Banting, L.K., Borkoles, E. & Polman, R. (2015, June). An exploration of Karen refugees' concepts of health, sport and physical activity (PA) during processes of cultural changes and resettlement to Australia. Poster presented at the annual North American Refugee Health Conference, Toronto, Canada.

O'Driscoll, T., Banting, L.K., Borkoles, E. & Polman, R. (2015, April). Active Families, Healthy Bodies: A new model to engage refugee families in active lifestyles. Oral presentation delivered at the annual Australian Council for Health, Physical Education and Recreation (ACHPER) International Conference, Adelaide, Australia.

O'Driscoll, T., Borkoles, E., Banting, L.K. & Polman, R. (2014, May). Looking through different lenses of health: Exploring perceptions of sport and physical activity participation of Karen refugees resettled in Australia. Poster presented at the annual meeting of the International Society for Behavioral Nutrition and Physical Activity (ISBNPA), San Diego, USA.

O'Driscoll, T., Borkoles, E., Banting, L.K. & Polman, R. (2014, May). Making sense of health perceptions through interpreters – issues for sport and physical activity researchers working with culturally diverse populations. Poster presented at the annual meeting of the International Society for Behavioral Nutrition and Physical Activity (ISBNPA), San Diego, USA.

O'Driscoll, T., Banting, L.K., Borkoles, E., Eime, R. & Polman, R. (2013, December). How much do we really know about CALD migrants' PA and sport participation? Oral presentation delivered at the annual Australian and New Zealand Association for Leisure Studies (ANZALS) Conference, Melbourne, Australia.

EXTERNAL FUNDING AWARDED DURING CANDIDATURE

South Western Melbourne Medicare Local (SWMML) *Laverton Community Health and Wellbeing Grant* awarded for, Active families, healthy bodies: A new model for engaging refugees in sport and physical activity, **\$13,900 AUD** awarded in July 2014.

DEFINITION OF TERMS

Table 1.1 Definition of terms

BMI	Body Mass Index
Burma	It is acknowledged that the official name of Burma is Myanmar after the Government officially changed the name in 1989 (United Nations, 2013), however many ethnic groups in Burma oppose this name change (Dittmer, 2010). Furthermore, all of the Karen community members that I have worked with refer to their home country as Burma, thus I have chosen to respect the Karen's use of Burma and use this name throughout the thesis.
CALD	Culturally and linguistically diverse
CALD Migrants	Culturally and linguistically diverse individuals who have resettled into host countries and are separate from migrants and immigrants who resettle into host countries where the culture and/or language is the same as the home country
CD	Community development
CL/s	Community leader/community leaders
Community	Understood as a term encompassing both small and local groups of individuals who share common values like the Karen community, and also a wider collection of individuals such as the broader "Australian" community (Murray & Wynne, 2001)
HBCC	Hobsons Bay City Council
Interpreter	Used throughout this thesis to refer to an individual who provides a translation service between different languages verbally in real-time, without the use of reference material, during an interview (distinguishable from a translator)
IPA	Interpretative Phenomenological Analysis
LCH	Laverton Community Hub (operated by HBCC)
LTPA	Leisure time physical activity

OPA	Occupational physical activity
PA	Physical activity
PTSD	Post-traumatic stress disorder
Refugee	Understood in terms of the 1951 United Nations definition of a person who is outside the country of their nationality "... owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion..." (United Nations, 1951)
SWMML	Southern Western Melbourne Medicare Local
Translator	Used throughout this thesis to refer to an individual who provides a translation service between different languages using audio recorded and written material, and has reference material and resources such as time (e.g., to stop/start audio) or dictionaries to assist with translation (distinguishable from an interpreter)
VU	Victoria University
WCC	Wyndham City Council
WHR	Waist to Hip Ratio

PREFACE

The research presented within this thesis comprises various types of qualitative analyses utilising ethnographic sensitivities. As such, my own background and experiences shaped my interpretations and analysis of the data, including meaning derived from the studies. This thesis was conceived from, and created with, many of my own experiences of working with Karen communities in the past. Thus, the thesis connects much of my own previous beliefs and understandings about the Karen culture and way of life, with new interpretations and meanings created by the research project.

For example, in the thesis, I use terms, ideas, and meanings that were provided to me or used in conversation with members of the Karen community either in the past, or during this research project. Terms such as 'the West' and 'non-Western' are terms readily used by Karen community members to refer to their own culture and Australian culture as a whole. Similarly, the terms 'Burma', 'Australians' or 'Aussies' and 'the Karen' are used in the same manner. It is not the purpose of this thesis to present and argue the appropriate use of terminology such as 'the West', 'non-Western' or 'Aussies' to categorise particular ethnic groups, and apply them to academic writing. Nor is this thesis intended to arouse debate regarding the phenomenon of culture and ethnicity. Rather, I use these terms to respect the vernacular of the Karen community who use the terms commonly amongst themselves. In doing so, I aim to comprehensively represent how my participants perceive the world around them, through use of their own voices and understandings of their experiences. However, I do acknowledge that use of such

terms (particularly 'Western', 'non-Western', and even 'CALD') carries certain connotations and perhaps homogenous references about particular ethnic groups. I understand that there are complex discussions pertaining to the appropriateness and effectiveness of the use of such terms in academic writing spanning across disciplines from anthropology through to psychology. However, complete and thorough acknowledgement of these discussions merits a whole other thesis in itself, and there is simply not enough room to dedicate such space within this particular thesis, and is beyond the scope of the current manuscript.

In this thesis, I write in the first person and use active voice, despite this being an academically unconventional method of documenting research. This style of writing acknowledges that research is a subjective process, and I highly value the subjective input that has come specifically from my own background and experiences; my Master's Degree in International and Community Development, my job as a community development officer, and being a refugee to Australia who has, and is still going through, the acculturation process. This writing style is a particular phenomenological method utilising aspects of retrospective self-reflection, which has been modelled by key researchers of acculturation (e.g. Rudmin, 2010). Throughout my thesis, I use the active voice and the first person perspective, in instances where they provide a more personal and meaningful record of the research. In this way, I feel that I stay true and consistent to the accurate documentation of my personal and research related journeys, which together have resulted in this thesis as a whole.

A note on the woman who acted as my interpreter, cultural liaison and research colleague, Ida Bright; I met Ida through my role as a multicultural community development officer. She is an incredibly busy woman, whose passion for helping the Karen community is infectious. I met with Ida as soon as I started my PhD, and asked if she would be willing to work with me, primarily to assist me with the cultural and language barriers. However, throughout the course of my PhD, I realised that Ida's arduous journey of starting from scratch, rebuilding social identities, navigating foreign systems and fighting for equality in health and wellbeing, connected her to my research firmly. And, it is through her, that I, as an observer and a newcomer to the community group, learnt about her culture, and began to appreciate what it might be like to walk a day in my participants' shoes. As with my own, Ida's subjective input is acknowledged and valued in this thesis; namely her interpretations of meaning in the data, which provided a unique insight into the lives of my participants. In this research project, Ida was not just an interpreter. Ida was a mentor, a leader, a cultural liaison, a community champion, a project manager, a colleague, and a research partner.

“If big, share and eat together; if small, share and eat together”

*Karen Proverb*¹

¹ Karen Proverbs, Drum Publications: www.drumpublications.org/download/proverbs.pdf

CHAPTER 1: INTRODUCTION

1.1 INTRODUCTION

A series of seemingly disconnected events in my life have directed me to this PhD. As a refugee to Australia, I once ‘navigated’ the culturally shifting landscapes of ‘fitting in’. But, it was during my undergraduate degree, where I volunteered for a homework program for local Karen (pronounced kuh-ren) refugee children, that I became captivated by the interplay of our different cultures. Later in my working career, I observed the marked success of a small, council-run swimming program for Karen refugees in a nearby local council. Yet, I could not understand why refugees rarely attended the free physical activity (PA) sessions at my local council. Seeing the differences in participation of such programs prompted me to explore concepts of culture and health in refugees, and how they influence sport and PA participation in Australia.

1.1.1 Rationale

My previous work experiences and personal intrigue drove the general rationale of this research, which, perhaps by some strange coincidence, was reinforced by a demand for a deeper understanding of this topic (see Chapter 2, Review of Literature). My varied roles as a multicultural community development officer involved implementing State Government initiatives targeting CALD communities through community programs and provision of various services. At the time I was employed, there was a large focus on encouraging participation in active lifestyles for CALD communities, particularly leisure time PA (LTPA) and sport, as a means of building community capacity (Edwards, 2015), increasing

involvement in preventative health behaviours to reduce chronic disease risk (Queensland Health, 2010), and supporting resettlement (Jeanes, O'Connor, & Alfrey, 2014). These initiatives were implemented through various community programs and the provision of a broad array of services all ranging from low cost and free PA sessions and family sports days, to free health education sessions and workshops. Unfortunately, however, many of the individuals tasked to provide these services either lacked the skills, knowledge, or resources, to deliver appropriate and sustainable outcomes; often creating stop-gap solutions on an ad-hoc basis. In a recent study exploring service providers' perspectives on CALD PA services, Caperchione, Kolt, and Mummery (2013) found that financial resources and trained staff contributed to limited appropriate programs for CALD communities.

However, one low-cost swimming program, held originally for the Karen community in the Hobsons Bay municipality, (which branched out to a general program later on), was very successful in engaging large numbers of Karen, who continued to attend over a substantial length time. I was fortunate enough to have worked on the program, which sparked a lot of my interest in this topic. The program engaged over capacity numbers of participants (mainly children to begin with) each time it was held (twice annually). It was held at a local pool, engaged bi-lingual swimming teachers, was promoted through local community channels and was offered at very low cost (\$20 for 5 full days of qualified swimming coaching). The program resulted in many return participants, parents joining the program, and some participants gaining coaching qualifications (AUSTSWIM

qualifications delivered by Swimming Victoria) who were employed and often returned to deliver the program in later years. The program eventually led into further collaborations with other agencies to develop a mother's and babies swimming program and a beach safety swimming program through Lifesaving Victoria, who also explored avenues of supporting participants to obtain qualifications for lifesaving. The program was delivered jointly by Council, the Western Bulldogs and Swimming Victoria. It was initiated through general discussion with local Karen communities, who showed an interest in learning to swim. I believed that the key to the success of this program was a thorough understanding of the target group's culturally specific needs, which in this program, the Western Bulldogs had. The Western Bulldogs' community development department, SpiritWest services, is closely involved with refugees and migrant groups, and has worked intimately with the Karen community in the Western suburbs of Melbourne for several years. SpiritWest had strong local networks, were trusted by the community, and were often present at many community meetings and functions. It was through this presence and trust, that they developed a good knowledge of the local Karen community's needs and gained valuable feedback which generated the development of the program.

Outside of this program, however, many Karen were not participating in sport and PA regularly in Australia. This was particularly interesting, because many stories I had heard from Karen refugees were entrenched with references to participation in sport and several types of PA, such as soccer and working on the family farm, prior to their arrival to Australia. Thus, I wondered whether there

were culturally specific variables which influenced refugees' participation in active lifestyles in Australia; hence the development of this research project.

1.1.2 Introduction

Health is universally acknowledged as a desirable state of being. But this does not mean that there is a universal understanding, definition or interpretation of health (Kemp & Rasbridge, 2004). Health may have various meanings, for example, the Indian health belief model blends religion with secular medicine and observes the individual as being in or out of balance with the environment (Kemp & Bhungalia, 2002). This is somewhat similar to the traditional health beliefs of people in Burma, whereby health is related to harmony in and between the body, mind, soul and universe (encompassing spiritual circumstances). However, 'harmony' is often expressed as a balance of 'hot' and 'cold' states (Kemp & Rasbridge, 2004). The commonly-cited 1946 definition provided by the World Health Organisation represents health as a "...state of complete physical, mental and social wellbeing, not merely the absence of disease or infirmity" (World Health Organization, 1946, p. 100). In the 'West', regular participation in sport and PA conforms with this holistic concept of health and wholeness, and associated social, physical and psychological benefits (Biddle, Fox, & Boutcher, 2000). It is commonly accepted that regular PA participation also has a range of physical and psychological health benefits, including enhancing mood, the prevention and management of type II diabetes and cancer, and improving cardiovascular fitness (Hardman & Stensel, 2009; Laaksonen et al., 2005;

Warburton, Nicol, & Bredin, 2006). There is general agreement that participating in team sports may increase the sense of social belonging, foster social capital, and prevent social isolation for culturally and linguistically diverse (CALD) groups (e.g., Archetti, 1999; Kelly, 2011; Spaaij, 2015). In considering the higher prevalence of mental illnesses in refugee populations (see Section 1.2 of this Chapter), some researchers have also suggested that PA may have beneficial effects on depression symptoms, which may be comparable to common antidepressant treatments (Dinas, Koutedakis, & Flouris, 2011; Josefsson, Lindwall, & Archer, 2014). However, despite these numerous health benefits, CALD migrant communities are less likely to engage in sport and PA or, if they do, reach recommended levels of activity after settlement (Australian Bureau of Statistics, 2012). Worldwide, large numbers of CALD migrants have resettled into new host countries like the United States, Canada and Australia (Australian Government, 2009a). There is also growing evidence to suggest that some CALD groups are at an increased risk of developing certain diseases, such as type II diabetes, possibly reflecting biological and environmental differences (Ayodele, Alebiosu, & Salako, 2004). Governments of such host countries are therefore increasingly concerned that CALD communities may be missing out on the health benefits accruing from regular sport and PA participation, such as the alleviation, management and prevention of chronic diseases such as cardiovascular disease and type II diabetes.

Many researchers have proposed that there are numerous barriers to participation in sport and PA for CALD communities (e.g., Caperchione, Chau, Walker, Mummery, & Jennings, 2013; Caperchione, Kolt, & Mummery, 2009b; Clark, 1999; Dergance et al., 2003; Lee, 1998). These include language barriers, time, costs, transport, and a lack of awareness of suitable programs. A number of these barriers are similar to the general population. However, there is an added element of cultural and linguistic difference which makes participation more complex for CALD communities (Gerber, Barker, & Pühse, 2011). In a recent systematic literature review of CALD migrants' participation in sport and PA, it was suggested that culture and acculturation impact on participation significantly (O'Driscoll, Banting, Borkoles, Eime, & Polman, 2013). However, that same literature review suggested that most researchers in the field of sport and PA among CALD communities did not consider cultural and acculturation factors at depth, and of those who did, many had a 'loose' understanding of the term and its application in their research (O'Driscoll et al., 2013). Acculturation has been discussed in the context of various health behaviours of CALD groups, such as mental health, dietary changes, and behaviours such as smoking and alcohol consumption (Caperchione, Kolt, & Mummery, 2009a). However, in this field overall, there is limited research that explores how various cultural groups conceptualise health, and how this may interact with and affect sport and PA participation behaviours during processes of cultural change and resettlement. This is particularly so for refugee groups, where research on primary health concerns such as tuberculosis and HIV/AIDS is plentiful (Kemp & Rasbridge,

2004), however lacking in research on preventable health behaviours such as sport and PA participation. Thus, this project aims to make a significant contribution to knowledge in the literature by exploring the cultural variables that affect sport and PA participation for a refugee group in Australia. This project is a novel interdisciplinary approach to understanding and developing methods of addressing issues in health and wellbeing with refugee communities. The interdisciplinary nature of the project is a strength because a monodisciplinary approach could not provide well-rounded outcomes. Utilising expertise from social science disciplines such as community development and psychological disciplines (exercise psychology in particular), allowed the researcher to develop a deep understanding of the target group's culture and therefore apply a truly culturally sensitive approach to developing a successful and effective intervention.

1.2 KAREN REFUGEES

The Karen are the third largest ethnic group in Burma (Myanmar) after the dominant Burman (Bamar or Burmese) and Shan populations (Steinberg, 2010). Burma is ethnically diverse and minorities identify themselves with their cultural groups (e.g., Karen, Chin, Rohingya) (Steinberg, 2010). The Burmese are ethnically distinct from the Karen, and the Karen often stress that they are 'from Burma, but not Burmese'. A recent study may even suggest that there could be historical differences in DNA between the two groups (Summerer et al., 2014). The authors evaluated the genetic 'footprints' of Burma through mitochondrial

DNA (mtDNA) haplogroups, and compared genetic samples of the Bamar and Karen people. The results showed that the samples were very inhomogeneous and indicated vastly different demographic histories, suggesting that the Bamar sample was extraordinarily diverse and showed signs of demographic expansion, whereas the Karen sample showed genetic isolation and demographic equilibrium (Summerer et al., 2014).

After Burma's independence from British rule in 1948, the Karen people have been subjected to a long history of oppression by the authoritarian dictatorship of the Burmese Government. The regular burning of villages, forced labour, forced relocations, killing of family members (Petersen, Worm, Olsen, Ussing, & Hartling, 2000) and various other 'unacceptable human rights abuses' (Checchi, Elder, Schäfer, Drouhin, & Legros, 2003) have resulted in many Karen (along with other ethnic minorities) fleeing to one of the nine main refugee camps situated along the Thailand/Burma border. It is estimated that approximately 78.8% of refugees in the camps are Karen (Thailand Burma Border Consortium, 2011). Since 2009, Burma has consistently been in the top 3 countries of birth for offshore humanitarian entrants to Australia (Department of Immigration and Border Protection, 2014). The high intake of Karen refugees to Australia therefore meant that the Karen were one of the main target groups for service providers and Local Government bodies, thus, my keen interest in working with Karen refugees.

The Karen are comprised of many subgroups of ethnicity, however two of the most common groups in Australia are; Pwo Karen and S'gaw Karen, each with their distinctive languages and cultural customs². Most Karen refugees in Australia spent considerable lengths of time in the refugee camps prior to resettlement. Due to restricted services and poor conditions in the camps, refugees had very limited health, education, and employment opportunities. Karen livelihoods are heavily reliant on farming, with nearly 70% of Karen participating in some form of agricultural production or hunting activities (Barron et al., 2007). Basic Karen cultural values are based on respect and politeness (particularly for the elderly and for parents), a high value for education, indirect communication (as opposed to Western directness and emphatic body language may be perceived as rude or uncomfortable) (Centers for Disease Control and Prevention, 2010), and democratic structures (elected village leaders). The general Karen culture is highly collectivist and centres around humility, community, cheerfulness, and cooperative harmony over individualism and assertiveness. For many Karen, self-promotion is shameful and asking questions or being involved in any confrontation is avoided. There are deeply embedded cultural dynamics of family and heavy value on family, respect and duty to

² The information in this section is obtained through a collection of various sources, which have come specifically from my own working experiences, and from attending various information sessions and workshops created in cooperation with Karen community members. One such session was organised by Women's Health West and two Karen refugees, which was titled 'Working for us with us!' This session was attended on the 13th November, 2013 at the Hobsons Bay City Council Civic Centre, Altona.

parents (Barron et al., 2007). Some of these dynamics are in contrast to common Western beliefs. For example, women will often seek permission from their husbands, and this is expressed as a means of showing respect to each other, rather than a controlling or oppressive relationship dynamic. Children that are perceived as being 'good children' are those that are submissive to their parents, whilst parental methods of upbringing may be considered strict in a Western family. There may also be cultural differences in relation to healthcare, particularly nutrition (e.g., avoiding particular foods if ill or pregnant), or pregnancy related concerns (e.g., hospital births may be shameful due to examinations or male health staff) (Centers for Disease Control and Prevention, 2010).

Some of the most common resettlement challenges for Karen refugees resettling in Western countries such as the United States and Australia are: Language barriers, unfamiliarity with governmental systems (e.g., education, healthcare, welfare, laws), disengagement or fragmentation of community and family, having 'too much freedom', contrasting cultural opinions, lack of trust, unfamiliarity with Western culture and urban lifestyles, time management and transportation (Centers for Disease Control and Prevention, 2010). Research that explored the impact of previous trauma and resettlement stress on refugees from the Middle East, indicated that whilst previous trauma contributed 22% of variance in predicting post-traumatic stress disorder (PTSD), resettlement stressors contributed to 24% of variance of depression and anxiety symptoms

(Lindencrona, Ekblad, & Hauff, 2008). An Australian study on mental health in refugees from a Burmese background (albeit not specified as Karen, the authors acknowledged that Karen people constituted the largest ethnic group arriving to Australia from Burma) found that a substantial proportion of participants reported psychological distress, specifically PTSD (9%), anxiety (20%) and depression (36%) (Schweitzer, Brough, Vromans, & Asic-Kobe, 2011). Another study that evaluated the prevalence of mental illness in a Karenni refugee population, a 'cousin' ethnic group of the Karen (Karen Buddhist Dhamma Dhutta Foundation, 2011), also showed elevated levels of depression and anxiety symptoms, whilst PTSD symptoms were lower than those reported in other long-term refugee populations (Cardozo, Talley, Burton, & Crawford, 2004). Thus, research suggests that Karen refugees may report significantly high levels of anxiety and depression in particular, highlighting the need for appropriate strategies and services.

1.3 OVERALL PURPOSE AND RESEARCH OBJECTIVES

From a service provision perspective, recent research has suggested that PA programs targeting CALD communities need to be culturally specific and consider the group's needs, diverse culture and other sociocultural factors to improve the availability and effectiveness of programs offered to this population (Caperchione, Kolt, et al., 2013). Through my work, I was aware that service providers (including the Local Government I was employed with) were under-resourced to provide culturally specific and effective PA programs due to a

primary concern with the provision of settlement, welfare and education or employment services. After a thorough search of the literature (Chapter 2), it became apparent that researchers and service providers lacked knowledge of culturally specific approaches to sport and PA participation for some CALD groups in general, and Karen refugees in particular. Thus, the precise aims of this research project were:

- 1) to explore concepts of health, sport and PA, and determine the cultural variables that influence sport and PA participation
- 2) to evaluate sport and PA behaviours over time in Australia within the context of cultural change and acculturation, and investigate if there are any changes in concepts of health, sport, and PA over time in Australia,
- 3) to develop, implement and evaluate a culturally appropriate sport and PA pilot program based on an understanding of how the group's cultural variables such as concepts of health and collectivism impact on participation.

This research project consisted of four phases conducted in three separate studies. Study 1 involved two phases, a systematic literature review aimed at providing an exhaustive summary of current literature, and a baseline in-depth general interview exploring values, beliefs and concepts of health, sport and PA of Karen refugees. Study 2 involved individual and group interviews three times a year, and participant self-reported PA behaviour diaries documenting 7 days of

activity each month for the same year. Study 3 consisted of the development, implementation and evaluation of a community directed, family based (adults and children together) 8-week sport and PA pilot program. Sections 1.4 to 1.6 of this Chapter provide a brief abstract of these studies, but for an exhaustive documentation of each study, please see Chapters 4 to 6.

1.4 STUDY 1 DESCRIPTION

Study 1 was conducted during the first year of candidature, with the first phase consisting of a systematic literature review (Chapter 2) which was completed 2 months after candidature approval by Victoria University (VU). The second phase entailed a qualitative study that explored 14 Karen participants' perceptions of health, sport, and PA participation in Australia. Participants were either newly arrived (less than 2 years in Australia) or recently arrived (more than 2 years in Australia). The study consisted of an in-depth semi-structured interview, which was conducted using Interpretative Phenomenological Analysis (IPA) methodology. The purpose of the study was to gain a broad understanding of how participants experienced sport and PA participation through the context of their cultural background and acculturation processes in Australia. Two key themes emerged from the study; Karen perceptions of health and health behaviours, and, sport in Australia. The Karen concept of 'being healthy' is intertwined with a strong sense of Karen identity, and is intricately related to a psychological sense of wholeness and wellbeing. Sport is perceived by the Karen as being different to what is commonly experienced in Australia, which is often perceived as culturally inappropriate. An important finding from this study suggests that there is an awareness in the community that PA participation is a health behaviour; however an understanding of how this PA contributes to a feeling of being healthy is not evident. Findings of this study were important for the overall research project as they guided the development and implementation of Study 2 (Section 1.5) discussed below.

1.5 STUDY 2 DESCRIPTION

This study was built based on the major themes and topics that arose from Study 1. Study 2 also involved 14 Karen refugees, half of whom had participated in the first study. Two different methods were used to monitor PA participation and the participants' understanding of PA participation. The first method was a self-report PA diary that participants were asked to maintain over the length of the year, and, the second method was a combination of individual interviews or group interviews (according to participant requests) conducted approximately every 4 months throughout the same year. The study was designed to explore whether there were any observable changes in how Karen individuals perceived sport and PA participation (and associated health behaviours) over time in Australia. Interpretative Phenomenological Analysis was again utilised for the qualitative aspects of the study. Diary results indicated that the most commonly reported activity was walking, whilst males reported greater amounts of higher intensity activities (such as running), and females reported slightly higher amounts of moderate intensity activities (such as brisk walking). Both males and females reported similar amounts of low intensity activities (such as gardening). The interviews suggested that participants' experiences of settlement challenges (e.g., transportation) appeared to lessen by the end of the year, with some participants gaining employment or acquiring cars for transport, which assisted them to 'settle well'. However, other challenges such as cultural differences, time management, and child rearing became more pertinent as participants reflected in detail on the differences between the 'home country' and Australia. Concepts

of being a Karen in Australia, health, sport and PA did not change over time, and overall the results of the study confirmed Study 1 findings. Participants of this study supported and guided the development of a Karen family sport and PA program (Study 3), which aimed to address some of the determinants of participation, such as collective family outcomes (Section 1.6 discussed below).

1.6 STUDY 3 DESCRIPTION

Study 3 was conducted in the third year of candidature. It was developed in collaboration with the participants of Study 2, along with three key Karen community elders, towards the end 2013. With an understanding of Karen cultural values (in particular the concept of Karen identity), barriers and facilitators to sport and PA in Australia, and a need for culturally appropriate and specific PA programs, Study 3 was developed and an 8-week pilot PA program was run in collaboration with a Local Council. The aims of the intervention were to encourage participation through an appropriate medium, provide a space for families to learn to be active together, and demonstrate new activities for the Karen to try. External funding awarded during the third year of candidature was used to implement the program. The program consisted of 36 children and adults participating in a 2-hour educational and activity session each week, with one 6-month follow-up session post-completion. The education modules covered topics that were relevant to the participants (often changing each week), and activity sessions consisted of several activities suggested by various members of the Karen community (including Study 2 and Study 3 participants). Activities included karate, gymnastics, golf, soccer, volleyball and play based games (e.g., running races). Educational topics included the Australian recommended dietary guidelines, benefits of sport and PA participation, high blood pressure, type II diabetes, and meals and diets specific to the participants. The pilot program was evaluated with basic evaluation surveys, interviews and informal discussions with instructors and some participants, and ethnographic methods of observation. The

average rate of participation over 8 weeks was 81.8%, and participants all indicated that the program was valuable for them and that they would participate in a similar program in the future.

1.7 THEORETICAL UNDERPINNINGS AND FRAMEWORKS

This project centres on the exploration of how individuals who are undergoing a process of cultural change experience a phenomenon in Australia. Thus, it is based upon key theoretical foundations and frameworks that underpin acculturation and the IPA method as a basis for analysis.

1.7.1 Acculturation

The term acculturation was initially proposed by early anthropologists, with the most widely cited definition today being from anthropologists Redfield, Linton, and Herskovits (1936), who stated that acculturation "...comprehends those phenomena which result when groups of individuals having different cultures come into continuous first-hand contact, with subsequent changes in the original culture patterns of either or both groups" (Redfield et al., 1936, p. 149). The term has been studied within other disciplines such as public health, sociology and education, and whilst the amount of literature on the term is expansive, its precise meaning and definition is still equivocal (Rudmin, 2010). From a cross-cultural and psychological perspective, acculturation has been discussed mainly by John Berry (e.g., Berry, 1997, 2005; Berry, Poortinga, Breugelmans, Chasiotis, & Sam, 2011). This approach, guided by the strong focus of anthropology on the individual, led to the formal distinction between individual-level changes, 'psychological acculturation' (Graves, 1967), and group level phenomenon (Berry et al., 2011). There are three prominent schools of thought on the theory of acculturation. The first is an early uni-directional viewpoint

(Gordon, 1964) which suggests that there is a gradual progression of assimilation, or “absorption” (Gordon, 1964, p. 68) process for immigrants into the native culture. The second is the bi-dimensional approach (e.g., Berry, 2005), which emphasises the two dimensions of maintaining heritage culture and participating in the new culture. Finally, the third describes an interactive acculturation model (Bourhis, Moise, Perreault, & Senecal, 1997) which appreciates the interaction between the two differing cultures and the combinations of both acculturation orientations. There are various critiques of some of these acculturation models, particularly those that ‘categorise’ individuals into either high or low categories of dimensions, such as integration and assimilation (e.g., Berry, 2005). This carries the assumption that all dimensions do exist, are equally valid, do not have multiple subtypes and can be measured on a ‘low’ or ‘high’ scale for every individual equally (Rudmin, 2003). Models such as Berry’s may also carry ‘assimilation’ undertones due to the strong focus on changing and adopting identities for the new culture specifically, which may not necessarily refer to the optimal outcome for all migrants. As Rudmin (2003) argues, such models adopt a one-size-fits-all approach which characterises individuals uniformly. Countries of origin and settlement, migration experiences, resettlement experiences and cultural distance (the degree of difference between cultures in various dimensions such as language and values; (Furnham & Bochner, 1982) all influence acculturation. However, the integration category of the four categories of Berry’s bi-dimensional approach (assimilation, separation, integration and marginalization), which refers to the adoption of the

receiving culture and retention of the heritage culture, may be associated with the most favourable psychosocial outcome (e.g., Coatsworth, Maldonado-Molina, Pantin, & Szapocznik, 2005; David, Okazaki, & Saw, 2009).

Nevertheless, this thesis is explorative in nature; it is not the aim to prove or disprove different models of acculturation, use specific models of acculturation as an underpinning, or evaluate and validate tools for measuring acculturation in the Karen. Rather, it is the intention of this thesis to understand acculturation in the broader sense (in terms of cultural changes) in the Karen community in relation to sport and PA participation, whilst being appreciative of the various schools of thought on the concept. The thesis takes into consideration an understanding of acculturation as a process of cultural change accompanied by individual psychological changes, stress, and individual influences (Berry et al., 2011). This understanding provides a context upon which meaningful interpretation of the data can be made, allowing an exploration of the unique characteristics of the Karen participants' individual experiences, resettlement process, values, and beliefs.

1.7.2 Phenomenology and IPA

This thesis is underpinned by the theoretical understandings of phenomenology, and utilises IPA as a phenomenological method of conducting research. IPA is based on the exploration of individual experiences, interpreted meaningfully through detailed examinations of the major phenomena in an individual's life

(Smith, Flowers, & Larkin, 2008). This method of analysis is informed by three key areas concerning the philosophy of knowledge: phenomenology, hermeneutics, and idiography. Phenomenology, the study of experience, allows an exploration and understanding of lived experience by considering the various aspects that are valuable to an individual's lived world. Leading figures in phenomenological philosophy (e.g., Heidegger, 1962; Merleau-Ponty, 1962; Sartre, 1956) paved the way towards a "...more interpretative and worldly position with a focus on understanding the perspectival directness of our involvement in the lived world" (Smith et al., 2008, p. 21). Hermeneutics, on the other hand, refers to the theory of interpretation. These three important concepts of phenomenological understanding were utilised as a foundation of this project in which meaning could be captured by the participants in a manner that was appropriate for them. Hence the aim to explore how participants see the world and choose to behave the way they do by understanding their individual ways of knowing. Following the acknowledgment that phenomenology is a hermeneutic process that Heidegger (1962) prescribed, IPA implicates the analyst as the facilitator of meaning creation (Smith et al., 2008). Lastly, in contrast to much of the psychological discipline which is concerned with making claims at a population level to establish general 'laws of human behaviour' (Smith et al., 2008), idiography focuses on 'the particular'. The method places particular value on single case studies, which can illustrate that something is, or how it is, in an intrinsically insightful manner. Perhaps, it can also have the ability to illuminate potential flaws in existing theoretical claims and direct to ways in which they can

be revised (Platt, 1988). Thus, IPA adopts procedures that allow more general statements to be inferred from single cases, whilst allowing retrieval of particular claims for each individual (Smith et al., 2008). For more information and justification on the use of IPA, please see Chapter 3, Overall Methodology, and Chapters 4-6 for individual studies.

CHAPTER 2: REVIEW OF LITERATURE

2.1 INTRODUCTION: CULTURALLY AND LINGUISTICALLY DIVERSE GROUPS AND PARTICIPATION IN SPORT AND PHYSICAL ACTIVITY

The text presented in this chapter replicates previously published text (O'Driscoll et al., 2013). Some information and final conclusions have been added and altered since the publication of the original article for purposes of context for this thesis.

The number of migrants entering Australia have almost doubled in the last decade, and it receives over 13,000 refugees each year (Australian Government, 2009b). Countries of migrant origins have shown marked increases from 'non-Western' and non-English speaking countries such as Iraq (79.9% increase in 2009) and Burma (17.1% increase in 2009) (Australian Government, 2009a). Many migrants from such countries arrive to Australia as refugees or through special humanitarian entry via the Humanitarian Program (Australian Government, 2012). These Australian migration patterns are similar to those of other 'Western' countries such as the United States of America, Canada, the United Kingdom, and countries of the European Union. It is challenging for individuals originally from non-Western backgrounds (e.g., Burma) to resettle into Western cultures, especially when compared to settling in similar regions to their home countries (Lin, 1986). It has been shown that CALD migrant groups such as these face physical and mental health risks during this process, due to the nature of their experience (Berry, 2005; Berry & Kim, 1988), and often face serious complex health issues when resettling into new countries (e.g., Fazel,

Reed, Panter-Brick, & Stein, 2012; Kemp & Rasbridge, 2004; Marshall, Schell, Elliott, Berthold, & Chun, 2005). In comparison to groups migrating from English speaking backgrounds or Western cultures, or for economic purposes such as those entering Australia through the Skilled Migration avenue; individuals facing 'forced migration' (refugees) (Ager, 1999) face additional challenges such as the potential consequences of separation, stress, and trauma, and may lack coping and social support systems (Ahearn, 2000). If appropriate coping strategies are lacking, individuals may experience 'acculturative stress', a stress reaction in response to major life events that derive from a process of cultural and psychological change (Berry, 2006). Stemming originally from anthropology to refer to group level changes, the term acculturation is now used primarily in discussions relating to individuals settling and living in regions other than in the ones where they were born. This includes refugees, immigrants and international students (Sam, 2006). Specifically, refugees may have endured the 'refugee experience', which encapsulates not just the personal, social and cultural consequences of forced migration, but everyday settlement and resettlement struggles (Ager, 1999). These challenges create complex and often serious health implications for refugees. In a systematic literature review of the prevalence of serious mental disorders in refugees who have resettled into Western countries, Fazel, Wheeler, and Danesh (2005) found that refugees may be around ten times more likely to have post-traumatic stress disorder than the general population.

Some researchers have even suggested that various CALD groups may be predisposed to developing lifestyle diseases such as type II diabetes owing to genetic and/or biological predispositions among certain 'racial' groups, such as South East Asians (e.g., Ayodele et al., 2004; Ramachandran, Wan Ma, & Snehalatha, 2010; Ritz & Orth, 1999). Coupled with this potential predisposition to lifestyle diseases, some refugee groups from developing countries may have originally been involved in substantial amounts of incidental PA in their home countries, and experience drastic lifestyle changes when they settle into more sedentary lifestyles in the West (Porter, 2002), which are commonly associated with adverse health conditions (Guerin, Diiriye, Corrigan, & Guerin, 2003). Thus, CALD migrant communities, and refugees in particular, are one of the most vulnerable populations in Australia.

It is generally well accepted by leading researchers, health organisations, and governments worldwide that regular participation in PA contributes to improved outcomes for health and wellbeing. The World Health Organization (WHO) identified physical inactivity as the 4th leading global risk for mortality worldwide (World Health Organization, 2009). Other risks included high blood pressure (hypertension), high blood glucose and overweight and obesity; all contributing to increasing risks of developing chronic diseases such as heart disease and diabetes (World Health Organization, 2009). It is predicted that numbers of individuals with diabetes will skyrocket from 84 million in 1995 to 228 million in 2025 (Aboderin, 2001). WHO projects that by the year 2020, almost three

quarters of all deaths worldwide will be attributed to chronic diseases (World Health Organization, 2009). In recent years, research evidence strongly suggests that participation in sports and PA leads to numerous improved health outcomes. For an exhaustive outline of this literature see Hardman and Stensel (2003) and Bouchard, Blair, and Haskell (2006). Generally, research has focused on the suggested links between sport and PA participation and the prevention or reduction of coronary heart disease risks (e.g., Sattelmair et al., 2011; Sundquist, Qvist, Johansson, & Sundquist, 2005), hypertension (Fagard, 2001; Rossi, Dikareva, Bacon, & Daskalopoulou, 2012; Whelton, Chin, Xin, & He, 2002), obesity (Ekelund et al., 2012; Hill, Drougas, & Peters, 1994), type II diabetes (Lee et al., 2012), and psychological wellbeing (e.g., Biddle et al., 2000; Conn, 2010). Active or passive participation in sports may also serve important social functions such as strengthening social cohesion, expanding social networks, producing social support, promoting social inclusion, and fostering a sense of belonging (e.g., Archetti, 1999; Kelly, 2011; Walseth, 2006a).

Yet, despite the numerous health benefits of regular sport and PA participation, CALD communities worldwide, and importantly in Australia, are less likely to participate in such behaviours or reach recommended guidelines (Australian Bureau of Statistics, 2006; Caperchione et al., 2009a; O'Driscoll et al., 2013). Previous studies and reviews have discussed the correlates of sport and PA participation amongst adults in general. These correlates typically include individual, social, and environmental factors with specific examples including individual health, marital status, time, past exercise behaviours, social support,

and neighbourhood characteristics (Trost, Owen, Bauman, Sallis, & Brown, 2002). However, CALD individuals may face several other barriers to participation such as language barriers and socio-cultural constraints, for example, a lack of social support (Spaaij, Magee, & Jeanes, 2014). There have been other extensive literature reviews that have specifically addressed correlates of sport and PA participation amongst CALD migrant groups (e.g., Caperchione et al., 2009a; Eyler, Wilcox, et al., 2002). In particular, the reviews by Caperchione et al. (2009a) and Gerber et al. (2011) established that the acculturation process was an important component of migrant health, which has been addressed in relation to diet change, the adoption of behaviours that are detrimental to health, such as smoking, and PA participation. However, due to the sheer nature of diversity amongst cultures and individual experiences during the acculturation process, synthesising research in this area is difficult. This is particularly so because many researchers use proxy measures of acculturation which may not represent a comprehensive overview of an individual's experience of acculturation (Gerber et al., 2011). Although the review by Gerber et al. (2011) suggested that longer acculturated individuals engaged in higher amounts of LTPA, it is difficult to show a significant relationship as the context of individual cases vary considerably. Even in similar contexts, there are variations in each individual's process of acculturation (Berry et al., 2011) and cultural identification (e.g., Nguyen & Benet-Martínez, 2007). Amongst other variables, differences in religion, geographic location, reasons for migration and family situation make almost every migration case unique. Consequently, the literature on sport and PA

behaviour in CALD migrant communities is equivocal. Currently, there is very little known about how culture and the process of individual acculturation affect sport and PA participation overall, and in turn, impact the health and wellbeing of resettled CALD migrants.

The aim of this literature review was to present an exhaustive summary of updated and recent research relating to sport and PA participation in CALD migrant populations. In an attempt to interpret contextual meaning of the various correlates by identifying and classifying them through a meaningful framework; the social ecological model (Sallis, Bauman, & Pratt, 1998) was used in this review. Previous studies have adopted a similar framework for reviewing PA correlates, identifying individual/personal, social and environmental levels of classification (e.g., Bauman et al., 2012; Cleland, Ball, King, & Crawford, 2012; Fleury & Lee, 2006; Trost et al., 2002). Building on other keystone review papers (Caperchione et al., 2009a; Gerber et al., 2011), this review pays particular attention to cultural variables and migration experiences as correlates of sport and PA participation, and aims to shed light on how researchers address these concepts. It is central to this PhD project overall that the review delivers a meaningful overview of the current knowledge in this field, paying particular attention to how cultural variables are represented in the literature. This specifically addresses the first outcome of this research project, and provides a knowledge foundation to prospective studies aiming to explore the specific cultural variables of sport and PA participation of Karen refugees.

2.2 METHODS

2.2.1 Literature search

A systematic search, in accordance with PRISMA (Preferred Reporting Items for Systematic reviews and Meta-Analyses) guidelines (Moher, Liberati, Tetzlaff, & Altman, 2009), of the international literature was performed to identify studies that discussed the correlates of sport and PA participation in CALD populations as the primary focus. Studies that addressed sport and/or PA alongside other variables such as nutrition or health behaviour were excluded. Peer-reviewed papers and book chapters published since 1990 (inclusive) and written in English were accessed via EBSCO, PubMed, Cochrane and Informit databases. The search began in March, 2012 as part of Study 1 of this project, and was updated with latest relevant papers in January, 2015; prior to submission of the thesis. The databases were searched using combinations of the keywords: physical activity, exercise, sport, minority, CALD, newly arrived, migrant and refugee with participate, involve, uptake, engage, join, take part, enter, play, maintain, reason, determine, demographic, correlates, barrier, obstacle, discourage, limit, prevent, restrict, difficult, and drop-out. Specifically, physical activity, exercise, and sport searches were combined with all combinations of the migrant descriptors and participation descriptors. The truncation symbol was added to the most basic word stem for each keyword to ensure all associated terms were included in the search. Due to the diversity of measures used throughout the literature, a systematic review was conducted and not a meta-analysis. The total number of papers found through all search combinations in 2012 was 7,708. Selection of

papers identified by the initial database search was conducted in three phases (detailed below). Five additional papers were included in the review after updating in 2015 (the ‘update’ phase).

2.2.2 Selection of literature

Phase I

All retrieved papers were reviewed independently by three researchers (TO’D, LB, RE) based on the title of the paper and the inclusion and exclusion criteria outlined in Table 2.1.

Table 2.1 Exclusion and inclusion criteria

Exclusion Criteria	Inclusion Criteria
Participants are under 18 years old	Published 1990 – February 2014
No other specification as to the type of ethnicity was used other than ‘white’, ‘black’ and/or ‘others’	Scholarly literature (peer reviewed or Government reports)
Participants were solely African American and/or Native American	Focus on immigrant or migrant populations
Study designs based on commentaries of the literature (opinion articles)	Focus on physical activity, exercise and/or sport
Abstracts, dissertations or conference proceedings	Participants are identified as culturally diverse groups who are experiencing, or have experienced, migration
Published in a language other than English	
Ethnicity of participants was used as a control variable only	
Participants are Indigenous to the country such as Australian Aboriginals, Canadian Aboriginals and Native Americans	
Participants identified as having a medical condition such as diabetes, cancer, hypertension, cardiovascular disease, mental illness, physical disabilities and/or rehabilitation	

The focus of this review was on CALD migrant populations who are culturally and linguistically diverse to the native or host country. Indigenous populations such as Australian Aboriginals, Canadian Aboriginals or Native Americans who may fit into the CALD category were excluded from this review as they are not perceived as recent migrants or experiencing resettlement. In addition, African American populations were excluded from this review as they have no linguistic diversity to Anglo-Americans and have been settled in the USA for several generations. As such, there are many dissimilarities between this group and recent migrant or refugee groups. In instances where the migration status of the population was not specified, for example, some Hispanic populations in the United States may have migrated several generations ago; studies were nevertheless included in the review. The decision to include these studies was based on the perception that this area is relatively vague and the inclusion of these studies may still provide researchers with an opportunity to gain a broader understanding of how this topic is commonly addressed in research. Also based on the same rationale, both qualitative and quantitative studies were included in the review regardless of the study design. It was decided that qualitative studies again would provide an opportunity to obtain more detailed information on the topic. Unlike the systematic review conducted by Gerber et al. (2011) that did not include studies assessing occupational physical activity (OPA), this review did include studies measuring OPA, as it may be an important variable impacting the amount or type of other PA CALD individuals participate in. Furthermore, recent research has

highlighted the negative health effects of daily sedentary behaviour and prolonged sitting (Dunstan et al., 2012; Gardiner et al., 2011), and the new Australian Government Physical Activity and Sedentary Behaviour Guidelines call for minimisation of prolonged sitting by frequently breaking up periods of inactivity (Australian Government, 2014). Thus, obtaining information on OPA in CALD communities may be beneficial in gaining an overall understanding of duration of prolonged sitting and sedentary behaviours. Review papers were not included as part of this literature review, however it was important to identify them and include them as part of the reference list search, and for retrieval of additional relevant studies.

Based on title selection in phase one, 895 titles were selected and after removing duplicates, 377 papers were considered for further review (Figure 2.1).

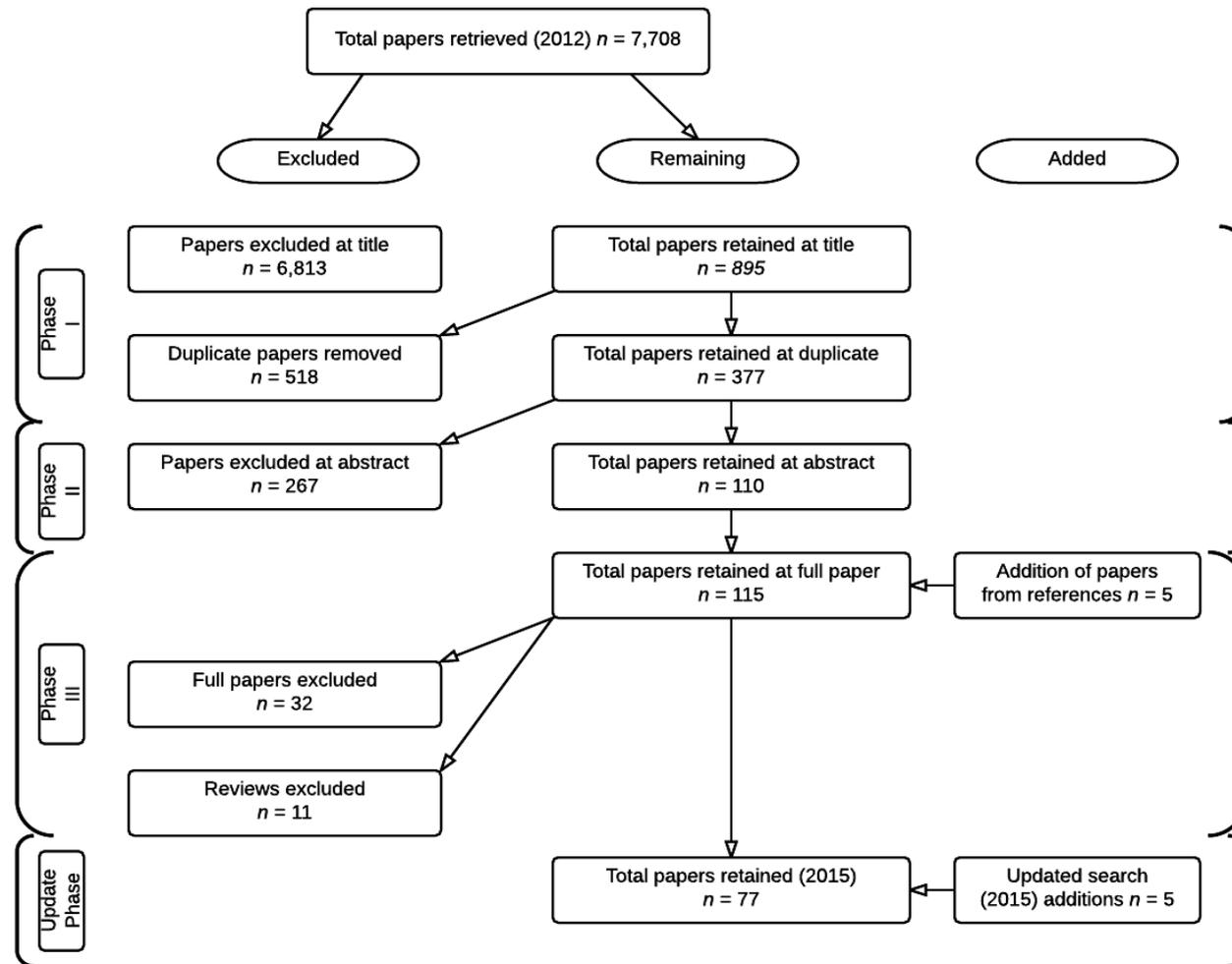


Figure 2.1 Outline of paper exclusion and selection at literature search

Phase II

During the second phase, abstracts of the remaining studies were examined independently by two researchers (TO'D, LB) and included for review based on the criteria in Table 1. Where there was no agreement regarding the inclusion of a particular paper (< 10% of papers), consensus was reached through discussion and re-reading of the abstract. This process resulted in a total of 267 articles being excluded from the review.

Phase III

The remaining publications (N=110) were read independently by two researchers (TO'D and LB). The reference lists and leading author websites and publication lists were scanned and 5 additional papers were included in this stage of the review. Of 115 papers read in full, 32 were excluded based on the exclusion criteria outlined in Table 2.1.

The final 83 studies were categorised according to the type of study (review, intervention, quantitative and qualitative) and the review articles were separated and used to contextualise the findings of the original research reviewed. After excluding the review articles, the number of papers selected for review after the three initial phases was 72. During the update phase, 5 extra papers were added, and a final total of 77 papers were included in this review. Given the scarcity of intervention research conducted with CALD groups and the breadth of the

migrant populations studied, no formal assessment of methodological quality was conducted in order to select papers.

2.3 RESULTS

Of the 77 papers included in the systematic review, 52 were quantitative, 19 were qualitative studies and 6 were interventions. The intervention studies consisted of 4 randomized controlled trials and 2 which were descriptive and program evaluations. Of the qualitative studies ($n = 19$), 10 were focus groups, 7 were interviews with one of those using accelerometer data together with interviews (Curry, Duda, & Thompson, 2015), and 2 were case studies. Of the quantitative studies ($n = 52$) 33 were surveys or questionnaires, 14 were descriptive, 2 included self-reported information, 2 included use of accelerometers, and one was descriptive and used both self-reported and accelerometer information. The majority of the studies were from the United States of America accounting for 67% of the papers, 10% were from Australia, 6% from Canada, 6% from the United Kingdom and 2% from France. There was one study each from Singapore, Norway, Netherlands, Denmark, Germany, Sweden and New Zealand.

A total of 44 different correlates were identified in the reviewed papers. These correlates were grouped into four higher order themes in accordance with the social ecological model; acculturation, demographic, psychosocial and environmental/ organisational. The overview of themes and correlates is

presented in Table 2.2 (detailed characteristics of each study are presented in Appendix A).

Table 2.2 Summary of important correlates of sport and physical activity

Correlates of Sport and Physical Activity	Studies Supportive	Studies Not Supportive	Explanation
<i>Acculturation/Immigration</i>			
Acculturation	(Amara & Henry, 2010s; August & Sorkin, 2011; Bungum & Morrow Jr, 2000; Dergance, Mouton, Lichtenstein, & Hazuda, 2005; Hofstetter et al., 2008; Hosper, Nierkens, vanValkengoed, & Stronks, 2008s; Jurkowski, Mosquera, & Ramos, 2010; Marquez, Neighbors, & Bustamante, 2010; Méjean, Traissac, Eymard-Duvernay, Delpeuch, & Maire, 2009; Taylor, 2004s; Walker, Caperchione, Mummery, & Chau, 2015; Wolin, Colditz, Stoddard, Emmons, & Sorensen, 2006)	(Koca & Lapa, 2014; Marquez et al., 2011; Yang et al., 2007)	Physical activity and sport was seen as a means of acculturation (Amara & Henry, 2010s). Acculturation was generally associated with higher physical activity (Wolin et al., 2006).
Time in Country	(Méjean et al., 2009; Tremblay, Bryan, Pérez, Ardern, & Katzmarzyk, 2006)	(Koca & Lapa, 2014)	A longer time in the country was associated with higher physical activity.
Generation	(Afable-Munsuz, Ponce, Rodriguez, & Perez-Stable, 2010; Wolin et al., 2006)	(Koca & Lapa, 2014)	Varied effects on different ethnic groups (Afable-Munsuz et al., 2010), but in general physical activity increased with generational status.
Home Country	(Barnes & Almasy, 2005; Jurkowski et al., 2010; Stodolska & Shinew, 2010)		Different routines in new country (Stodolska & Shinew, 2010) and the activity usually performed in the home country predicted

Citizenship	(Ahmed et al., 2005)		physical activity in current country. Citizenship in the new country was associated with increased physical activity.
Reason for Immigration	(Caperchione, Kolt, Tennent, & Mummery, 2011)		Refugee populations suffered from post-traumatic stress which was associated with less physical activity (Caperchione et al., 2011).
Demographic			
Age	(August & Sorkin, 2011; Bungum & Morrow Jr, 2000; Jönsson, Palmér, Ohlsson, Sundquist, & Sundquist, 2012; Jurkowski et al., 2010; Khaing Nang et al., 2010; Koca & Lapa, 2014; Magoc, Tomaka, & Thompson, 2012; Marquez et al., 2011; Marshall et al., 2007; Mâsse & Anderson, 2003; Mier, Ory, Zhan, Wang, & Burdine, 2007; Ng, Rush, He, & Irwin, 2007; Perez, Ritvo, Brown, Holowaty, & Ardern, 2011; Saint Onge & Krueger, 2011; Seo & Torabi, 2007; Sternfeld, Cauley, Harlow, Liu, & Lee, 2000; Swenson, Marshall, Mikulich-Gilbertson, Baxter, & Morgenstern, 2005; Wilcox, Castro, King, Housemann, & Brownson, 2000)	(Dergance et al., 2005)	In a midlife sample (40-55 yrs), older women were more active compared to younger women (Sternfeld et al., 2000). However, younger age (Marshall et al., 2007; Seo & Torabi, 2007; Swenson et al., 2005) and younger migration age (Jönsson et al., 2012) is typically associated with more physical activity.
Gender	(Bryan, Tremblay, Perez, Ardern, & Katzmarzyk, 2006; Dergance et	(Bird, Radermacher, et al., 2009; Bungum &	Gender is not a uniform effect (Suminski et al.,

Employment	<p>al., 2005; Hayes et al., 2002; He & Baker, 2005; Khaing Nang et al., 2010; Koca & Lapa, 2014; Magoc et al., 2012; Marquez, Bustamante, McAuley, & Roberts, 2008; Marquez et al., 2011; Marshall et al., 2007; Mier et al., 2007; Ng et al., 2007; Saint Onge & Krueger, 2011; Seo & Torabi, 2007; Suminski, Petosa, Utter, & Zhang, 2002; Swenson et al., 2005; Wolin et al., 2006)</p> <p>(Ayala, Gammalgard, Sallis, & Elder, 2011; He & Baker, 2005; Khaing Nang et al., 2010; Lee & Im, 2010; López, Bryant, & McDermott, 2008; Marquez et al., 2010; Marshall et al., 2007; Seo & Torabi, 2007; Sternfeld et al., 2000; Wolin et al., 2006)</p>	<p>Morrow Jr, 2000; Daniel, Wilbur, Marquez, & Farran, 2013; Sinnapah, Antoine-Jonville, Donnet, & Hue, 2009; Tremblay et al., 2006)</p>	<p>2002) but in general males do more leisure time physical activity (LTPA) than females (Bryan et al., 2006; He & Baker, 2005; Mier et al., 2007).</p> <p>Type of job and hours worked predicted LTPA, occupational physical activity (OPA) and household physical activity (HPA) differently (Ayala et al., 2011). For example, blue collar workers engage in more OPA and non-workers engage in more HPA.</p>
Education	<p>(Bungum & Morrow Jr, 2000; He & Baker, 2005; Jurkowski et al., 2010; Khaing Nang et al., 2010; López et al., 2008; Marshall et al., 2007; Mâsse & Anderson, 2003; Ransdell & Wells, 1998; Saint Onge & Krueger, 2011; Seo & Torabi, 2007; Sternfeld et al., 2000; Yang et al., 2007)</p>	<p>(Dergance et al., 2005; Koca & Lapa, 2014)</p>	<p>Generally, greater education was associated with more physical activity (Brownson et al., 2000; He & Baker, 2005; Ransdell & Wells, 1998).</p>
Income	<p>(Dergance et al., 2005; Khaing Nang et al., 2010; Marshall et al., 2007; Mâsse & Anderson, 2003; Seo & Torabi, 2007; Wolin et al.,</p>	<p>(Suminski, Pyle, & Taylor, 2009)</p>	<p>In general higher income is associated with higher physical activity (Dergance et al., 2005; Khaing Nang</p>

	2006; Yang et al., 2007)		et al., 2010; Wolin et al., 2006) but inverse relationships do exist for some groups (Yang et al., 2007).
Living arrangements/marital Status	(Hofstetter et al., 2008; Koca & Lapa, 2014; Ransdell & Wells, 1998; Seo & Torabi, 2007; Sternfeld et al., 2000; Yang et al., 2007)		Being unmarried was associated with higher physical activity for women (Hofstetter et al., 2008; Sternfeld et al., 2000). Women (Bird, Kurowski, et al., 2009) and men not living or cohabiting with their partners were more likely to participate in physical activity.
Rural-metropolitan	(Wilcox et al., 2000)		Rural women were less active than urban women (Wilcox et al., 2000).
Host country	(Koca & Lapa, 2014)		Turkish migrants in Germany participated in less low intensity physical activity and more high intensity physical activity than Turkish migrants in England (Koca & Lapa, 2014)
Psychosocial			
Religious Considerations	(Amara & Henry, 2010s; Guerin et al., 2003; Jurkowski et al., 2010; Mathews et al., 2010; Maxwell & Taylor, 2010s; Purath, Van Son, & Corbett, 2011; Snape & Binks, 2008; Taylor & Toohey, 2001s;	(Hacısoftaoğlu & Pfister, 2012s)	Belief in God and faith not influential in physical activity pursuits for some (Hacısoftaoğlu & Pfister, 2012s), but significant influence for others in

Walseth, 2006bs)

positive (Amara & Henry, 2010s; Purath et al., 2011) and prohibitive ways (Mathews et al., 2010; Snape & Binks, 2008s). Sexualisation of women and acting in a non-feminine manner were barriers (Walseth, 2006bs). Uniform requirements based on religious customs were inappropriate (Taylor & Toohey, 2001s). Privacy was a key concern for Islamic groups (Guerin et al., 2003; Snape & Binks, 2008s). Attendance at religious services was associated with more physical activity in the Latino population (Jurkowski et al., 2010).

Cultural Norms

(Caperchione et al., 2011; Curry et al., 2015; Eyler et al., 1998; Eyler, Matson-Koffman, et al., 2002; Hacısoftaoğlu & Pfister, 2012s; Maxwell & Taylor, 2010s; Snape & Binks, 2008s; Walseth, 2006bs)

(Dergance et al., 2005)

Exercise and sport is not valued (Eyler et al., 1998; Hacısoftaoğlu & Pfister, 2012s) but being physically active can be considered normal, especially for women (Caperchione et al., 2011). Participation can be viewed as a neglect of family duties (Snape & Binks, 2008s) or culturally inappropriate (Walseth, 2006bs). Sport and being active can be viewed as not

Perceptions of ability to participate/self-efficacy	(Albright et al., 2005*; Castro, Sallis, Hickmann, Lee, & Chen, 1999*; Eyler et al., 2003; Hosper, Nierkens, et al., 2008s; Marquez & McAuley, 2006; Shifflett, Buliavac, Howd, O'Brien, & Seifert, 1991; Snape & Binks, 2008s; Yang et al., 2007)	(Borschmann et al., 2010*; Dergance et al., 2005)	feminine in some cultures (e.g., Latino) (Evenson, Sarmiento, Macon, Tawney, & Ammerman, 2002). Not always a positive correlate for every group (Eyler et al., 2003) but widely reported to be a positive correlate of physical activity.
Family Commitments	(Caperchione et al., 2011; Evenson et al., 2002; Eyler et al., 1998; Eyler, Matson-Koffman, et al., 2002; Guerin et al., 2003)		Taking care of children and family members can inhibit physical activity for women (Guerin et al., 2003).
Social Support	(Albright et al., 2005*; Belza et al., 2004; Caperchione et al., 2011; Castro et al., 1999*; Dergance et al., 2003; Evenson et al., 2002; Eyler et al., 1998; Eyler et al., 1999; Eyler, Matson-Koffman, et al., 2002; Eyler et al., 2003; Hosper, Nierkens, et al., 2008s; Marquez & McAuley, 2006; Mathews et al., 2010; Maxwell & Taylor, 2010s; Perez et al., 2011; Taylor, 2004s; Taylor et al., 2008)		Husband support can be important for women (Caperchione et al., 2011; Evenson et al., 2002), likewise having role models and motivational people is a positive correlate of physical activity (Eyler et al., 1998). Seeing other people exercising in the community is a positive correlate of physical activity.
Attitudes	(López et al., 2008; Magoc et al., 2012; Marquez & McAuley, 2006; Mâsse & Anderson, 2003; Taylor & Toohey, 2001s)		Perceptions of the amount of physical activity that peers do can influence physical activity (López et al., 2008; Mâsse &

			Anderson, 2003) and perceptions of the importance of exercise is a positive predictor of physical activity (Magoc et al., 2012; Marquez & McAuley, 2006).
Readiness to Change	(Albright et al., 2005*; Barnes & Almasy, 2005; Bull, Eyster, King, & Brownson, 2001; Mâsse & Anderson, 2003)		Differences amongst ethnic groups in regards to the level of correspondence between readiness to change stage and reported physical activity (Bull et al., 2001).
Knowledge	(Caperchione et al., 2011; Dergance et al., 2003; Eyster et al., 1998; Eyster, Matson-Koffman, et al., 2002; Mathews et al., 2010; Stewart, Gillis, et al., 2006)		Knowing about exercise, sport and participation and its relationship to health was an important predictor of physical activity.
Motivation	(Albright et al., 2005*; Belza et al., 2004; Bird, Kurowski, et al., 2009; Bird, Radermacher, et al., 2009; Bird et al., 2010; Caperchione et al., 2011; Curry et al., 2015; Eyster et al., 1998; Hosper, Deutekom, & Stronks, 2008; Mathews et al., 2010; Shifflett et al., 1991; Stewart, Gillis, et al., 2006; Swenson et al., 2005; Taylor, 2004s; Walseth, 2006bs; Yang et al., 2007)		Commitment to health and an active lifestyle (Shifflett et al., 1991) and general motivation were positive correlates of physical activity. Greater number of motives cited by individuals was associated with increased physical activity (Hosper, Deutekom, et al., 2008; Yang et al., 2007).
Enjoyment/Interest	(Bird, Kurowski, et al., 2009; Bird et al., 2010; Castro et al., 1999*; Dergance et al., 2003; Taylor & Toohey, 2001s)	(Dergance et al., 2003)	Greater enjoyment and interest in physical activity were positive predictors of physical activity.

General Health	(Bird, Kurowski, et al., 2009; Bird, Radermacher, et al., 2009; Caperchione et al., 2011; Dergance et al., 2003; Dergance et al., 2005; Eyler et al., 1998; Eyler, Matson-Koffman, et al., 2002; Hayes et al., 2002; Hosper, Nierkens, et al., 2008s; Lee & Im, 2010; Magoc et al., 2012; Mâsse & Anderson, 2003; Mathews et al., 2010; Mier et al., 2007; Seo & Torabi, 2007; Sternfeld et al., 2000)	(Bungum & Morrow Jr, 2000; Ransdell & Wells, 1998)	Being healthy or unhealthy/ overweight is a significant predictor of physical activity (e.g., Mathews et al., 2010). Mental health including depression and cognitive function have a negative association with physical activity (Dergance et al., 2005)
Previous Physical Activity	(Caperchione et al., 2011; Eyler, Matson-Koffman, et al., 2002; Hacısoftaoğlu & Pfister, 2012s; Ng et al., 2007; Shifflett et al., 1991; Suminski et al., 2002; Taylor, 2004s)		Having played sport or exercised previously was associated with higher physical activity. Individuals who were previously active before immigrating were more likely to be active in the current country (Ng et al., 2007)
Age issues	(Eyler et al., 1998; Guerin et al., 2003; Mathews et al., 2010; Stewart, Gillis, et al., 2006; Taylor et al., 2008)		Falls prevention was a motivator, however, it was sometimes viewed as inappropriate for older people to exercise (Taylor et al., 2008). Younger and older people have different preferences (Guerin et al., 2003)
Self-esteem	(Dergance et al., 2005; Eyler et al., 1998; Hickmann, Lee, Sallis, Castro, & Chen, 1999*)		Self-esteem was a positive correlate of physical activity
Self-conscious	(Bird, Kurowski, et al., 2009; Mathews et al., 2010; Snape &	(Dergance et al., 2003)	Feeling self-conscious and not knowing how to use the

	Binks, 2008s; Taylor, 2004s)	facility (Snape & Binks, 2008s) or knowing the rules of the game (Taylor, 2004s) was associated with lower physical activity.
Feelings of Isolation	(Evenson et al., 2002; Taylor & Toohey, 2001s)	Feeling alone in the community was associated with lower physical activity.
Number of Barriers	(Albright et al., 2005*; Bird, Kurowski, et al., 2009; Castro et al., 1999*; Hosper, Nierkens, et al., 2008s; Mâsse & Anderson, 2003; Yang et al., 2007)	A greater number of perceived barriers was associated with lower physical activity.
Fatigue	(Bird, Kurowski, et al., 2009; Caperchione et al., 2011; Dergance et al., 2003; Eyler, Matson-Koffman, et al., 2002)	Perceptions of fatigue and a lack of energy were associated with lower physical activity.
<i>Environmental/ Organisational</i>		
Access to Information	(Caperchione et al., 2011*; Evenson et al., 2002; López et al., 2008; Stewart, Gillis, et al., 2006)	Lack of English proficiency (Evenson et al., 2002), ability to find information and ease of access to this information were significant correlates of physical activity.
Lack of Time	(Bird, Kurowski, et al., 2009; Caperchione et al., 2011; Evenson et al., 2002; Eyler et al., 1998; Mathews et al., 2010; Snape & Binks, 2008s; Stewart, Gillis, et al., 2006; Taylor et al., 2008)	No time because of childcare, family (Evenson et al., 2002), work and other commitments.
Language	(Caperchione et al., 2011; Evenson et al., 2002; Eyler et al.,	Language difficulties in general were associated

Type of activities	<p>1998; Eyler, Matson-Koffman, et al., 2002; Guerin et al., 2003; Perez et al., 2011; Stodolska & Shiness, 2010; Taylor, 2004s)</p> <p>(Daniel et al., 2013; Hall, Kuga, & Jones, 2002s; Hayes et al., 2002; Khaing Nang et al., 2010; Mathews et al., 2010; Saint Onge & Krueger, 2011; Shifflett et al., 1991; Snape & Binks, 2008s; Swenson et al., 2005; Taylor et al., 2008)</p>	<p>with lower physical activity.</p> <p>Senior specific programs for CALD groups (Mathews et al., 2010) and having an appealing range of activities offered were necessary to engage the community (Snape & Binks, 2008s). More commitment to HPA and OPA, rather than LTPA, for some ethnic groups (Daniel et al., 2013; Khaing Nang et al., 2010).</p>
Safety	<p>(Barnes & Almasy, 2005; Belza et al., 2004; Bird, Radermacher, et al., 2009; Bird et al., 2010; Bungum & Morrow Jr, 2000; Caperchione et al., 2011; Evenson et al., 2002; Eyler, Matson-Koffman, et al., 2002; Guerin et al., 2003; López et al., 2008; Mathews et al., 2010; Snape & Binks, 2008s; Stodolska & Shiness, 2010; Taylor et al., 2008)</p>	<p>Crime and road safety were significant negative correlates to physical activity.</p>
Geographical isolation	<p>(Belza et al., 2004; Caperchione et al., 2011; Eyler, Matson-Koffman, et al., 2002)</p>	<p>Facilities and programs being too far from home (irrespective of transport) was a negative correlate.</p>
Unfamiliarity with environment	<p>(Barnes & Almasy, 2005; Taylor et al., 2008)</p>	<p>Feelings of discomfort and unfamiliarity in the local environment were negative correlates of physical activity.</p>

Walkability	(Bird, Radermacher, et al., 2009; Bungum & Morrow Jr, 2000)		The aesthetic appeal of walking was associated with physical activity.
Facilities	(Barnes & Almasy, 2005; Belza et al., 2004; Bungum & Morrow Jr, 2000; Dergance et al., 2003; Evenson et al., 2002; Guerin et al., 2003*; López et al., 2008; Mathews et al., 2010; Stodolska & Shinew, 2010; Suminski et al., 2009; Taylor & Toohey, 2001s)	(Hacısoftaoğlu & Pfister, 2012s)	In general facilities were unavailable and inappropriate, however, for some migrants facilities were seen as better (Hacısoftaoğlu & Pfister, 2012s). Inappropriate opening hours (Mathews et al., 2010) and poorly maintained facilities (Stodolska & Shinew, 2010) were prohibitive.
Weather	(Belza et al., 2004; Bird, Radermacher, et al., 2009; Caperchione et al., 2011; Eyler et al., 1998; Eyler, Matson-Koffman, et al., 2002; Hall et al., 2002s; Hosper, Nierkens, et al., 2008s; Mathews et al., 2010; Taylor et al., 2008)		Weather is a correlate of physical activity.
Transport	(Belza et al., 2004; Evenson et al., 2002; Eyler et al., 1998; Guerin et al., 2003; Mathews et al., 2010; Perez et al., 2011; Stodolska & Shinew, 2010)		Greater access to transport was associated with more physical activity.
Others' behaviour	(Amara & Henry, 2010s; Evenson et al., 2002; Eyler et al., 1998; Guerin et al., 2003; Stodolska & Shinew, 2010; Taylor & Toohey, 2001s)		Women felt subject to stereotyping (Taylor & Toohey, 2001s) and discrimination in the health and fitness setting.
Cost	(Belza et al., 2004; Caperchione et		Cost is a correlate of

Organisational structure	<p>al., 2011; Evenson et al., 2002; Eyler et al., 1998; Eyler, Matson-Koffman, et al., 2002; Guerin et al., 2003; Mathews et al., 2010; Taylor et al., 2008)</p> <p>(Maxwell & Taylor, 2010s; Snape & Binks, 2008s; Stewart, Gillis, et al., 2006*; Taylor & Toohey, 2001s)</p>	physical activity.
		<p>Facilities and organisational structures developed in consultation with the community (Maxwell & Taylor, 2010s; Snape & Binks, 2008s). Bilingual support is a correlate of physical activity (Snape & Binks, 2008s).</p>

* *Denotes studies that were interventions or randomly controlled trials*

^s *Denotes studies that focused exclusively on sports or had a specific focus on sport alongside physical activity*

Most studies were a-theoretical in nature (72%). Of the 22 studies that explicitly identified a theoretical foundation, 8 used the social ecological model (Sallis et al., 1998), 5 used the transtheoretical model / stage of change (Prochaska & DiClemente, 1984), and 9 other papers highlighted learning theory, social support, segmented assimilation theory, feminist perspective, social capital, grounded theory, four-mode acculturation framework and the concept of supply and individual disposition.

2.3.1 Samples

For the most part cultural backgrounds of participants were categorised similarly across the studies (e.g., Latino, Korean or Bosnian), however differences in cultural group allocation still existed which made comparisons between cultural groups across studies difficult. For example, some studies categorised participants into large cultural groups such as 'Asian' or 'Black', some only reported country of birth, and others categorised regions or specific groups such as South East Asian, South Asian Indian (Indian born) and Caribbean black or African black. Moreover, some studies clustered Asian/Pacific Islander as one cultural group whilst others separated Pacific Islander and Asian.

Of the papers that specified cultural groups ($n = 74$), 35% were Latino, Hispanic or Mexican only (excluding non-Hispanic white, non-Hispanic black, African American or Native American groups). Other cultural groups included were Chinese (11%), Asian (10%), South Asian (8%), Vietnamese (7%), Muslim (6%), Korean, Filipino, Pacific Islander, Asian/Pacific Islander, East/South East Asian,

Italian, Macedonian, Turkish (4%), Bosnian, West Asian, African, Croatian, Greek, Maltese, Asian Indian (3%), Arabic, Sudanese, Iranian, Cuban, Slavic, Indian, Pakistani, Bangladeshi, Caribbean, Moroccan, Tunisian, Colombian, Malay, Japanese, Polish, Serbian, Middle Eastern Finnish, Iraqi, Chilean and Somali (1%). The 3 studies that did not specify a cultural group used classifications such as multiethnic (Albright et al., 2005) and 'predominantly Hispanic' (Magoc et al., 2012) to describe their populations.

Of the studies that specified the number of participants ($N = 71$), this ranged from 5 to 171,513. The average number of participants in the quantitative studies was 13,283. The average age of participants in the quantitative studies that specified age ($N = 25$) was 47.1 years. In the qualitative studies the average number of participants was 67. Eight qualitative studies specified the age or mean age of their participants, with the average age of participants being 53.6 years. The average number of participants in the intervention studies was 111. Only 3 intervention studies specified the age of participants with the average age being 45 years.

2.3.2 Measures

Physical activity measures most commonly used in the quantitative studies (either in English or translated) included the International Physical Activity Questionnaire (IPAQ) (32%), the Behavioral Risk Factor Surveillance System (BRFSS) (Gentry et al., 1985) (15%) and the other studies used accelerometers,

Self Report of Physical Activity questionnaire (Jackson & Ross, 1997), Physical Activity History, Kaiser Physical Activity Survey (Ainsworth, Sternfeld, Richardson, & Jackson, 2000), Community Health Activity Model Program for Seniors (CHAMPS) Physical Activity Questionnaire (Stewart et al., 2001), San Diego Health and Exercise Questionnaire (Crespo, Keteyian, Heath, & Sempos, 1996), EPIC Physical Activity Questionnaire, Godin-LTPA Questionnaire (Godin, Jobin, & Bouillon, 1985) and the Purposes for Engaging in Physical Activity Scale (Steinhardt, Jewett, & Mullan, 1988).

A range of measures were used to identify barriers and motivators for PA and sport including the St. Louis Scale – Measuring Physical Activity in Communities (Brownson, Chang, Eyster, & Ainsworth, 2004), Neighbourhood Environment Walkability Scale (Saelens, Sallis, Black, & Chen, 2003), Environmental Supports for Physical Activity Scale (Ainsworth, Bassett, et al., 2000) and the Exercise Self-Efficacy Scale (Bandura, 2006). Barriers and motivators were also identified through open-ended questioning in small-group and individual interviews.

Interviewer administered questionnaires were common throughout studies that surveyed non-English proficient populations. Likewise, direct translations of English language questionnaires were also used in these groups. Five studies reported back-translation and language specific validation of English language questionnaires for the target language population. In the qualitative studies, interviews were conducted in the native language of the participants and translated for analysis.

2.3.3 Correlates

The results indicate that some positive correlates of sport and PA for CALD migrants are generic, such as self-efficacy, social support, education and motivation. Other correlates are unique to CALD migrant groups and include acculturation, citizenship and command of the English language. From these correlates; clear factors emerged in terms of the demographic, psychosocial and environmental/organisational correlates identified (Table 2.2). Themes of correlates that emerged from the review will be discussed below.

2.3.3.1 Acculturation

Acculturation was measured differently across the papers reviewed. Some studies measured acculturation on the basis of proxies such as English language proficiency or preference only (August & Sorkin, 2011; Bungum, Thompson-Robinson, Moonie, & Lounsbery, 2011), whilst others utilised culturally specific or comprehensive measures of acculturation assessing cultural orientation, identity and attitudes, as well as language (Hosper, Nierkens, et al., 2008; Yang et al., 2007). One study utilised Berry's (Berry, 1974) four-point framework of acculturation including assimilation, separation, integration and marginalization (Walker et al., 2015).

Although measures of acculturation varied, the review suggests that greater acculturation was associated with increased participation in sports and PA, and in

some studies, PA and sport were seen as a means of acculturation. Specifically, a longer time in the country (10yrs +) (Méjean et al., 2009; Tremblay et al., 2006), later generations (being born and having parents born in the new country) (Afable-Munsuz et al., 2010) and citizenship in the new country (Ahmed et al., 2005) also suggested an association with higher participation rates. Studies that evaluated reasons for immigration found that refugee populations suffered post-traumatic stress and were not considering or actively participating in PA (Barnes & Almas, 2005; Caperchione et al., 2011) . Generally, the type of physical activities performed in the home country predicted physical activities in the new country (Barnes & Almas, 2005; Jurkowski et al., 2010; Stodolska & Shinew, 2010). One study found that refugees were more active in their home country, reporting less use of cars and more walking (Barnes & Almas, 2005). Due to a lack of places to exercise, including facilities and outdoor settings, these participants reported being less physically active in the new country (Barnes & Almas, 2005).

A number of studies used acculturation scales developed specifically for some cultural groups (Yang et al., 2007) (e.g., Suinn-Lew Asian Self Identity Acculturation Scale; (Suinn, 1987). The use of such scales may be an appropriate method for studying large groups in common areas; however the multitude of variables regarding culture, relocation and resettlement countries makes it difficult to create specific scales for all groups in all locations. Acculturation scales accounting for such variables would need to be validated for different cultural groups. A widespread reliance on general acculturation scales

may lead to a lack of understanding in regards to the interaction of cultural and migration differences and a tendency to cluster comparable populations who are inherently different. For example, in instances where individuals identify with the same ethnic group such as Latino, but are of different countries of origin such as Puerto Rico and the Dominican Republic (Jurkowski et al., 2010), a Latino acculturation scale may not detect some of the integral differences between the two groups.

In general, measuring acculturation or cultural impacts and shifts was not broadly addressed. Very few studies evaluated confounding factors such as time in current country (Méjean et al., 2009; Tremblay et al., 2006), experiences in the home country (Barnes & Almas, 2005; Jurkowski et al., 2010; Stodolska & Shinew, 2010) such as levels of PA in the home country (Barnes & Almas, 2005) and reasons for immigration (Caperchione et al., 2011). Culture and the migration experience was rarely addressed or measured explicitly, even when participants were first generation migrants to a host country (Daniel et al., 2013; Jönsson et al., 2012). The results reveal a lack of research attention to cultural and acculturation factors compared to many of the other correlates investigated. This lack of attention to cultural variables may be due to the concept of acculturation being poorly defined and loosely used in this space of research. Acculturation most likely acts as a filter and provides context and understanding for all other correlates of participation. Thus, acculturation factors should be considered and applied specifically, as Walker et al. (2015) did in their recent

study examining the LTPA of a South Asian population living in Canada. The authors used a four-mode bidimensional acculturation framework to better understand social and cultural factors associated with LTPA in the target group.

2.3.3.2 *Demographic*

The demographic correlates of sport and PA participation were mostly consistent across the literature with the general trends suggesting that males participate in more leisure time and moderate to high PA than females (Bryan et al., 2006; He & Baker, 2005; Koca & Lapa, 2014; Mier et al., 2007). There were a small number of studies that did not find gender differences (Bird, Radermacher, et al., 2009; Bungum et al., 2011; Daniel et al., 2013; Sinnapah et al., 2009; Tremblay et al., 2006). In a study of older people (*mean age = 72 years*) from seven different cultural groups, there was no difference found between the reported amount of PA by men and women indicating that gender was not a significant correlate of PA in this population (Bird, Radermacher, et al., 2009). Being unmarried (Hofstetter et al., 2008; Sternfeld et al., 2000) or living alone (Bird, Kurowski, et al., 2009) was associated with higher levels of PA for women. Furthermore, one study found that rural women were less physically active than urban women (Wilcox et al., 2000). Another study found a significant difference in PA between Turkish migrants living in Germany and England, with those in Germany participating in more high intensity PA and less low intensity PA than those in England (Koca & Lapa, 2014). This same study found that migrants who were educated at a high school or lower level were more likely to participate in

PA than those educated at university level; which is untypical compared to other studies in the review. Greater education, higher income, and younger age were generally associated with higher levels of PA and sport participation across the literature, as was the type of occupation (e.g., Marshall et al., 2007). Language was commonly identified as a barrier to participation in sport (Taylor, 2004) and PA (Eyler, Matson-Koffman, et al., 2002; Guerin et al., 2003) and language difficulties interacted significantly with other correlates identified (Stodolska & Shiness, 2010; Taylor, 2004). Blue collar workers expended more energy than white collar or non-workers (Ayala et al., 2011), however non-workers engaged in more house-hold PA than blue and white collar workers (Ayala et al., 2011). One study found that Latinos had more physically active occupations compared with non-Latino black groups and amongst employed individuals (Marquez et al., 2010). In this study, Latinos had the greatest number of individuals reporting no leisure time PA (Marquez et al., 2010).

A large proportion of studies were women-only (e.g., Curry et al., 2015; Jönsson et al., 2012), which is problematic as there is a need to understand the gender dynamics of sports and PA participation in general amongst CALD migrants. It is unknown why women were the major focus of many research initiatives. It could be that Western researchers often focused on CALD migrant women because they may be perceived as being oppressed or restricted compared to women from the West. Women of some cultures and religions also require additional privacy and modesty provisions (e.g., women of Islamic faith), making it more

difficult for them to exercise at traditional facilities. However, both males and females in CALD migrant groups are typically not physically active enough to maintain health benefits (Magoc et al., 2012; Mier et al., 2007). Men are still at risk in terms of health, and warrant equal attention in the research; particularly as longevity for men is typically lower than it is for women (United Nations, 2007). Similarly, focusing on CALD migrant women in isolation of their families may begin to disrupt the cultural gender balance between women and their families, which may include changes in gender roles or power imbalances. Gender, and all other demographic correlates of sport and PA, must be investigated in light of cultural variables to develop a meaningful understanding of the context. Across the literature, this interaction of demographic correlates and culture/acclimation was largely assessed superficially. Gender, employment and living location will certainly be influenced by the culture of the population and the level of adoption of the cultural dynamics of the new community.

2.3.3.3 *Psychosocial*

General psychosocial correlates of sport and PA such as self-efficacy, social support and attitudes were relatively consistent throughout the literature (e.g., Eyler et al., 2003; Hosper, Deutekom, et al., 2008; Magoc et al., 2012). The majority of studies suggest that an individual's perception of their ability to partake in PA (Albright et al., 2005; Castro et al., 1999), higher self-esteem (Hickmann et al., 1999) and lower self-consciousness (Mathews et al., 2010; Snape & Binks, 2008) are strongly associated with increased participation.

However, anomalies do exist. One study found that women from Latina communities were more confident in their abilities to undertake PA but were less likely to meet PA recommendations (Eyler et al., 2003). The author suggests that perhaps external factors such as community and social support may be more critical for adopting PA behaviours than self-confidence in the person for this specific group (Eyler et al., 2003). Perhaps this may reflect differing worldviews based on individualistic (attainment of an individual's personal goals are important sources of wellbeing) and collectivist (social roles and social group functions are important sources of wellbeing) psychological functioning, as discussed in detail by (Oyserman, Coon, & Kemmelmeier, 2002) meta-analysis. Feelings of isolation (Evenson et al., 2002; Taylor & Toohey, 2001), fatigue (e.g., Dergance et al., 2003; Eyler, Matson-Koffman, et al., 2002) and an increased number of barriers (e.g., Albright et al., 2005; Castro et al., 1999) were largely associated with lower PA participation.

Having friends, family members and peers in the community who engaged in PA were also associated with increased participation, acting as support providers and/or role models (Eyler et al., 1998). For women, their husbands' support was an important enabler of PA (Caperchione et al., 2011; Evenson et al., 2002); however taking care of children and family members was an inhibitor (Guerin et al., 2003). This was exacerbated for some groups, such as women from South American countries, who felt cultural pressures to 'sacrifice their personal lives' and be submissive to their families (Stodolska & Shiness, 2010).

Motivation to engage in PA was unsurprisingly associated with PA participation (Swenson et al., 2005; Taylor, 2004). Specific motivators for engaging in sports and PA differed according to cultural group, but some common motivators included maintaining physical health (Caperchione et al., 2011; Curry et al., 2015; Mathews et al., 2010; Walseth, 2006b), managing chronic disease (Belza et al., 2004; Stewart, Gillis, et al., 2006) and socialising (Belza et al., 2004; Bird, Kurowski, et al., 2009; Taylor, 2004). Generally, the greater the number of motives an individual cited, the greater was their participation in sports and PA (Hosper, Deutekom, et al., 2008; Yang et al., 2007). Motivation is intricately associated with acculturation and various cultural dynamics. One study found that the conceptualisation of PA among South Asian women reflected the type and amount of PA they undertook. Participants defined PA as 'keeping busy', which was found to relate to the amount of time they spent being active through house-hold PA (HPA) (Curry et al., 2015). Furthermore, the cultural weighting that is placed on motives such as body image (Renzaho, 2004) and concepts of health and illness vary extensively across cultures (Huff, 1999).

The manner in which cultural norms affected PA varied across cultural groups (Dergance et al., 2003; Saint Onge & Krueger, 2011) and, when addressed, the level of acculturation (August & Sorkin, 2011; Taylor, 2004). For example, some studies demonstrated that sports or PA was not valued favourably in some cultures (Hacisoftaoğlu & Pfister, 2012) or that sport was perceived as non-feminine (Walseth, 2006b). Generally, falls prevention was a motivator for older

participants in some cultural groups, however in other groups, it was viewed that exercise was generally culturally inappropriate for older people (Taylor et al., 2008). Women in some cultural groups reported that PA was closely linked to gender roles and being physically active throughout the day was culturally favourable (Eyler et al., 1998). Furthermore, religious considerations were not influential factors for some groups (Hacisoftaoğlu & Pfister, 2012). A belief in God and religious faith was a positive influence for some groups (e.g., Russian-speaking Slavic) (Purath et al., 2011) and an inhibitive one for others (e.g., Muslim) (Snape & Binks, 2008). These diverse findings indicate the importance of understanding the religious affiliations of the group in question when considering PA in CALD migrants.

Enjoyment, attitudes, and knowledge of sport and PA were also important predictors (Eyler, Matson-Koffman, et al., 2002; Taylor & Toohey, 2001). For example, attitudes to the importance of PA (Magoc et al., 2012; Marquez & McAuley, 2006) and the amount of activity peers were engaged in (Mâsse & Anderson, 2003) influenced PA positively. Moreover, knowledge about sport and PA participation and its relationship to health was a predictor of PA (Dergance et al., 2003; Eyler et al., 1998), as was enjoyment and interest (Castro et al., 1999). One study found that for some Mexican American groups, a lack of enjoyment was not a barrier for PA (Dergance et al., 2003). This review suggests that it is important to consider the cultural values and the values adopted since arriving in

the new country, particularly when considering very personal and value-driven correlates such as attitudes, enjoyment and motivation.

Overall, previous PA experience (e.g., Caperchione et al., 2011; Ng et al., 2007) and general health (e.g., Dergance et al., 2005; Mier et al., 2007) were positive correlates of PA. Lack of good health (Dergance et al., 2003) or having depression had a negative association with PA. On the other hand, one study found that self-rated health status and body mass index (BMI) were not significant predictors of LTPA (Ransdell & Wells, 1998). Moreover, having played sport or being involved in PA previously was associated with higher current PA levels (Ransdell & Wells, 1998). CALD migrants who were more active before migrating were more likely to be active in the new country (Ng et al., 2007). The Transtheoretical Model of Health Behaviour Change was discussed in several papers, indicating that readiness to change was influenced by culture (Prochaska & DiClemente, 1983). Differences amongst ethnic groups were reported with regards to the level of correspondence between readiness to change stages and reported PA. One study found that black women were less likely to be in the active (preparation, action, maintenance) stages of change model than were Hispanics and Native American women (Bull et al., 2001). This model was typically used as a proxy for, or in support of PA participation (Bull et al., 2001). No study assessed the process of changing stage for CALD migrant groups or measured readiness to change over time. It is important for future studies to investigate stage progression towards maintenance and how readiness

to change modifies over time for CALD migrants, and the factors which influence change.

2.3.3.4 *Environmental / Organisational*

There were some common environmental and organisational correlates of sports and PA amongst CALD migrant groups. These included access to information (Caperchione et al., 2011; Evenson et al., 2002; López et al., 2008; Stewart, Gillis, et al., 2006), lack of time (Evenson et al., 2002; Snape & Binks, 2008), safety (Barnes & Almasy, 2005; Bird, Radermacher, et al., 2009), geographic isolation (Belza et al., 2004; Caperchione et al., 2011; Eyler, Matson-Koffman, et al., 2002), walkability (e.g., neighbourhood characteristics facilitating walking including sidewalks, facilities, aesthetics etc.) (Berke, Gottlieb, Moudon, & Larson, 2007), facilities (López et al., 2008; Suminski et al., 2009), weather (Hosper, Nierkens, et al., 2008; Taylor et al., 2008), type of activity (Curry et al., 2015; Koca & Lapa, 2014; Mathews et al., 2010; Snape & Binks, 2008), transport (Belza et al., 2004; Guerin et al., 2003), behaviour of others (Stodolska & Shiness, 2010; Taylor & Toohey, 2001) and cost (Caperchione et al., 2011; Mathews et al., 2010). Unfamiliarity with local environment was also negatively related to PA participation (Barnes & Almasy, 2005; Taylor et al., 2008).

Moreover, cultural variables made common environmental correlates more complex. For example, access to information was intricately linked to language barriers (Evenson et al., 2002), and went beyond the availability of information as

issues arose from not even knowing where to look for information (Caperchione et al., 2011).

Some studies reported that CALD specific programs and activities were necessary to engage CALD migrants to participate (Mathews et al., 2010; Snape & Binks, 2008), whilst others found that CALD groups were more committed to household and occupational PA rather than LTPA (Khaing Nang et al., 2010). Walking was often the most preferred method of PA (e.g., Daniel et al., 2013; Swenson et al., 2005; Taylor et al., 2008) (especially amongst older adults; (Bird, Radermacher, et al., 2009) and thus safety in the neighbourhood was seen as an important contributor to walking behaviours (e.g., Barnes & Almasy, 2005; Bird, Radermacher, et al., 2009; Guerin et al., 2003). Preferences for PA appear to be greatly influenced by the culture of the group and their level of acculturation.

Facilities were mostly perceived as unavailable (e.g., Belza et al., 2004; Stodolska & Shiness, 2010), inappropriate due to inadequate operating hours (Mathews et al., 2010) and poorly maintained (Stodolska & Shiness, 2010). Muslim women in particular experienced difficulties in accessing programs due to the inability of facilities to meet appropriate religious requirements (Taylor & Toohey, 2001). For some CALD migrants, quality of facilities was perceived as better in the new country compared to the home country (Hacisoftaoğlu & Pfister, 2012). The behaviour of others was a negative correlate of sports and PA participation for CALD migrants (e.g., Amara & Henry, 2010; Guerin et al., 2003).

For example, Muslim women in Australia felt subject to stereotyping and discrimination (Taylor & Toohey, 2001). Taylor's study found myths and stereotypes to be common themes amongst their female participants, with women aware of the myth in Western cultures that Muslim women are oppressed and do not think for themselves (Taylor & Toohey, 2001). Future research should explore this further in other CALD migrant groups and investigate which factors contribute to individuals feeling that they are subject to stereotyping and discrimination.

2.4 DISCUSSION

The aim of this systematic review was to identify existing knowledge relating to sport and PA participation by CALD migrants, paying particular attention to the impact of cultural variables, via an exhaustive search of the literature. Based on the results, this review also delivered considerations for further research and intervention program development. The quantitative literature indicates that a vast number of general and unique correlates exist for CALD migrant groups (e.g., Bird, Kurowski, et al., 2009; Lee & Im, 2010; López et al., 2008; Marquez et al., 2008; Ransdell & Wells, 1998). In addition, some of the qualitative literature suggests that complex interactions between these correlates may occur for this population (e.g., Amara & Henry, 2010; Barnes & Almasy, 2005; Caperchione et al., 2011; Taylor & Toohey, 2001). However, these interactions are rarely explored comprehensively and there is a general lack of cultural understanding in the literature. From the studies that did investigate culture and the process of

acculturation; it is clear that acculturation variables influenced almost all other correlates making the sport and PA pursuits of a CALD community unique to the specific culture of the community, their location, and individuals within that group. However variations in methods, classification of terms such as PA, and different measures, made it difficult to compare studies with one another. Nevertheless, the systematic review does identify vital issues and gaps in the literature pertaining to CALD migrants' participation in sports and PA.

This review highlighted that research in this field is missing vital components related to studying CALD migrant groups. Some studies did not specify the cultural or ethnic backgrounds of their participants whilst other studies classified participants in general terms such as Muslim. Islam is practiced in many different countries around the world such as Sudan, Iran, Indonesia and Bosnia and Herzegovina. Thus, individuals who practice Islam may have a very different cultural background and acculturation process or journey, even though perhaps their identification as a Muslim may remain the same. That is also not to say that participants should be classified by country of birth or country of residence prior to settlement. Some individuals identify themselves via ethnic or cultural boundaries; for example some people born in Burma (Myanmar) may identify themselves as Karen or Chin, not Burmese.

Furthermore, some studies did not specify whether their samples were recent migrants or perhaps individuals who had been in the new country for several generations (e.g., possibly with some Hispanic populations in the USA).

Recently migrated CALD groups are fundamentally different to groups of culturally or linguistically diverse communities who have been in a new country for several generations. However, with some studies it was not made explicitly clear whether participants were recently immigrated CALD groups.

This review illustrates the importance in understanding the holistic experiences of a newly arrived CALD migrant group, in understanding their sport and PA behaviours in the new country. The acculturation process is challenging, and made complex by the interactions between different variables, and individual influences. It is therefore imperative for researchers to explore cultural variables such as cultural values and meanings, at more depth. In this way, researchers can develop a more comprehensive understanding of how these variables may impact on key correlates of sport and PA participation, such as motivation and enjoyment. Researchers and practitioners will benefit from gaining this knowledge and applying it to the development and implementation of sport and PA programs and interventions targeting CALD migrant groups. The studies conducted as part of this overall PhD project (Chapters 4-6) were primarily based on the outcomes of this literature review. They were developed with the aim of gaining a more comprehensive understanding of Karen refugees' holistic experiences of participating in sport and PA in Australia.

2.4.1 Strengths and Limitations of the Literature

The synthesised literature provided a rich understanding of the topic in general, particularly due to the diverse cultural groups and research methods utilised. However, much of the literature in this review was not theoretically driven, nor employed a theoretical framework. The a-theoretical nature of reviewed literature has provided limited context in which to place the discussion within a theoretical framework, and in turn understand the full meaning of the correlates of sports and PA participation for CALD migrant communities. Explorative a-theoretical research is important; however, given the complexity of research involving CALD migrants, a theoretical framework may help researchers be more systematic and structured in their research. Theory-based research may provide a more structured account of the findings contained in this complex field, which was the case for the study conducted by Walker et al. (2015). However, some have argued that much of the research in this field has been conducted with theories that were largely developed based on studies with English-speaking, middle-class or 'white' participants, operating on the assumption that they applied to people of all ages, ethnicities and linguistic backgrounds (Hanrahan, 2014). In a study conducted by Edmunds, Duda, and Ntoumanis (2010), researchers explored the applicability of a popular theory in exercise psychology; self-determination theory (SDT) (Deci & Ryan, 1985) across participants of different ethnicities. Their results suggested that conceptualisations of key concepts of the theory, such as motivation, could potentially only be applicable to individuals of Western cultures (Edmunds et al., 2010). This would therefore make it difficult to

apply theories principally developed through Western perspectives, to settings with non-Western ideologies, or worldviews. As Oyserman et al. (2002) discussed, potentially, there may be inherent differences between individualistic and collectivist worldviews in psychological functioning. The studies in this PhD project were therefore not theoretically driven. This project was explorative in nature, as there was no previous literature on the cultural variables of sport and PA participation of Karen refugees at the time of candidature. With the Karen culture being significantly distant to the Australian culture, a Western-developed theory could have been unsuitable, inappropriate for the participants, or potentially skewed the data towards particular interpretations of meaning. Thus, the aim was to explore and understand the participants' values and perceptions, and understand them in a context of being culturally determined. In doing so, sport and PA programs can be developed to explicitly target and appeal to those culturally specific variables.

The average age of participants in most of the reviewed studies was reasonably high (45 - 54 years), higher than the average ages of migration in some Western countries (24 years for refugees (Martin & Yankay, 2012) and 34 years for migrants in general (Department of Immigration and Citizenship). This makes it highly likely that many of the studies included second generation samples, making it difficult to attribute findings to recent migrants.

Many of the studies included in the review were also cross-sectional in nature, limiting our ability to make inferences about how these groups change over time. It is also difficult to assess causality with the large cross-sectional design focus and small number of interventions. Numerous cross-sectional studies included in this review were conducted using mainstream census data. These findings highlight the low participation rates and various correlates of sport and PA participation for CALD migrant groups. However, they do not provide a comprehensive indication of the way in which culture impacts on these correlates.

2.5 FUTURE DIRECTIONS

One of the key gaps in the literature is the lack of research on sport participation of CALD migrants. Only 11% of the papers analysed were exclusively sports focused or cited sport alongside PA. Sports and PA have many different organisational and social factors and thus it cannot be assumed that the principles applying to PA participation for CALD migrants apply to sports. Participation in sport is characterised by wearing a uniform or clothing requirements to some degree, acquiring and using certain equipment, team/group settings, regular training or coaching, regular competitive game days and social dynamics of club membership (including cost of membership). On the other hand, the social nature of sport and inherent requirement for group participation may make sport an appealing type of activity for some CALD

migrants. These factors need to be explored further so that appropriate programs for CALD migrants can be developed and recommended.

Another important issue highlighted by this systematic review is the lack of a clear understanding and approach to researching CALD migrant groups. The circumstances of all CALD migrant groups vary. However, the literature often appears to homogenise these groups in an attempt to compare findings and identify similarities. Unfortunately, with this approach it is difficult to examine the full scope of the dynamics involved in sport and PA participation for CALD migrant groups. To begin to grasp the issue holistically, it is essential to consider the specific circumstances that make these groups unique. Amongst many others, some of these factors include time spent in the current country, experience of sport and PA in the home country, reasons for migrating, conceptualisation of key terms, experiences during migration and resettlement process, integration and the concept of 'biculturalism' (Nguyen & Benet-Martínez, 2007), the possibility of experiences of traumatic backgrounds, cultural or religious factors impacting on participation, cultural value or meaning of sport and PA and attitudes or motivations towards sports and PA. For researchers and practitioners concerned with increasing sport and PA participation for CALD migrant groups, comprehensively assessing the group's needs is essential to ensure the community program is not only appropriate, but necessary for the group at the point in time chosen. This overall PhD project is an example of how this may be achieved with one cultural group.

When reflecting on the social determinants of health (Dahlgran & Whitehead, 1991), many basic health requirements are likely to precede sport and PA in terms of priority. For example, employment/income, access to medical services, housing, and education are important health determinants that are likely to be perceived by some CALD migrants as more of an immediate concern compared to sport and PA. These issues may also be influenced by reasons for migration, such as in the case of refugees who may have trauma and complex admission/visa procedures to cope with. It is imperative that the group is consulted and empowered in the decision making process and that a clear understanding of culture and acculturation is obtained before developing community based programs and/or research. The complexities with understanding and researching these dynamics are evident. However, a clear focus on the uniqueness of cultural and psychosocial aspects concerned with CALD migrants is largely missing from the literature, which justifies the aims of this PhD project.

Finally, it is important to note that the results of this review have provided a clear indication that concepts of acculturation, and other cultural variables, are not well understood in this field of research. To develop and validate a general instrument to measure acculturation is difficult and complex. The process of acculturation can be affected by a multitude of variables such as age at settlement, length of time in the new country, prior 'cultural change' experiences, links to the original culture and country of birth, personal values and beliefs (and how much they

differ to the new country) and willingness to participate in the new society (Berry et al., 2011). These factors, among others, will vary considerably across individuals and thus it is difficult to construct a measurement tool which will capture the breadth of these variables, which are unique to each individual and effect on acculturation.

2.6 CONCLUSIONS

This review has highlighted the vast number of correlates that researchers and people involved with the development and delivery of community sport and PA programs must consider when planning to work with CALD migrant populations. However, these correlates are not uniform in their effect across all groups, and in fact, some correlates can have completely conflicting influences on different groups. The interactions between the demographic, psychosocial and environmental/organisational correlates of sport and PA can only really be determined in light of a true understanding of the cultural variables and acculturation of the group being studied. The findings of this review suggest future CALD migrant research is preceded by a thorough investigation of the cultural group being researched, including investigations on the suitability of Western-developed theories, to ensure the group would like to and is ready to engage in sport and/or PA. This understanding will ensure well-intentioned efforts to increase the health and quality of life for CALD migrants are welcome, well-structured and appropriate for the group themselves.

**CHAPTER 3: CONTEXT TO METHODOLOGICAL
PROCEDURES**

3.1 GENERAL METHODOLOGICAL CONSIDERATIONS

This chapter outlines the general methodological considerations of the PhD project as a whole to provide background context to the factors that affected methodological decisions and outcomes. This chapter begins by broadly outlining the general methodological approach to the project, then continues on to discuss the specific factors associated with utilising a Community Development approach and conducting the project in a cross-language and cross-cultural setting. A detailed methodology section pertinent to each study is outlined in relevant study chapters (Chapters 4-6).

The three research aims of this project were:

- 1) explore concepts of health, sport and PA, and determine the cultural variables that influence sport and PA participation
- 2) evaluate sport and PA behaviours over time in Australia within the context of cultural change and acculturation, and investigate if there are any changes in concepts of health, sport, and PA over time in Australia,
- 3) develop, implement and evaluate a culturally appropriate sport and PA pilot program based on an understanding of how the group's cultural variables such as concepts of health and collectivism impact on participation.

As mentioned in Section 1.7 Theoretical Underpinnings and Frameworks (pg. 46), this project was based on a phenomenological theory, and thus the main

methodological approach utilised was IPA. The underpinnings of phenomenology (discussed in Section 1.7, pg. 49) are significant for this project, and thus for the methodological approach to the studies. In particular, there is a focus on the notion of individual experience and developing an understanding of how participants perceive their involvement in the lived world by uncovering perspectives and meanings which are unique to a person's embodied and situational relationships to their world (Smith et al., 2008). Nevertheless, combinations of various schools of thought on methodology were required for this project due to the novel and interdisciplinary aspect. Phenomenological perspectives are at the core of the project, however methodological understandings based on Community Development theory and Cross-Cultural and Cross-Language studies are also imperative. These will be discussed in detail within this Chapter.

Both qualitative and quantitative research methods (Creswell, 2014) were used in this project; however there is greater emphasis applied to qualitative approaches than quantitative. This directly relates to the primary objectives of the project, which are to explore values and gain an understanding of the meanings attributed to the various factors associated with Karen sport and PA participation in Australia. Qualitative approaches, therefore, provide the most appropriate and suitable methods in achieving this, and will contribute to a broader understanding of the topic by providing context and meaning (Creswell, 2014). The review of literature in Chapter 2 suggested that the majority of research with CALD communities in sports and PA participation tends to be quantitative. Thus, the

research literature on the cultural impact on participation requires a more thorough understanding of individual experience. Qualitative research techniques are therefore particularly useful as they can provide a rich and comprehensive account of individuals' perceptions of complex topics such as values and perceptions of concepts like health, sport and PA (Creswell, 2014). Qualitative research methods are also very suitable for collaborative research with CALD communities due to the flexible approach that allows participants to speak in their own language and voice (Byrne, 2012); which is important for refugees like the Karen who may have had limited opportunities due to oppression in their home countries. Qualitative methods have previously been used effectively in research when researching CALD groups' sports and PA participation experiences, and have offered a holistic understanding of the topic area (e.g., Hacisoftaoğlu & Pfister, 2012; Taylor, 2004). Therefore, qualitative data is predominant in this project. However, quantitative data is integrated into this project based on the assumption that the combination of both methods would provide a more complete understanding of the research topic (Creswell, 2014).

This project utilises two primary methods of qualitative data collection; semi-structured individual interviews (Studies 1 and 2) and group interviews (Study 2). Quantitative data consists of self-reported PA diaries (Study 2) and an evaluation questionnaire (Study 3). Semi-structured interviews were chosen specifically as they are less structured and thus provide participants an opportunity to give multifaceted descriptions of their experiences (Forrester, 2010), whilst providing researchers with flexibility to explore new spaces and create richer data. The

primary qualitative method used for the project was Interpretative Phenomenological Analysis (IPA) (Studies 1 and 2), whilst a more observational ethnographic approach was utilised for Study 3. The IPA method pays particular attention to understanding the meaning of experience via an idiographic (individual) level of analysis (Shaw, 2010); making it an appropriate method for this project which centres around the notion of individual experience. IPA aims to “...understand what it is like to walk in another’s shoes (whilst accepting that this is never truly possible) and to make analytic interpretations about those experiences and about the person as the ‘experiencer’” (Shaw, 2010, p. 179). This method has previously been used by researchers working with refugees in psychology and psychiatry fields (e.g., Rosbrook & Schweitzer, 2010; Schweitzer, Greenslade, & Kagee, 2007). In order to investigate how sport and PA participation in Australia is affected by individual lived experiences, subjective perceptions, and cultural influences; the researcher requires the flexibility to reflect on their own understanding of the participants’ culture, and the effect of the ‘Australian culture’ from the participant’s perspective. The researcher’s position in creating understanding of personal and social experiences of their participants is an advantage of the IPA method. In particular, the researcher’s own interpretations of how non-Western background individuals resettle into Western societies may provide a deeper perspective on the meaning of data. Moreover, it was envisioned that the IPA method would allow relevant meanings to naturally surface from the data. Grounded Theory, which is commonly used to evaluate similar psychosocial concepts as it is concerned with generating theoretical constructs which are drawn from the data (Forrester, 2010), was also

considered as an analysis method for this project. Grounded Theory would provide opportunities to develop links between concepts, ideas and theories by creating theoretical understandings from the data (Seale, 2012). However, this method was not chosen as it was projected that the heavy reliance on coding, an integral component of Grounded Theory analysis (Coffey, Holbrook, & Atkinson, 1996), was not suited to the objectives of this research project. Firstly, this project was evidence based and focused on practice based outcomes rather than theory development. Most importantly, however, Grounded Theory would have been difficult to utilise due to the cultural and language differences between the researcher and the participants. It would be problematic to examine in thorough detail the meaning and importance of words and phrases in context due to the large amount of non-transferability between the Karen and English languages. Because some English words do not exist in the Karen language, and some Karen words have no literal translation in English, there would have been significant limitations to data analysis and coding. Moreover, this project was not concerned with making claims at a group level, and thus the idiographic nature of IPA, whereby meanings are understood from the perspective of particular people in a particular context, was applicable. This project is concerned with exploring the lived experiences of the Karen people collectively and individually, rather than building a particular theory from the findings. Rather, it was perceived that emphasis on understanding concepts and themes within the context of the individual, paying close attention to the individual's cultural and religious beliefs, social connectedness and understanding of the world around them, was more appropriate.

This thesis acknowledges that creating meaning from data is a socially constructed and subjective process, and particularly for this project, it may be constructed twice (through the use of an interpreter) (Temple, 2006). Moreover, there are considerable implications in conducting research that crosses cultural boundaries. Essentially, this refers to the idea that a young 'Western' researcher, who may be perceived by Karen refugees as an authoritative figure, who is an 'outsider' to the Karen culture and language, is attempting to understand cultural and psychosocial variables in the context of participants' personal experiences. There may be a potential loss of meaning in data due to language and cultural differences (e.g., Twinn, 1998). The notion that 'language is power' also carries the possibility of reinforcing power inequalities and concerns based on the act of speaking on behalf of individuals who may be seen as the 'other' (Temple & Young, 2004). However, the project also offered numerous possibilities that were based on the researcher's previous work and relationships with the target group, and the potential for creating pathways for sustainable positive change within the local community. Previous working relationships with Karen families meant that the researcher was a known and perhaps trusted figure in the community, whom the community-leaders knew was a refugee to Australia as well, and felt would connect well with Karen refugees. The researcher's prior work experience indicated that Karen individuals would be happy for an opportunity to share their life experiences and cultural beliefs and customs that drive their resettlement choices, possibly because of a long history of oppression of their individuality. This project was therefore an opportunity for some of those individuals to have a voice and be involved in a two-way sharing of stories and relationship building

with an individual who also experienced acculturation as a refugee. This was actually expressed in some of the interviews, where participants thanked the researcher for 'asking them questions' about topics that were meaningful for their community (such as health).

Existing links with service providers and Local Councils also presented a great opportunity to create real sustainable solutions for the local Karen refugee group. There was also potential in developing the local Karen refugees' capacity to begin and maintain active lifestyles that were meaningful for them in their new country, which appealed to, and was strongly supported by local service providers (e.g., resettlement agencies) who are tasked by Government bodies to implement programs addressing such issues.

In order to create a systematic understanding on how to close the gap in service provision by developing an understanding of the needs of a CALD population, rather than developing programs based on a random and non-meaningful approach, I used previous experience in the sector to guide chosen methods based on a Community Development framework (Section 3.1.1.1, pg. 110). My previous work experiences with Karen communities provided significant methodological support to this project, much of which centres around culturally appropriate, ethical and effective conduct with this particular cultural group (based on an understanding of how to achieve this through work experience).

The specifics of this are detailed in Table 3.1 below:

Table 3.1 Methodological outcomes of previous working experience with the Karen community

Experience	Methodological Outcome
Existing links to Karen CLs, CD officers and some Karen families	Allowed for effective participatory approach implementation by collaborating with a range of stakeholders, and assisted with recruitment strategies
Understanding of some sports and PA needs for particular Karen groups	Provided a base knowledge of needs and a guide to research questions
Knowledge of how successful Karen community PA programs are, and can be, delivered by Council and other service providers	Assisted with linking research to practice through a well-developed understanding of service provider's capabilities, modes of operating and resources to implement research outcomes
Knowledge of the key meeting places (e.g., Churches) for Karen groups	Assisted with reaching out into the community through culturally appropriate and effective mediums
Strong working relationship and trust between researcher and some Karen CLs	Built rapport and supported a trustworthy and strong working relationship with key members of the community, a culturally favourable and suitable approach to research with this group
Appreciation of the complexities and difficulties involved in forced migration and resettlement through personal conversations and shared experiences	Built rapport with community members and participants, and developed meaningful relationships and bonds through shared experiences of similar life events (e.g., being a refugee)

Thus, previous work experiences with the Karen provided me with some general knowledge of the Karen culture, and an opportunity to form strong relationships with local groups whom I had met previously. I had worked with migrant hubs and various community organisations (e.g., New Hope Foundation, Wyndham Community and Education Centre) who were regularly involved with Karen

community groups and programs. I also had a good knowledge of where many Karen groups met, what areas they lived in, and their service and recreation needs within particular municipalities. Prior to leaving the Hobsons Bay City Council to begin my PhD, I was working with the sports and recreation officer to deliver a family sports day. Therefore, these experiences were advantageous to the methodological approach of this project as they supported a community development (CD) framework of working with disadvantaged or marginalised communities. The section below discusses this aspect in more detail.

3.1.1.1 Employing a Community Development approach

It was through my work experience that I had existing knowledge about working effectively with the Karen community. Thus, to undertake a culturally appropriate research project, I was aware that it was imperative for me to work closely with key community members such as leaders and elders. This was not only a necessity due to the cross-cultural and cross-language barriers, but it was a cultural requirement to work with and obtain the approval of Karen community leaders (CLs) regarding issues involving the broader Karen community. Through my work history, I had developed relationships and networks with Karen CLs, who were significant constituents of this project. Via my previous postgraduate qualification, and my history of working in CD, this PhD project employed a CD approach. On a basic level, CD centres around providing people with collective control of their lives, and CD workers assist communities to gain knowledge, resources and decision-making power, to ensure they have actual control over their futures (Kenny, 2010). However, CD is a contested discipline, particularly as

many researchers argue that that whilst the concept of CD may have been relevant to emancipatory pursuits (such as establishing participatory practices for the empowerment of ordinary people) dominating the 1960's and 1970's, new and complex tensions and dilemmas face CD practitioners in the twenty-first century (Kenny, 2002). Shifting contexts in modern society have led to global actions resulting from the West's promotion of the ideology of the market. This gave rise to the blurring of boundaries between the market, civil society, and the state, where CD may have inadvertently had a role in dismantling the welfare state; leaving poor communities more susceptible (Craig, Mayo, Popple, Shaw, & Taylor, 2011). Moreover, researchers urge that CD requires more effective analyses of power in order to have a strong understanding of a theoretical basis paying attention to race, class, and gender, which are major sources of subordination and thus social justice (Ledwith, Workers, & BASW, 2011). Albeit contested as a 'profession' per se, and whether or not CD workers are described as 'professionals' equipped with a specialised set of skills and body of knowledge (Ife & Tesoriero, 2006), today CD workers are an integral part of non-government and government organisational operations. Scholars like Jim Ife, Frank Tesoriero and Sue Kenny nevertheless argue that CD is still pertinent and the basic principles in empowering individuals to take responsibility for their actions are still relevant for the future of communities and societies (e.g., Ife & Tesoriero, 2006; Kenny, 2002, 2010)

Based on one of the most important principles of CD work, participation (Kenny, 2010), an integral component of this project involved working closely with the

Karen community, particularly the CLs. A CD framework is especially useful when working with CALD communities, particularly as there are issues of marginalization and empowerment (Ife & Tesoriero, 2006; Kenny, 2010). Participation in particular has become instrumental in working with communities, providing a 'bottom-up' approach that aims to limit some of these concerns (Brohman, 1996). The CD principle of participation stresses that not only the involvement of 'the grassroots' (i.e. the community members/leaders) is vital; but that the variety of stakeholders, and the relationships between them, are integral to the success of a research project or program (Mikkelsen, 2005). Thus, I met with CD officers from both the Wyndham and Hobsons Bay Councils during the early stage of the project (June – August, 2012), as the context of this project is partly driven by Local Government service provision. Both Councils expressed an interest and willingness to support the project and collaborate, particularly for Study 3.

The methodological approaches utilised in this project reflect an approach to research that is community focused and participatory, due to the nature of the target group's culture and preferences of involvement. These approaches were also utilised because of the researcher's pre-existing relationships and knowledge of working effectively with the Karen. Due to the cross-cultural and cross-language complexities involved in this project; a separate section of this chapter is dedicated to detailing the methodological issues and challenges of the research. This section is titled: 3.2: Community-leaders as Interpreters and Research Partners: Methodological Issues.

3.1.2 Participants

All of the participants in the project were recently arrived (living in Australia for 7 years or less) Karen community members from Melbourne's Western regions. The Western regions of Melbourne were specifically chosen for two reasons: 1) many Karen families in Victoria initially settle in two primary areas of Melbourne's West, Werribee / Hoppers Crossing (Wyndham municipality) and Laverton (Hobsons Bay municipality)³, and, 2) Victoria University's unique positioning in the West provided an opportunity to strengthen relationships with local service providers (e.g., Local Councils) to create sustainable options for positive changes to health outcomes for local refugee families.

For Studies 1 and 2, participants consisted of 7 newly arrived (in Australia for 2 years or less) and 7 recently arrived (in Australia for 2 years or more) individuals, whilst participants in Study 3 were not categorised and consisted of 36 children and adults from the broader local Karen community. Participants were grouped based on length of stay in Australia based on the findings of the systematic literature review (Chapter 2), suggesting that length of time in the settled country impacted on sport and PA participation. Inclusion criteria for Studies 1 and 2 required participants to be Karen refugees who were 18 years old or over and had been in Australia for 7 years or less. For Study 3, children of pre-school age (4yrs old) and over, and adults of all ages (based on capacity to

³ This judgement was made according to analysis of the quarterly Settlement Planning Updates via the Department of Social Services, Settlement and Multicultural Affairs Office of the Australian Government, which I received during my employment as a multicultural CD officer at Hobsons Bay City Council.

partake in PA safely) were eligible to partake in the study. Capacity to partake in PA safely was assessed by utilising the Physical Activity Readiness Questionnaire (Cardinal, Esters, & Cardinal, 1996) (Appendix O) at the start of the intervention. None of the participants answered 'yes' to any concerning questions regarding their safety in partaking in PA. However, if participants would have answered 'yes' to any of the questions, or if they expressed concern for their safety in partaking in PA, they would have been advised to speak with their family doctor regarding their participation in the intervention. The researcher would have liaised with the doctor regarding the type of activities that would be performed and the individual's capacity to partake in those activities safely.

3.1.3 Sampling and Recruitment

In June of 2012, I met with one CL with whom I had a previous working relationship (Ida Bright⁴) through my work as a multicultural CD officer at Hobsons Bay City Council (HBCC). Ida was very keen to work with me on the project and advised that she knew many recent arrival families within the Hobsons Bay area, and would be willing to connect with them to assist with recruitment. At the same time, I also met with another Karen CL who worked for the New Hope Foundation. He assisted me by forwarding on information about the project to other Karen leaders, and put me in touch with a CL from the Werribee area (Taw Doh Moo³). In July of 2012 I met with Taw Doh Moo, and he

⁴ Permission was granted via email by both Ida Bright and Taw Doh Moo to use their real names in the publication of this thesis.

agreed to work on the project, advising that he also knew many new arrival families in the Werribee area and would assist with recruitment.

This project utilised purposeful sampling (Patton, 2014) to recruit participants based on length of time in Australia through various channels of Karen community networks including active community groups, community centres, CLs, local Churches, Karen community development officers and settlement workers. Participants were sampled via these various channels across Western Melbourne to create a broad representation of ages, engagement levels and experiences, particularly resettlement experiences. This was done by circulating the Information to Participants document (English version is attached as Appendix B) through these channels (primarily by electronic format and email). However, verbal recruitment is the most appropriate method of recruitment for the Karen group (confirmed by CLs and elders), and was the suggested and preferred method by the Hobsons Bay City Council CD team during early project meetings. Because of this, verbal methods such as 'word of mouth' were the primary means of recruitment for all 3 studies of this project. The CLs were briefed on the project and were provided with copies of the Information to Participants forms (translated into the Karen language). They then relayed information verbally to their respective Karen community members and various networks throughout the selected areas. Community workers employed by relevant community organisations and Local Councils (e.g., New Hope Foundation, HBCC) also relayed information to individuals they considered to fit the inclusion criteria of each study. Throughout the entire recruitment phase of each study, communication and feedback was maintained with the CLs regularly

via phone conversations and emails. During this process, CLs advised of numbers of registered participants, questions or queries from interested individuals, as well as feedback from individuals who were not interested in being involved.

3.2 COMMUNITY LEADERS AS INTERPRETERS AND RESEARCH PARTNERS: METHODOLOGICAL ISSUES

Worldwide migration is increasing the demand for qualitative researchers to take part in projects that involve participants who do not speak the same language, or who have different cultural values or perceptions. This is particularly so for Australia; where 18% of the population speak a language other than English at home (Australian Bureau of Statistics, 2011). Language is paramount in qualitative research (van Nes, Abma, Jonsson, & Deeg, 2010), and cross-language research; studies where language barriers are present between researchers and participants (Larson, 1998), presents consequences, particularly for validity (e.g., Squires, 2009). There may be ethnic, language, cultural, socioeconomic, religious and varied background differences between researchers and the population of research interest. Research is occasionally conducted with bilingual and bicultural researchers to address such challenges; however this seldom happens as availability of bilingual researchers is limited (Esposito, 2001; Hsin-Chun Tsai et al., 2008), and researchers often do not possess the appropriate language skills required to communicate with CALD populations (Murray & Wynne, 2001). Some researchers have also suggested that participants speaking in second languages during interviews perceive

themselves as less confident and happy (de Zulueta, 1990; Kline, Acosta, Austin, & Johnson Jr, 1980). Thus, there is a growing need for researchers to work collaboratively with interpreters, and at times non-professional interpreters, to engage with these often-isolated groups allowing participants to express themselves fully in their native languages, and strengthen collaborative partnerships.

This section of the thesis draws on the work by Harris et al. (Harris, Boggiano, & Nguyen, 2013), who discussed their experience of the “interpreter-as-co-researcher” relating to their project involving work with interpreters. Much like Harris and her colleagues (2013), my experiences of working with ‘co-researchers’ involved the CLs who were the links to their community, acted as interpreters and shared meaning creators, data collectors, cultural liaisons and organisers. This discussion explores the challenges and insights that were gained after conducting qualitative research in cross-language and cross-cultural situations. In particular, I discuss some of the methodological issues that were identified and offer my experiences as learning opportunities for others, since they changed my own perceptions and approach to research with refugees and CLs.

3.3 BACKGROUND TO CROSS-CULTURAL AND CROSS-LANGUAGE RESEARCH

Conducting qualitative research in languages other than the researcher’s primary language is challenging, and the process is particularly difficult if the

investigator's culture is different from the participants'. Standard guidelines for data collection, analysis and reporting of qualitative data exists (e.g., Denzin & Lincoln, 2008; Willis, Jost, & Nilakanta, 2007), and many researchers have discussed best practices for conducting qualitative research in cross-language and cross-cultural contexts (e.g., Berman & Tyyskä, 2011; Cleary, 2013; Liamputtong, 2010; Squires, 2008; Wallin & Ahlström, 2006). However, crucial components of this type of research, such as the role of the interpreter, "remain blurry" and are rarely described in detail (Harris et al., 2013, p. 1409). Or, researchers are concerned primarily with processes that "control the translator/interpreter" (Berman & Tyyskä, 2011) such as regulating the credentials of the translator or seating arrangements (Edwards, 1998; Esposito, 2001; Squires, 2009), and eliminating errors (Shklarov, 2007). There is a particular lack of discussion on the issues that arise when working with unqualified community interpreters and translators (Temple, 2002). In a review of 40 qualitative cross-language studies, Squires (2009) found that authors rarely even acknowledged the limitations caused by cultural and language barriers on the analysis and interpretation of their data (Squires, 2009). Yet, conducting qualitative research through cross-cultural and cross-language methods introduces many methodological issues such as interpreter bias and the possibility of misinterpretation or missing information of participant source material. Esposito (2001) argues that the process of translating meaning from researcher to participant and vice versa is one of the biggest challenges faced by cross-language and cross-cultural researchers (Esposito, 2001).

Research with translators or interpreters is sometimes viewed through an epistemological framework that perceives translators as deliverers of “neutral messages”, assuming that there is one true version of an account (Temple, 2002). In their review of cross-cultural interview studies with interpreters, Wallin and Ahlström (2006) found that researchers of nearly all reviewed studies attempted to render interpreters ‘invisible’ in the research process. Berman and Tyyskä (2011) suggest that this approach treats the interpreter as a “potentially problematic” part of the research procedure. On the other hand, another view that has been highlighted by researchers suggests that interpreters are active producers of research, data, and thus knowledge (e.g., Murray & Wynne, 2001; Temple, 2002). This latter perception encourages collaboration between researchers and interpreters thereby making interpreters more visible in the research process overall (Edwards, 1998; Jentsch, 1998; Murray & Wynne, 2001; Temple, 2002; Wong & Poon, 2010) and prompting them as ‘co-researchers’ (Larkin, Dierckx de Casterlé, & Schotsmans, 2007). Wong and Poon (2010) argue that when this approach is embraced, researchers can more effectively “tap into the richness of the research data through multiple layers of interpretation and meaning construction within and across culture” (Wong & Poon, 2010, p. 152). This section of the thesis explores these views within the specific context of working with CLs in particular, who are not formally qualified, as interpreters and research partners in a cross-language and cross-cultural landscape.

3.3.1 Studies 1 and 2 in a Cross-Language and Cross-Cultural Landscape

Both Studies 1 and 2 are comparative in nature and aimed to understand how old and new PA behaviours were similar or different, how Karen refugees perceived opportunities to participate in sport and PA in Australia, and how various concepts changed over time in Australia. This understanding is important in improving the practices of researchers or service providers who aim to facilitate or support refugees becoming physically active in Australia. To conduct these in-depth interviews, I opted to work with CLs who were not NAATI (National Accreditation Authority for Translators and Interpreters) accredited, based on several considerations, and the nature of the project (Table 3.2). As mentioned above, I collaborated with two CLs; one was a female who had been living in Australia for 13 years. The other leader was a male who had been living in Australia for 7 years, and volunteered to be involved through word of mouth from local Karen networks. Both CLs were registered with a local community interpreting agency and engaged in occasional interpreting services for community workshops, doctor and hospital visits and various other contracted tasks. Together we worked on the content, format and the structure of the interviews and schedules, and they provided input on research design, disseminated information throughout local networks, organised interview times with participants and provided interpreting services.

Table 3.2 Justification for engaging bilingual community leaders as interpreters

Considerations	Description
Pre-existing relationship	I already had a pre-existing strong working relationship with key community-leaders in the Karen community through my previous employment as a community development officer
Cultural expectations and comfort of participants	In the specific municipalities, Karen communities are still considered as reasonably new settlers (approx. average of 5 years), thus engaging a bilingual community-leader who is well known and respected in the community would provide a more comfortable interview environment for participants, particularly for the newly arrived group. Consulting with and respecting community-leaders are culturally favourable methods of engagement with the Karen
Limited qualified Karen interpreters	There are limited organisations that have access to professional Karen interpreters, due to the uncommon language and reasonably recent arrival of the Karen. The Karen language is currently not a NAATI accredited (qualified) language and interpreters or translators can only receive an acknowledgement for language comprehension
Collaborative partnership	Engaging community-leaders as co-researchers presented an opportunity to work collaboratively and closely with them throughout all phases of the project life cycle and develop a sustainable partnership
Funding restraints	My PhD funding limited access to professional Karen interpreters – through previous experiences with the Karen language, it was estimated that one double sided A4 sized document would cost approximately \$350 AUD to translate, a professional interpreter would cost approximately \$125 AUD per hour and a 40min interview (only Karen audio transcribed) would cost approximately \$500 AUD to transcribe. Thus, this would have been too costly to undertake as part of a PhD project

The interview schedules for Studies 1 and 2 aimed to obtain detailed descriptions of Karen participants' experiences of sport and PA participation at home (Burma) compared to Australia, and how it related to their sense of health and wellbeing. Interviews were conducted in the Karen language and audio recorded. Six interviews were back-translated (Study 1 only) through an external interpreting

and translating organisation (Victorian Interpreting and Translating Service, VITS). At the end of each interview, there was a short debriefing session with the CLs to encourage open dialogue and reflections on the interview process. This also provided a chance to understand more about the CLs and their individual ways of knowing, and perhaps how they may be impacted by their social worlds (Wong & Poon, 2010). According to Temple and Edwards (2008), in order for English speaking researchers to conduct meaningful research with individuals who do not speak English, they “need to talk to the interpreters and translators they are working with about their perspectives on the issues being discussed” (Temple & Edwards, 2008, p. 2). Thus, as others have done and suggested (e.g., Björk Brämberg & Dahlberg, 2013; Temple, Edwards, & Alexander, 2006), a formal interview with both CLs was conducted after Study 1 to discuss their views on the interview process and themes arising from the comparisons of transcripts, through open dialogue. This was not conducted for Study 2 as this study followed on from Study 1, and discussed specific themes in more detail, over a longer period of time. However, the CL did continue to engage in reflective dialogue on their perspectives after each interview.

3.4 COMMUNITY-LEADERS AS INTERPRETERS

Some researchers suggest that it is more favourable to work with professional or trained interpreters and translators who may be unknown to participants, rather than unqualified or community interpreters (e.g., Esposito, 2001; Jentsch, 1998). Others warn that this may compromise the comfort of participants, suggesting that interviewees may not be able to trust a stranger (Phelan & Parkman, 1995).

Working with non-professional interpreters (e.g., CLs) may be an important consideration in making an impact on the interpreter and the community group. This especially relates to the appropriateness of a CL taking on an interpreting role, particularly as it may allow the CL to take on responsibilities that may be expected of them by their community group, thereby fulfilling their own desires to represent their community. But, it also gives the CL a sense of empowerment and shows respect for their community by allowing a local member to be involved, rather than simply being 'assigned' an unknown individual to represent the local community. Nevertheless, researchers such as Temple and Young (2004) argued that "there is no one way to engage with people who speak languages other than English." It would be inappropriate in the context of this research project, however, to work with professional interpreters due to the target group's culture and needs to feel safe and comfortable with a well-known and trusted community member. Thus, CLs who were trusted and familiar members of the Karen community were specifically chosen to be involved in the research project. Conducting research with trusted figures of the Karen community who were intricately involved with the entire research process was a source of learning. The discussion that follows explores some of the fundamental insights that were gained throughout this experience. The discussion is categorised into 3 themes; the co-researcher role and overcoming issues of power, challenges, and, rewards, of the co-researcher partnership.

3.4.1 The Co-Researcher Role and Overcoming Issues of Power

Collaborating with the CLs was not only a culturally favourable gesture, but it also provided an opportunity to build a relationship with the local Karen community.

The CL as a 'co-researcher' setting also created a unique research process which was a source of learning for a developing researcher. Shifting research roles and power issues were some of the key experiences that contributed to this learning, and this will be exemplified through forms of reflections and comparisons, in the discussion below.

Due to the fact that the CLs were not accustomed to working in research settings, several meetings were arranged with them prior to conducting any interviews.

Discussion topics involved the suitability of the interview guide, culturally appropriate behaviours (e.g., shaking hands), the topic material and research questions and outcomes, and in-depth ethical considerations. The researcher realised that both CLs had memorised the ethical statement delivered to the participant prior to the start of the interview after approximately two interviews each. They had taken it upon themselves to deliver it, without the researcher's recital in English, which was not aligned with the University's ethical agreement and interview discussions held with the CLs prior to the interviews. It is unclear why this may have occurred, but perhaps it gave the CLs more confidence in their role in a research setting, they wanted to demonstrate their capabilities of fulfilling their roles to the researcher, or they were simply conscious of the time burden for participants. Nevertheless, after this was observed, both CLs were asked to interpret this message from the researcher, only due to the University's

ethics requirements, and they did this for all interviews afterwards. This incidence did, however, alter the dynamics of the researcher's roles and required adjustments to expectations, prompting action on procedural concerns during the implementation of the project. This "dual role" (Shklarov, 2007) of the CLs as co-researchers also blurred the lines of workload distribution during the interview process. The CLs simultaneously played the roles of a CL, an interpreter, a cultural broker and an analyst, what Temple and Young (2004) referred to as a "hybrid role" (Temple & Young, 2004, p. 171), at each interview. Whereas I the developing researcher, essentially played only the roles of the researcher and analyst. This potential 'difference' in roles assigned to the primary researcher during the data collection phase may be of concern for many researchers, however, it is important to note that in this particular project, it was the most appropriate outcome. The scenario assisted in making them feel comfortable by having a trusted member of their own community clarify a very technical and perhaps unfamiliar process in terms that the CL knows are meaningful and comprehensible for them. It would have also assisted with exemplifying to the participants that the researcher and CL were in fact collaborating and working together on the research project, rather than portraying the perception that the perhaps 'authoritative' researcher was commanding the entire project. Most importantly, it may have served to empower the CLs as individuals and co-researchers working with the research team.

Empowering the CLs was an important outcome for this project, particularly because the methodological design of the individual studies involved likely power

interactions between the CLs, the participants, and the researcher. For example, the interview process was based on one individual communicating for others, which may have reinforced longstanding power inequalities (Temple & Young, 2004), as suggested above. However, Edwards (1998) does not suggest interpreters use first person (common practice) to translate, rather she suggests using the third person, since the former visibly highlights the participant's inability to communicate without assistance. Thus, in an attempt to address this issue, both CLs in this project were asked to employ the use of the third person when interpreting. Although, in an interview with the leaders, one mentioned that it was imperative for him to abide by the 'interpreter code' which required him to use first person in his interpretations. The other CL also stated "for example, if I go for the interpreter, even in the um, maternity child health or school... the first thing I have to do, have to use the first person..." This suggests that the CLs may have received interpreter training from their contracted interpreting agencies, which compelled them to use the first person when interpreting. Yet, both CLs often used the collective term 'we' when interpreting responses from participants, and this was confirmed in both interviews with the CLs as exemplified below:

When I use we, like, we stand for the whole community, the whole Karen people... when we did the interview for this, well, because we would like to cover the whole Karen that's why we normally use we... even um, like the participants, they always say we instead of me, instead of my family, we use the whole Karen (Female interpreter).

There was also a concern that community members may feel coerced to participate in the project or would want to please the CL by participating in the project, if approached by them. Thus, it was important to work with CLs who were not religious leaders (e.g., Pastors) or held a higher social status in the Karen group, to limit this potential power relationship. It was also important to ensure that CLs understood issues of coercion and ethical concerns with recruitment, and this was done prior to applying for ethical approval for Studies 1 and 2 to ensure both CLs understood these requirements before commencing the project. The regular phone conversations with the CLs during recruitment were also a means of limiting the possibility of coercion. The CLs were asked to advise any feedback of uninterested individuals, and often reported that many families could not participate because they were either too busy, were not interested, or did not see it as their priority because they were new arrivals. However, due to the method of recruitment, it is impossible to provide a percentage of the consent rate.

The CLs took on a pivotal role in the research, because during the interviews; they introduced the researcher to the participants, summarised the details of the study, and explained to them the types of questions that would be asked of them, which all took place before the researcher had formally greeted the participants. In doing this, the CL provided the participants with an opportunity to learn more about the researcher and discuss topics about the research, without having to feel that any 'formal' processes have begun. It was anticipated that this process too, assisted in limiting the potential issues of power that arose in this situation.

3.4.2 Challenges of the Co-Researcher Partnership

My experience of working with CLs as interpreters in a research setting was challenging due to the nature of the research itself, but also because I was still learning how to work effectively in this situation. One of the most observable challenges in this setting was learning to address the individual influences both CLs had on the creation of the data. They had come from different backgrounds, had been in Australia for different periods of time and were at different stages of resettlement. Similar to other studies, the CLs were 'active contributors' to the data, rather than impartial carriers of messages (e.g., Edwards, 1998; Temple, 2002; Temple & Young, 2004). Individual influences or perhaps other characteristics or social locations (Wong & Poon, 2010) and ways of knowing; what Temple (1997) referred to as "intellectual biography" (p. 608), impacted the creation of meaning and/or the data. To illustrate this effect, when a participant was asked: "Can you tell me what sport means to you?", the interpreted response was: "Sport is really good, but we have to find time to do sport, most of the time we don't have time for it, because we've got three children, quite busy with them." The back-translated statement was: "Sport is good but to participate in sport, we don't have the time, to play sport, you have to allocate a separate time." The interpreted data was generated from the female CL who, like the participant, also has three young children. Her own experience of having limited time to participate in sport came through the interpretation of the participant's response. This was confirmed through the formal interview with her, where she stated that she related her own experiences to the participant's and saw a lot of her own situation in what the participant was saying.

These and other similar instances created extra elements of meaning which emerged through either the removal or the addition of descriptions, to the participant's interpreted responses. Albeit conceptual messages matched with the interpreted and translated responses; in some cases crucial details in responses were either left out or added. An example of this process is further illustrated when one participant was asked if they could describe their experience of sport and PA before coming to Australia. The translated response was: "Back home . . . we played together and met up with friends . . . the boys would play soccer, we played chasing . . . we didn't have special made places for any specific sport." The interpreted response with the female CL had an additional component added at the end of the response; "We grew veggies, in the garden as well . . . we eat fresh every day . . . that's very important in our community, to keep everyone healthy." Another example of her addition of colourful and emotive words is evident from this interpretation: "The main thing is the language barrier because sometimes we really want to communicate with other people but got no idea . . . sometimes it's like we feel really sorry for our self" compared to the translation of: "For me it is the language, wherever you go, having to communicate in the English language is the most challenging."

There were also cases where the CLs' interpretations were more straightforward and lacked key details. An example is the male CL's interpretation: "Parents should give their children opportunities to play at the appropriate time, eat food at the appropriate time, sleep at the appropriate time", compared to the translated response: "Parents let their children play at the right time, sleep at the right time, everything has its time, they have to feed them if

they don't feed them at the right time later on something might happen to them.”

The change in meaning during interpretation meant that the researcher was not given the opportunity to probe and ask follow-up questions on the concept of children's safety and wellbeing. However, it did provide an opportunity to revisit the issue when it was discovered through back-translation.

Other difficulties encountered related to language technicalities and transferability of messages. Although both CLs had a fluent grasp of the English language, when messages were being interpreted back into English, it was difficult for them to construct entire sentences seamlessly. A constant flow of conversation was difficult to achieve, and at times, making sense of interpreted information on the spot was challenging, as both CLs used 'filler words' such as 'yep' and 'like' repetitively with each sentence. Both CLs stressed the different structure and vocabulary of the Karen and English languages, emphasising that sentence structures were quite different, and that some English words did not translate exactly or did not exist in the Karen language. One CL highlighted that some English words, such as really, surely and certainly, all translate to the same word in Karen and that she needed to think about the meaning of the Karen sentence, to use the right English words in an appropriate context. Larson (1998) has discussed how translators consider the cultural context of both individual societies to develop an interpretation that is understandable on different levels, and notes that if source text originates from a technical society, translating material into a nontechnical society may be more difficult (Larson, 1998, p. 150). Both CLs in this project expressed this difficulty in translating from English to

Karen, which may explain why they both used 'filler' words frequently; perhaps to create more time for themselves to convert contextual meanings as well as literal translations.

The back-translation process allowed the examination of these individual variations in interpreted meanings, and the variations of data between the interpreted and translated versions of the interviews. However, it is important to note that I do not presume that the translators who provided transcripts of the data were neutral. As Temple et al. (2006) stated, "all translators choose between words and concepts to try to reconstruct meaning and there is no single correct choice to be made" (p. 4). Thus, there is the possibility that the translators themselves would have their own individual variations in meaning. As argued by Larkin et al. (2007), the perspective that procedures utilised to ensure word equivalence like back-translation, which have become 'gold standard' for cross-language research, is inherently flawed. He continues on to state that "it makes global assumptions that research is language free and that the same meaning in the source language can be found in all target languages" assuming that exact meanings can be transferred successfully (Larkin et al., 2007, p. 469). Back-translating was utilised in this process to ensure full detailed accounts of the participants were captured, to evaluate if there would be potential problems of authenticity (Murray & Wynne, 2001) as the CLs were not professional interpreters, and to have a basis for exploring and discussing the interview and interpretation process with the CLs. However, this thesis does not presume that the process of back-translating the interviews will substantially enhance the trustworthiness of the data (Squires, 2008). Rather, it acknowledges that the

translators too are individuals who bring their own experiences and intellectual biographies into their interpretations of meaning, and that social positions and worldviews can affect this translation (Wong & Poon, 2010). Nevertheless, it is important to note that back-translating provided an opportunity to observe the additional insights that were provided by the CLs and were included in the data set and analysis. But in many cases, these additions created richness, and “illuminated the context of the participants’ words” (Harris et al., 2013, p. 1409) through a broader perspective on the topic. As mentioned earlier, the dynamic process of IPA allowed for flexibility in interpreting meaning in data that was collectively generated by the researcher, participants, and CLs.

3.4.3 Rewards of the Co-Researcher Partnership

This particular research process provided positive contributions to this project from the CLs who filled various and vital roles. The CLs usually delivered messages to the community out of their own initiatives, without seeking direction from the researcher first, which was helpful to gain access to participants and to clarify project related issues. For example, during the recruitment phase the CLs discussed the project with members in their network and organised interview times with interested participants. They then advised the researcher of 4 or 5 already organised times, days and locations of interviews. Given that the CLs received no reimbursement for this work, it is acknowledged as going above and beyond what was expected, and significantly assisted with the implementation of the studies.

It was also particularly valuable for this project that the CLs acted as cultural liaisons, or “cultural brokers” (Hsin-Chun Tsai et al., 2008), who conveyed key symbolic expressions and cultural meanings to the researcher. As an example, at the end of most interviews the CLs often engaged in reflective conversation with both the researcher and the participant about the outcomes of the interview. Although this post interview debrief was particularly important because it assisted the researcher in creating meaningful relationships with the participants; it also enabled the researcher to learn more about the Karen culture. The CLs would explain to the researcher the cultural context and the meaning of behaviours (e.g., sitting on the ground rather than the couch), which were considered respectful and polite in the Karen culture. Participants often offered drinks or food before and after the interview, and in several interviews the CLs advised the researcher of the customary cultural procedure in this instance: “in Karen culture, when you come to someone’s house and they offer you a drink or something to eat, it is polite to try something.”

These cultural teachings were essential learning points for establishing respectful rapport and trustworthiness with participants, without which, the researcher may have unknowingly offended or disrespected participants. Furthermore, this process enabled the researcher to establish trustworthiness and genuine engagement with the participants, which according to Lincoln and Guba (1985), is a vital component in demonstrating credibility and rigor in qualitative studies. The participants also had opportunities to learn more about the “Australian” culture. The CLs were instrumental in conveying these messages not only from a communication perspective, but also from a cultural perspective.

Both CLs were able to share their own experiences of adaptation, coping mechanisms or strategies for the adoption of “both cultures”. Thus, creating these opportunities for cultural exchanges and teachings was very important for this research project based on the shared outcomes for the CLs, the participants and the researcher.

Without the cultural and linguistic expertise of the CLs, as well as their local knowledge and ability to build rapport with participants and make them feel comfortable; this project would have been impossible. The CLs engaged their local community effectively with the research project. They disseminated information and conveyed messages from the researcher outside interview environments without formal reimbursement. The CLs themselves were excited about the project, which reflected in their approach of recruitment and work commitment. In most instances, their additions to the data, such as “growing veggies” in the refugee camp, actually gave more depth to the researcher’s understanding of the participants’ previous lives and activities outside Australia. Moreover, the collaborative relationship that has been created with the CLs and the researcher will be constructive for future projects with the same cultural group, especially because obtaining trust from the community may be a time consuming and complex achievement with this group.

**CHAPTER 4: “IF A PERSON IS HAPPY HE IS ALWAYS
HEALTHY”: KAREN REFUGEES’ PERCEPTIONS OF HEALTH,
SPORT AND PHYSICAL ACTIVITY IN AUSTRALIA – STUDY 1**

4.1 INTRODUCTION

The Karen people are of particular interest in Australia given that for three years (2007/8 – 2010/11) the highest numbers of refugee visas in Australia were granted to people whose country of birth was Burma (Department of Immigration and Border Protection, 2014). The vast differences between the traditionally non-Western Karen culture and modern Australian society provided an opportunity to understand how sport and PA participation is affected by potentially wide cultural distances.

The systematic literature review (Chapter 2) was conducted as the first phase of Study 1, and suggested that in order to truly understand sport and PA participation of CALD migrant groups, it is essential to consider how cultural differences and/or changes are experienced. The results of the review highlighted several general and some CALD specific correlates for participation, such as time and language barriers. However, much of the qualitative research in the review suggested that complex cultural interactions may occur within these correlates, such as differences in the time spent in the country, home country experiences, and reasons for immigration. Hence, the second phase of Study 1 was developed to evaluate the complexity of the unique situation that Karen refugees face when resettling into Australia, and explore how this situation impacts on participation in sport and PA. The aim of this study was to gain an understanding of how Karen participants perceive key concepts, and explore cultural variables that may impact on sport and PA participation in Australia. This chapter discusses the interview study conducted with newly arrived and recently

arrived Karen refugees. The interviews examined the participants' concepts of health, wellbeing, sport and PA, and explored their experiences of resettlement from Burma to Australia, through the context of sport and PA participation.

4.2 METHODS

4.2.1 Participants

The fourteen participants were Karen Christian Baptists who resided in the Western regions of Melbourne, Australia (primarily from the Laverton area), and had lived in the refugee camps on the Thailand/Burma border for several years (varying from 3 years through to 22 years) before arriving in Australia.

Participants were organised into two groups according to their overall length of time in Australia; 7 participants were newly arrived (2yrs or less in Australia) and 7 participants were recently arrived (2-7yrs in Australia). It was envisioned that the two groups would allow for exploration of whether length of settled time affected any aspects of participation, including differences in values, beliefs and/or concepts. The newly arrived and recently arrived categories were based on previous work experience in the Local Government. The Australian Federal Government provides settlement assistance to refugees for 5 years, and after such time they are no longer considered in need of support. Thus, 5 years was used as a guideline for the recently arrived category, with the time extended to 7 years to explore participants' settlement processes well after Government support has ceased.

4.2.2 Role of community leaders and recruitment strategies

The Karen have a collectivist nature and value community harmony and collaboration. In Karen culture, it is not unusual for members to speak on behalf of the Karen people in general, particularly for CLs and elders (as discussed in Chapter 3). Karen CLs are trusted and well-respected individuals who often represent the voices and needs of their broader Karen communities. Thus, it was vital to work closely with the Karen CLs, not only as a symbol of respect and understanding, but also to overcome potential cross-language and cross-cultural issues inherent to the study.

The primary recruitment strategy was 'word of mouth' as it is the most effective and appropriate method, primarily due to the oral nature of the Karen. Research information (Appendix B) and consent documentation (Appendix C) was translated into the Karen language via a professional interpreting and translating organisation (VITS), and cross-checked by the CLs. The invitation for participants was sent through various local networks and community channels including local refugee and migrant service providers, Councils, and word of mouth from the CLs. In considering potential issues of power with CLs recruiting participants (as discussed in Chapter 3), it was assumed that not all participants who were aware of the study took part based on consistent feedback from the CLs who regularly advised that some individuals did not wish to participate or had no time.

4.2.3 Procedures

The study was approved by the Victoria University Human Research Ethics Committee (VUHREC) in October 2012. As per the University's ethical approval guidelines, participants were given the option to provide consent through verbal means (e.g., audio recording) should they feel more comfortable to do so, rather than the common practice of signatures. However, all participants were literate in the Karen language and were comfortable in confirming their consent to participate by signing translated consent forms (English and Karen versions attached as Appendix C). Due to the cross-language and cross-cultural nature of the study (discussed in detail in Chapter 3), two Karen CLs (Ida Bright and Taw Doh Moo) were involved in this study as interpreters and co-researchers. A pilot interview was conducted with both CLs to evaluate the cultural appropriateness of questions and terminology, and to determine whether cross-cultural communication strategies between the researcher, interpreter and participant would be effective. The interviews were audio recorded and transcribed verbatim (English audio only) by the researcher. Six of the interviews (3 conducted with Ida Bright, and 3 conducted with Taw Doh Moo) were sent to VITS to be professionally translated and transcribed.

A semi-structured face-to-face interview averaging 50 minutes was conducted once with 14 Karen refugees in November and December 2012 at their homes. The interviews were conducted in the Karen language, with the researcher asking questions and a CL interpreting between Karen and English. As the initial focus was to capture individual stories and experiences, interviews were

conducted individually at participants' homes. This also eliminated transport and access issues, assisted with building trust and rapport between the researcher and the participants, and was suggested as the most appropriate method by the CLs. Although interviews were intended to be individual, some participants felt more comfortable with their family sitting and observing (e.g., partners, children, parents), which was permitted.

The researcher met the CLs at participants' homes as both CLs lived in the local areas of the interviewees and were content organising their own transportation. After entering the participant's home, the CL introduced the researcher and gave a brief overview of what the researcher was studying, where she was from (including her refugee background) and what she would be asking the participant. After the participant had acknowledged this, the researcher would formally introduce herself and shake the participant's hand. The researcher then proceeded to outline key ethical considerations regarding confidentiality, freedom to withdraw without consequence and verbal consent to the audio recording of the interview prior to the official commencement of the interview. After participants agreed to the statement, the researcher turned on the audio recording device and began the interview with casual conversation to make the participant feel comfortable (e.g., discussing the weather, thanking the participant for their involvement, discussing their children, answering questions from the participants). All interviews concluded with an announcement from the researcher thanking the participant for their time and responses.

The participants have been given pseudonyms to protect their confidentiality, and to provide a more personal and meaningful presentation of the results.

4.2.3.1 Interview guide

Interview schedules (Appendix D) were constructed according to the IPA framework (Smith et al., 2008). The questions were developed, then cross-referenced and improved with the Karen CLs who provided input on additional topics and appropriate wording. The first interview consisted of 16 key topic questions with some potential prompting questions. The interview schedule changed three times throughout the study with minor amendments to wording (e.g., changing the words “what does it mean for you” to “how important is it for you”) to reflect the need to clarify concepts and words because of non-translatable or culturally inappropriate meanings (as discussed in Chapter 3).

4.2.4 Data analysis

Data was analysed following IPA methodology. This process involved the researcher and supervisors reflectively engaging with the participant’s account in order to create meaning of their lived experiences (Smith et al., 2008).

Essentially, this involved: reading the transcripts and listening to the audio-recordings, re-reading the transcript again and taking note of any interesting points (being open to flexible thinking and subjective interpretation of context) regarding the content, use of language, or conceptual understandings of the

data, developing emergent themes that emerged from the exploratory notes, and finally, mapping interrelationships, connections and patterns between the themes (Smith et al., 2008). After the first steps of reading and re-reading data, a table of significant meaning (using exploratory notes) was developed for each participant (a sample of which is provided in Appendix E). Then, these interpretations of meaning were discussed by the researcher and one supervisor (EB) who together developed a synthesis of emergent themes. The interview transcripts were then read again and audio recordings listened to by the researcher, and read by another supervisor (LB) who discussed the interpretations and themes together with the researcher through a broader thematic analysis approach (Guest, MacQueen, & Namey, 2011). This entailed a process of charting and mapping the established themes into a broad and overarching account by coding the themes in terms of how often and how strongly they were represented by the various participants. Themes were drawn on a large mind-map and discussed in terms of their relationships to one another. Similar themes were grouped together which then led to the identification of overarching themes and classification of sub-themes. Contextualisation of participant circumstances was also key in analysing data, which led to the superordinate themes discussed in the results section. Interpretative Phenomenological Analysis was an important framework in this study because it allowed for an examination of the detailed descriptions of Karen participants' experiences of resettlement and sport and PA participation, by understanding how Karen individuals experienced these personal and social events. Discussing broader themes arising from the overall interview interpretations through a more

thematic analytical lens then allowed the establishment of meaningful patterns and identification of recurring themes, particularly for contrasting the different groups. Thematic analysis was only used for the purposes of organising and categorising the large set of rich and detailed data. Interpretative Phenomenological Analysis was, however, the primary analysis method, which gave contextual meaning. Qualitative analysis rigour was managed by two supervisors (EB and LB) who are skilled and experienced in both IPA and thematic analysis. Both supervisors overlooked and provided their expertise on the entire analysis process by the researcher. The researcher and the supervisors cross-referenced their findings at each point of the analysis process. Where there were variances in the overall sense of themes or meanings, consensus was reached by re-reading the transcripts in question and discussing the results with another supervisor (RP). The researcher attended various types of qualitative research workshops and training sessions facilitated by VU and other training organisations.

4.3 RESULTS AND DISCUSSION

Participants consisted of 9 males and 5 females with a median age of 34 years. The newly arrived group had spent an average of 10.4 months in Australia, while the recently arrived had spent an average of 4.2 years. Three participants did not have children, whilst the average number of children per participant family household was 2.6. Participant characteristics are detailed in Table 4.1.

Table 4.1 Study 1 participant characteristics

	Participant Name	Gender	Age	Time in Australia	Children
<i>Newly Arrived</i>					
1	Paw Htoo	M	39	9 months	3
2	Kenny	M	28	9 months	2
3	Ler Moo	F	33	9 months	0
4	Denni	M	34	10 months	1
5	Lily	F	44	12 months	2
6	Sami	M	28	12 months	2
7	Hsar Ku	M	23	12 months	0
<i>Recently Arrived</i>					
1	P'leh Paw	M	33	3 years	3
2	Htee Mo	M	42	3 years	2
3	K'lah Paw	M	40	3 years	4
4	Esther	F	41	3.5 years	4
5	Ma Ler Paw	F	40	5 years	3
6	Jay	M	27	5 years	0
7	Louin	F	29	7 years	3

Understanding how a Karen individual negotiates cultural differences and experiences of belonging in Australia provided a deeper understanding of how these individuals perceived health, and in turn, how this affects sport and PA participation in Australia. Three key overarching themes emerged from the results; 1) being Karen in Australia, 2) Karen perceptions of health and health behaviours, and, 3) sport in Australia. Results from this study suggest that concepts of sport and PA for the Karen are intricately linked to a sense of identity and belonging to the Karen as a group. Participation is directed by activities that support the fulfilment of culturally defined roles which strengthen and maintain Karen identity, and are intrinsically valuable and meaningful for participants. In

turn, fulfilment of these roles and maintenance of a strong sense of cultural heritage contributes to an overall sense of health and wellbeing (See Figure 4.1 for an illustration of the results). Many of the individual stories and these overall themes led to one of the most important findings of this study; an apparent sense of a 'superficial understanding' of Australian health behaviours. This finding, as well as the three key themes, are presented and discussed in order below.

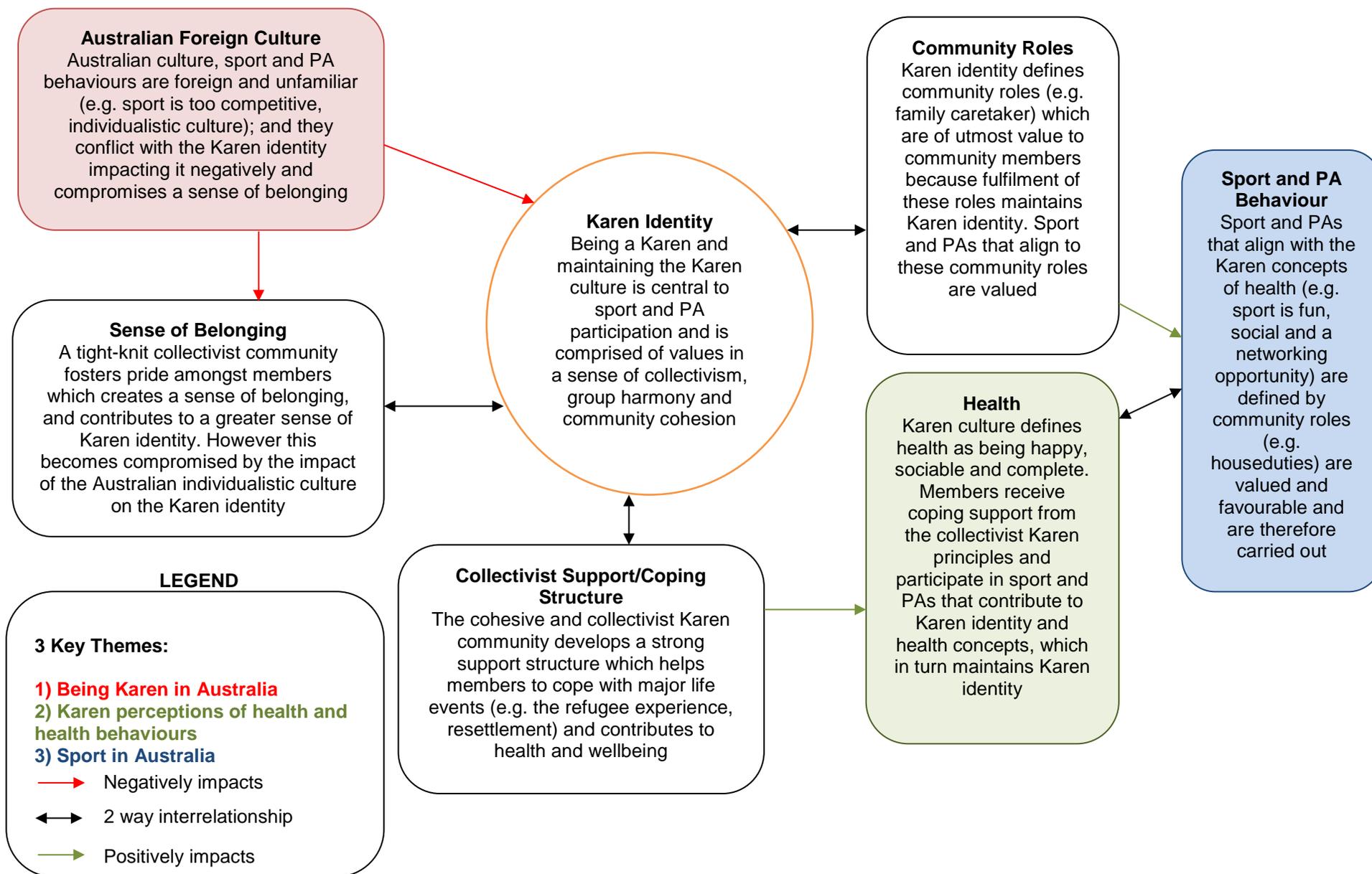


Figure 4.1 Illustration of Study 1 main findings

4.3.1 Being Karen in Australia

Being Karen brings a sense of great pride for the participants, particularly in reflecting on their shared experiences as a group. Paw Htoo, a male participant who had been in Australia for 9 months at the time of the interview stated “for me it is the greatest blessing, we are a big group of people who have experienced a lot in our lives, our experiences are invaluable.” The meaning of being Karen did not change after settling to Australia for any participant. Many participants referred to the importance of maintaining the Karen identity and belonging to the Karen, even after resettlement. K’lah Paw (Male, 3 years in Australia), illustrated this by confirming that even after 3 years, his identity as a Karen “never changed, I am still Karen.” Having a strong sense of Karen identity is consistent with cultural literature outlining the collectivist nature of the Karen (Karen Buddhist Dhamma Dhutta Foundation, 2011; Schweitzer et al., 2011). Maintaining Karen identity was important for all of the participants in one way or another and a concern for children who may ‘lose’ this Karen identity through the process of ‘adopting the Australian culture’, was a strong indicator of this. For example, Esther (Female, 3.5 years in Australia), a mother of four, responded to a question asking what it would mean for her if her children forgot to speak the Karen language by stating “I feel like, unhappy, heartbroken, because even [though] we are here we should know ourselves, we are Karen, we belong to Karen.” Moreover, in response to a question on the negative experiences of settling in Australia, P’leh Paw (Male, 3 years in Australia), a father of three said:

Yeah, like the first thing is like adopting culture... I am pretty worried for my children... I have got friends, and some of their children they speak most of the time in English language, they do not want to use Karen and this is why definitely for the future, they will lose this.

Participants perceived settlement in Australia as having positive outcomes, but also barriers, which relate to the maintenance of this Karen identity. Australia was viewed as an 'advanced' country with laws, freedoms, an availability of fresh food, high standards of living and advanced education and health care systems. In general, Australia was perceived as being mostly safe in comparison to 'back home'. Participants very rarely discussed their experiences prior to settling to Australia during audio recordings of the interviews. At times, after the audio recording was turned off, participants discussed their experiences of 'always running from the army' at their homes prior to the refugee camp, and 'not having freedom to go where I want' in the refugee camps. Many participants expressed their happiness in being able to 'go wherever I want' in Australia.

However, barriers with settlement, such as unemployment, parenting children and the English language, were challenging and made some participants feel unsafe. For example, Paw Htoo discussed safety concerns in Australia stemming from his inability to 'defend himself' using language:

If we have been continuously bullied or mistreated and then we no longer put up with it, and if we then react to the person, then we will be the one that gets into trouble since we can't explain ourselves due to language

barriers. It is so crucial for us that we should avoid conflicts at all times (Paw Htoo, Male, 9 months in Australia).

As an 'advanced' society, Australia was perceived as having more 'freedoms' and 'children's rights', yet this was usually expressed as a concern. Parents conveyed their powerlessness in raising children in a way that is familiar to them from home, including disciplining them by physical means, which may be unlawful in Australia. Disciplining children has also been suggested as a settlement challenge for Karen refugees who have settled in the United States (Centers for Disease Control and Prevention, 2010). This concerned the parents about their children's futures in Australia. Parents who discussed this issue reflected on how these 'freedoms' can cause children to make 'mistakes' (e.g., take drugs), and were therefore fearful that they could not protect their children from making bad choices the 'Karen way', which their own parents employed back home. Although all participants showed appreciation of the positive outcomes of settling into the 'advanced' Australian culture, there were things in Australia that did not necessarily fit into the concept of Karen identity. Australia was often perceived as being different to the Karen culture in terms of its individualistic approach. Ma Ler Paw (Female, 5 years in Australia) discussed these differences in her reflections of her culture and the Australian individualistic society, which encourages people (even families) to be independent:

Everyone got their rights, that's why yeah [it] looks like, oh no I don't need you anymore, I mean even the family would like to stay apart from each

other, or friends, not really like in our refugee camp, in the camp, looks like where we really cooperate and helping each other. But here, in my point of view, I can see these two are different (Ma Ler Paw, Female, 5 years in Australia).

There was a sense that this Australian influence promoted individualism and the separation of groups or families, which was perceived as a threat to the Karen identity. The concept of community and collectivism is central to Karen identity, thus in maintaining the Karen identity, it is important to exhibit this collective cohesion. Each individual has a responsibility to carry out roles and tasks which create, and contribute to, this sense of community. Denni, a male who had been in Australia for 10 months, exemplified this when he discussed what a healthy community meant for him: “these communities for example, if we cooperate, we gather together, understand each other that each has his or her own responsibility, the community is full of strength, health, and happiness.” Preserving Karen identity and belonging to the group despite ‘necessary’ requirements to adapt to certain influences in Australia was important for participants. This process maintained cohesion amongst the group, allowing them to bond social support structures and support each other to cope with the challenges of settlement discussed above. Paw Htoo discussed this in reference to each community member’s responsibility to maintain their cultural heritage:

We may be here in a new culture, but to remember to maintain our culture, tradition, and manner. I mean that, when necessary to adapt, we should

adapt... but it is our responsibility to maintain and look after our own community (Paw Htoo, Male, 9 months in Australia).

These responsibilities often included community defined roles, which were represented in various forms, for example the role of the family caregiver, or financial provider. Participants emphasised the importance of maintaining the Karen identity by satisfying the tasks defined by Karen cultural expectations:

For me, I think the healthy community starts from house to house, like, you have the husband and wife, they love each other according to their commitments, and then not only in their house, but with other people as well like friends, loving each other, helping each other, helping [with] everyone's needs (Esther, Female, 3.5 years in Australia).

Most of the female participants were responsible for household chores. However, these roles were not always limited to gender; for example, Htee Mo (Male, 3 years in Australia) was married with two children. His daily routine involved waking up before the rest of the family to prepare and cook breakfast, and prepare dinner for the whole family at the end of the day.

4.3.2 Karen perceptions of health and health behaviours

Belonging to 'the Karen' and maintaining strong Karen collectivist ties was the basis of being healthy, and fulfilling the above mentioned community roles contributed to an overall sense of wellbeing for participants. Karen concepts of

health and healthy behaviours are intricately linked to Karen identity. Being unhealthy created an impediment in fulfilling community defined roles and maintaining Karen identity. Ma Ler Paw (Female, 5 years in Australia) expressed being unhealthy as a “hassle for me and for others who have got to do with me are also affected” because she cannot do her usual duties (e.g., look after her children). The perception that Ma Ler Paw negatively impacts her family by being unwell correlates to research on PA behaviours conducted with Latina females, whereby some participants felt that participating in PA was a ‘neglect of family duties’ (Snape & Binks, 2008). However, feeling healthy allowed participants to fulfil their roles: “health for me is very important... if I am healthy then I can do work and then I can help my family...” (K’lah Paw, Male, 3 years in Australia). When participants were asked how they felt when they felt healthy, the responses were consistent among all participants and included experiences such as feeling happy, feeling like sunshine, smiling, and feeling complete or whole:

If a person is happy he is always healthy, I mean when a person is satisfied with his life... pleased with what he’s got in his life, he doesn’t need anything else. Everything to him is complete. So then he is healthy (Lily, Female, 14 months in Australia).

Some participants experienced ill health through physical symptoms, such as headaches or backaches. However, when describing ill health, all participants reflected on psychological constructs of ‘not being healthy’ such as feeling dark, sad, unhappy, not wanting to socialise and feeling angry because of an inability

to do anything for others (e.g., family). Sami, a male participant who had been in Australia for one year at the time of the interview, stated:

I feel like sunrise when I am healthy and I want to talk to everybody and when I am not very healthy, then I am very aggressive and I feel like I am in darkness (Sami, Male, 1 year in Australia).

These psychological constructs of ill health may also reflect a spiritual or religious approach to overall health. Research with Karen refugees who have resettled in the United States suggests that even after resettlement, participants continued to rely on traditional medicine and perceptions of health. This often involved spiritual contexts of health (Oleson, Chute, O'Fallon, & Sherwood, 2012). Nevertheless, each person has a responsibility to fulfil a role contributing to an overall healthy Karen community, which in turn allows the community to advance and progress together. K'lah Paw expressed that good health allowed him to continue working to provide for his family. However, ill health or not feeling healthy impacted on an individual's ability to carry out such responsibilities. For example, Ma Ler Paw stated that she gets angry when she is unhealthy because she cannot fulfil her caregiver responsibilities to her family. If one is unable to contribute to the health of the Karen community through these 'individual responsibilities' to maintain the bond within the group, then the Karen community's resilience, cohesiveness, and ultimate advancement or progression, become compromised.

There was also an understanding of mind, body, and spirit being in harmony in order to achieve a sense of health and wellbeing. Having a faith, religion, and/or spirituality was associated with being useful, particularly in achieving this sense of overall health. It was also perceived as being useful for life in general, such as providing a purpose in life, building and maintaining relationships, happiness, and providing a source of strength or solidity. However, participants also stressed the importance of health standards in Australia and their commitment to attending family doctor's appointments and medical checks at the hospital. This finding suggests that the Karen are in a process of combining traditional perceptions of health and healthcare with Western practices (Oleson et al., 2012) which are perceived to be 'advanced' and are therefore desired. Healthy Karen communities were described as happy, smiling, individuals taking responsibility for their group, advancing/progressing together, hardworking and cooperating together:

To me a healthy community is loving, united, cooperative, hardworking and happy... whether you can live up to those standards, it depends on each individual. The main thing is we ourselves have to try to live these ways, if you want these qualities, then you are the one responsible to live in a way of proving these qualities are right (Paw Htoo, 9 months in Australia).

Participants cited various aspects that related to health such as sweating, sanitation, hygiene and an abundance of fresh food. However, the general Karen

understanding of health was primarily a psychological sense of wellbeing, completeness, community cohesion, and happiness. Yet, the results suggested that there appear to be no direct links from this Karen understanding of being healthy, and health behaviours that were described as being 'good for your health', such as participating in PA. For example, K'lah Paw reflected on health by stating "if [I'm] not healthy then everything looks dull, gloomy." For K'lah Paw, a healthy community was characterised by being happy, and being healthy allows them to progress and advance together. However, when he discussed PA and sport in relation to health and how it was 'good for him', he stated: "physical exercise is really good for health... if I am not doing exercise... looks like, all my body or muscles [are] aching." In his reflections on health, sport and PA, there appeared to be no connection between the health behaviour, physical exercise (which had an effect on his 'physical' muscles), contributing to K'lah Paw's overall ideas of health as 'happy', 'progressing together', and 'not gloomy'.

PA was often therefore superficially raised as a health behaviour, unless, however, it directly related to, and was necessary in, supporting ideas that were instrumental to the Karen understanding of health, such as being busy looking after children. Some researchers have suggested that being physically active can be considered culturally normal for some women (Caperchione et al., 2011) and being busy throughout the day even considered as culturally favourable by some ethnic groups (Eyler et al., 1998). There was a wide range of understanding of PA. Some participants cited going to the gym, running or walking as physical activities, whilst for others it was an overall sense of busyness, and doing

household chores. Physical activities such as 'providing for the family' or 'being busy' as a caregiver were therefore valued by participants because they supplemented this idea of health. The meaning and intrinsic value of other types of physical activities appeared to be superficial. This finding suggests that there is an awareness of health behaviours, such as regular exercise or a balanced diet, and their contribution to health, in this community. However, there is no understanding, or perhaps agreement, that these behaviours make one healthy, in the Karen understanding of the concept at least. This may be because participants felt that they wanted to please the researcher by providing responses that were expected of them, a form of socially desirable responding (Paulhus, 1984). However, some researchers have suggested that individuals from certain cultures may be more concerned with socially desirable responses. Lalwani, Shavitt, and Johnson (2006) suggest that it may be individuals with more individualistic orientations who are more concerned with seeing themselves in a positive light, opposed to more collectivist-oriented individuals. There is also a possibility that family doctors advised participants that behaviours such as 'going to the gym' are positive to health. Or, perhaps participants would have observed related health messages in Australia (e.g., on television, advertisements at health clinics) from which they would have concluded that such behaviours influence their health positively. However, participation in the physical activities that participants identified (e.g., running, going to the gym) in this study, did not show a direct contribution to the Karen perception of health as described by the participants and were therefore not internally meaningful and carried out.

In general though, there was little discussion of PA and most participants tended to discuss sport more frequently. This is a particularly interesting finding in relation to the finding of the systematic literature review (Chapter 2, Review of Literature) which concluded that the majority of research with CALD communities was focused on PA and not on sport. This indicates that sport is perhaps a more relevant, comfortable, or appropriate method for some culturally diverse groups to be physically active. Thus, reiterating the need for more research which focuses purely on sport and CALD communities, and potentially leads to more sport oriented interventions in practice. All participants acknowledged that sport and PA participation was 'good for your health', most participants also acknowledged 'healthy food' as being 'good for your health'. Yet, in all interviews, there was little discussion on how these health behaviours led to the experience of being healthy, as understood by the Karen. For children in the Karen community to be healthy, most participants discussed the idea of the 'right time' for children to eat, play, and sleep:

For their children to be healthy... parents let their children play at the right time, sleep at the right time, everything has its time... if they don't feed them at the right time later on something might happen to them (Hsar Kur, Male, 1 year in Australia).

Overall, there was less in-depth discussion of health overall with newer arrivals, however their perception of health was similar to those recently arrived. The only slight difference found was that recent participants tended to reflect more

thoroughly on cultural differences, such as identifying Australia as a 'sporty country', when discussing health and healthy behaviours.

4.3.3 Sport in Australia

Sport was discussed in more detail and much more frequently than PA, particularly in relation to the differences between Karen and Australian concepts of sport. Sport in Australia was perceived as being structured, a space to be 'famous' and an overall 'advanced' version of sport. For example, participants often discussed the better quality of the grounds in Australia. However, there was often acknowledgement that sport required money, special equipment, or extra coaching for Karen people to be able to participate in Australia. This finding is consistent with research conducted on sport with other cultural groups (e.g., Amara, 2013; Doherty & Taylor, 2007; Taylor, 2003; Wilson, 1998). In discussing sport in Australia, Esther (Female, 3.5 years in Australia) said, "It is very important for Australian people, some may be for fun and then some to compete, sometimes, when they win they celebrate... when they win, looks like only one group [is] really proud of themselves." Sport in the Karen community, or sport 'back home', was described as being 'different'; spontaneous, fun, social and provided a means of celebration and networking through competitions which were held for special occasions (such as Karen New Year). In discussing sport for the Karen community, Esther continued on to say:

Yeah, in my community I think that [sport] is important and I think, especially when you can play any sports, looks like, yep you can bring up

your community name a bit. For example, if someone in the Karen community can play footy for example really well, then it looked like even the Karen people can play... then everyone looks very proud of [the] Karen community, so I think that's really important (Esther, Female, 3.5 years in Australia)

The Karen concept of sport was perceived as primarily being collectivist, sociable and an opportunity to build networks and get to know others in the community. This understanding of sport relates to the Karen concept of health and wellbeing, particularly in relation to community cohesion. Paw Htoo (Male, 9 months in Australia) reflects this in describing what sport meant for him and his community by stating:

Where we came from, we organised sport programs in order to increase the networking between people. Also, for the young people to socialise and understand each other better. So where we came from, we would do sports to increase the community health and wellbeing (Paw Htoo, Male, 9 months in Australia).

Thus, the Karen perception of sport seemed to contribute to their experience of wellbeing and being healthy. Sport back home, or even sport played casually in Australia with Karen friends, was played for fun, for socialising and for strengthening relationships with one another. Participants did not discuss any physical aspects of health in relation to sport (as was done when discussing PA),

the focus was primarily on socialising and interacting. This finding suggests that sport for the Karen community has significant connections to cultural and social outcomes which impact on health and wellbeing overall. Unlike PA, whereby only specific activities (e.g. those that fulfil culturally defined community roles), sport in general is perceived as being highly prized in terms of maintaining the Karen identity and culturally significant values such as collectivism and strong community bonds. The 'Australian concept' of sport was perceived as being quite different. Esther made the observation that if one Karen person was recognised for playing a sport well, then the whole community would benefit because everyone would be 'very proud of the Karen' as a group. This again emphasised the concept that each individual in the group has a responsibility to contribute to group unity and strength. She contrasted this with a perspective on Australian sport, whereby if one team wins; it would only be individuals within the winning team who would be proud of their own achievements, rather than being proud of their wider community groups. Sport was primarily associated with youth and young people, and some participants believed they were too old to play sport. This finding is consistent with the general findings of the systematic literature review (Chapter 2, Review of Literature) which suggested that younger age was associated with increased participation in PA (e.g., Marshall et al., 2007; Seo & Torabi, 2007; Swenson et al., 2005). Lily (Female, 14 months in Australia), who was 42 years old at the time of the interview, perceived herself as being too old to partake in sport when discussing sports she partook in in the refugee camp before coming to Australia: "athletic running, soccer, volleyball, basketball. I still have an interest in them but I am too old for it now." There were also different

activities which appeared to be culturally appropriate or acceptable for individuals to participate in according to gender and age. Ma Ler Paw (Female, 5 years in Australia) illustrates this when discussing different types of activities in her community: “for the young people, they play soccer and also volleyball... most of the people [who] participate in sports are young people.” She then continued on to describe how she progressed from a stage of playing ‘chasing’ when she was a child, through to playing volleyball as a young adult:

We just played together with our friends, members in our community... the boys would play soccer, for us, we played chasing and... skipping... we played volleyball... we were young, we were catching up with friends, that was the stage past the stage of playing chasing... we grouped up in small teams and then played together (Ma Ler Paw, Female, 5 years in Australia).

Many participants considered themselves to be ‘too old’ to participate in sport. Considering the median age of the participants was only 34 years old, this was an interesting finding. It may be due to the lower average life expectancy at birth in Burma (Myanmar), which is 64 for males and 68 for females, compared to Australia, where it is 81 for males and 85 for females (World Health Organization, 2012). However, it is most likely that this is simply due to sport being an age defined culturally appropriate activity in the Karen community, of which higher intensity activities such as athletic running and soccer, are usually reserved for the youth to partake in.

In Australia, most of the participants had only engaged in walking as a regular form of PA, primarily for the purpose of transport and walking children to school. Some participants had played sports casually in Australia, which were organised through English language classes or local settlement service providers. However, for all but one newly arrived 23 year old male participant (Hsar Ku, 1 year in Australia) who played soccer with friends casually, there was no regular participation in sport and PA in Australia. Yet, twelve participants discussed being involved in regular PA or sport 'back home'. Lily (Female, 14 months in Australia) was the only female participant who had played soccer, either before coming to Australia or after coming to Australia, whilst six males reported playing soccer back home or in Australia. Most of the female participants reported playing or having an interest in volleyball.

All but one participant stated that soccer is the most common or popular sport in the Karen community, along with caneball (a traditional game played with a ball made of cane that is kicked over a net with a similar set up to badminton), and volleyball. Half of the participants stated that soccer was not a common or popular game in Australia, and nearly all participants said that Australian Rules Football ('footy') was the most popular sport in Australia: "it's my understanding that they normally play footy, yeah um, I rarely see them play soccer" Kenny (Male, 9 months in Australia). According to the Australian Bureau of Statistics, soccer is the third most popular sport nationally (Australian Bureau of Statistics, 2012). This perception that soccer is not commonly played in Australia may relate to the differences in the way sport is structured and played in Australia and in Burma. Participants expressed that playing sport back home, or in the refugee

camps, was often spontaneous and played in common, big open spaces, in contrast to the 'special made place for specific sports' in Australia. There were no structured membership or club procedures, nor was there a requirement to have particular equipment or permission (e.g., Council booking or payment processes) to use grounds to play, which are all common practices in Australia. Thus, not being a part of the structured process of sport in Australia, participants may not have had an opportunity to see others play soccer, or personally experience it. It is likely that this perception of soccer not being played commonly in Australia is a reflection of cultural differences in the value and meaning of sport. For Karen refugees, sport is perceived as being integral to the effective functioning of the community as a whole, and an essential component to the collectivist nature of the group. However, Australian culture is perceived as being individualistic and 'advanced', therefore sports like soccer (which essentially promote socialisation, networking, and happiness) are not commonly performed to achieve these outcomes. In contrast, soccer is reserved for the advancement of the individual who is financially and linguistically capable of accessing spaces that are unique and 'special' to this one particular sport. Moreover, albeit sport is often discussed as being a catalyst for integration, inclusion, and resilience in resettled refugee communities (e.g., Agergaard & Sørensen, 2010; Hatzigeorgiadis, Morela, Elbe, Kouli, & Sanchez, 2013; Skinner, Zakus, & Cowell, 2008; Walseth & Fasting, 2004), some researchers suggest that participation in sport in the host country may lead to feeling socially excluded because of language difficulties and unfamiliarity with mainstream sports (Doherty & Taylor, 2007). Feeling socially excluded would be a significant stressor for the Karen community, particularly

considering their desire to belong to the wider community group, but also the high level of significance placed on social connectedness and collectivism for overall health and wellbeing. Thus, participating in the Australian version of soccer, which is performed differently in the mainstream, may be inappropriate or detrimental to this community group.

In Australia, and Victoria in particular, there is strong media presence and support for footy, which is not as strong or largescale as it is for soccer. This could potentially explain why participants perceived soccer to be less common in Australia. Almost half of all participants stated that footy in particular required a specific muscular physique to play, and found this to be frightening, or a challenge, for the Karen; “maybe if among the Karen people, I play footy... because my body is not big enough to play footy with other [Australian] people” (Kenny, Male, 9 months in Australia). When Paw Htoo (Male, 9 months in Australia) was asked if he would consider participating in boxing in Australia, a sport he participated in back home, he replied with a comment regarding physical differences between himself and others in Australia: “no I don’t think so, people are much taller here, our height and their height? I think I would have to be matched with a new born here.”

4.4 STRENGTHS AND LIMITATIONS

This study had several strengths. It provided much needed insight into the cultural context of sport and PA behaviours of an at-risk CALD group in Australia. These insights are important in the development of practical initiatives targeting

increased sport and PA participation of Karen refugees. Moreover, the study highlighted some key challenges in working in a cross-language and cross-cultural setting for qualitative research, and exemplified strategies that could be used to overcome some of these challenges. However, it is crucial to note that a major methodological limitation of this study pertains to how interpretation and translation affected the quality of the data. For a detailed discussion of the methodological issues in cross-cultural and cross-language research, please see Chapter 3, Overall Methodology. Moreover, due to the specific methodology of this study (a focus on idiography or ‘the particular’) and the sample size, the findings of the study cannot be generalised to the wider Karen refugee population.

Another limitation may pertain to data bias due to cultural significances. Education is highly valued in Karen culture, and community members hold high respect for teachers (who are referred to as ‘teacher’, never by their first name) and individuals who continue to study further. Thus, it may be possible that the researcher was highly respected for her academic goals in undertaking a PhD, and could have been perceived as influential or authoritative. Participants therefore may have told the researcher what she wanted to hear, in that sport and PA were ‘good for your health’. Moreover, the Karen culture is generally based on agreeableness and avoiding conflict, thus participants may have felt obligated to please the researcher by telling her the ‘correct answer’ to her questions, in hopes of not offending her or causing disagreements or difference in opinions.

4.5 CONCLUSION

This study aimed to develop an understanding of how participants conceived of and engaged with health behaviours in Australia. The results suggested that the Karen concepts of health, sport, and PA are different to the general Australian perception. The Karen concepts of health and wellbeing centre around the Karen identity, whereby fulfilment of roles and activities that support cohesion, group harmony and happiness create an overall sense of health and wellbeing. Sport and PA are important aspects of health for the Karen, however only in very specific ways relating to this overall sense of health and wellbeing. Although participants identified that sport and physical activities such as 'going to the gym' were important for health, there was little connection between such behaviours and feeling healthy. This may impact service delivery for this group. Service providers may conduct community needs assessments which are inaccurate or incomplete, or deliver services that are culturally inappropriate. For researchers in this field, this finding may indicate that a deeper understanding of health concepts and beliefs is needed in order to grasp a holistic understanding of sport and PA participation of Karen refugees.

Study 2 was therefore developed in response to the findings of Study 1 in order to explore salient themes and the cultural value of sport and PA in the Karen community in more detail, and over a longer period of time. Study 2 attempted to exemplify how a detailed understanding of various cultural factors of sport and PA participation can be obtained effectively, and if it could drive a culturally specific and effective sport and PA program for the Karen group.

4.5.1 Practical applications

The results of this study have important implications for both practitioners and researchers. They suggest that a more careful and broader approach to understanding the unique experiences that refugee and CALD migrant communities have is needed in this field. Researchers and practitioners whose work involves encouraging these groups to lead active, healthy lifestyles, can plan for extra time and resources in their projects to develop this broader understanding through the most appropriate methods for their groups. It is fundamental to explore the holistic picture of health with communities such as the Karen. This means delving into values, beliefs and attitudes of key concepts such as health, sport, exercise, identity, community, and cultural roles. This could be achieved by exploring the most culturally appropriate method of research and gathering data (e.g., focus groups, individual interviews) for the target group in research planning. It would also be important to focus on collecting rich and detailed qualitative data. It is through this type of research that a context in which to truly understand the behaviours of these groups can be achieved, and options for addressing issues appropriately and effectively can be discovered.

**CHAPTER 5: “BACK IN MY HOME COUNTRY... YOU HAVE TO
WALK LONG DISTANCES”: ASSESSING SPORT AND
PHYSICAL ACTIVITY BEHAVIOURS OF
KAREN REFUGEES OVER TIME – STUDY 2**

5.1 INTRODUCTION

The previous chapter suggested that Karen refugees' concepts of health, sport and PA, are intricately tied to their sense of identity as a Karen. Thus, sport and PA that contributes to a sense of Karen identity and Karen concepts of health and wellbeing, such as playing soccer to socialise and taking care of children, were valued and carried out. Acculturation and changes to lifestyles that occur during resettlement to a relatively culturally distant (Berry et al., 2011) society impacted on Karen identity, and in turn sport and PA behaviours in Australia. Some aspects of Australian resettlement, such as the individualistic culture (which is observed to be present in sport that is played in Australia), was perceived as clashing with Karen principles. Therefore, only walking as a form of transportation was a regular form of PA for some participants (alongside others deemed to be valuable, such as taking care of children), whilst other participants engaged in informal soccer games with friends. Other sports or physical activities were perceived as being unfamiliar, or not contributing to Karen community defined roles.

Due to the culturally different perceptions of sport and PA that Karen participants expressed in comparison with Australia, resettling to Australia may be difficult and may increase acculturative stress (Berry, 2006). Thus, it is valuable to explore the Karen's resettlement experiences over time, and evaluate whether these cultural variables changed, or further affected sport and PA participation. The following study was founded on the basis that communities are dynamic and changing (Guerin & Guerin, 2007), particularly groups such as the Karen who are experiencing processes of resettlement and acculturation. In

general, research suggests that a longer time in the new country increases sport and PA participation of CALD migrants (see Chapter 2). The study was conducted over 12 months in an attempt to capture any of these changes, and develop a deeper understanding of the topic in light of these changes. The study specifically aimed to explore the salient cultural variables that arose from Study 1; the notion of being Karen in Australia, Karen perceptions of health and health behaviours, and experiences of sport in Australia, in more depth. The study also aimed to assess whether there were any observable changes (in the context of resettlement experiences) of these experiences over time spent in Australia. Through self-reported PA diaries, the study also aimed to gather a deeper understanding of the Karen community's sport and PA behaviours in Australia. Developing a more thorough understanding of Karen refugee experiences is an important step in comprehending their sport and PA behaviours in Australia currently, and for the future.

5.2 METHODS

5.2.1 Methodology

Guerin and Guerin (2007) stressed that research with refugee groups required amendments to common methodological perspectives to suit a time consuming process. Based on their extensive work with refugees, they argued that "Even those using 'qualitative' methods tend to use one- or two-hour interviews and write that up as a thematic whole, rather than peeling away over time... more and more of the context and dynamics of those themes" (Guerin & Guerin, 2007, p.

151). Thus, the aim of Study 2 was to 'peel away more layers' of sport and PA participation for Karen refugees, based on the findings of Study 1. Because of the time burden on participants, the most suitable methods of conducting the study were short interviews and a self-report diary of activities.

5.2.2 Participants

The initial proposal for this study was to invite Study 1 participants to partake in Study 2 for consistency and deeper exploration of themes pertinent to each participant. However, towards the end of Study 1 and beginning of Study 2, half of Study 1 participants had migrated to rural Victoria (Bendigo and Nhill) for employment. A local Wyndham newspaper published in October 2013 reported that 120 Karen refugees who were former Wyndham residents had relocated to Nhill for work and more peaceful lifestyles (Anderson, 2013). This was not uncommon with Karen refugees in the area, with many making secondary migrations after first settlement (e.g., approximately a year after) primarily for employment purposes. For example, during the PhD project and at the time of writing this thesis, Karen families in the Wyndham municipality were predominantly newly arrived, whilst families in the Hobsons Bay municipality (Laverton primarily) were recently arrived. During my employment with HBCC, I was aware of families moving from the Wyndham area to Hobsons Bay for work, due to the many manufacturing facilities and factories situated in Altona, Altona North, and Brooklyn (all located within the Hobsons Bay municipality).

Again, participant characteristics were similar to those in Study 1 (regarding their faith, areas of residence and history of migrating to Australia).

The fourteen participants identified themselves as Karen Christian Baptists and resided in the Western regions of Melbourne, Australia (predominantly Laverton), and had lived in the refugee camps on the Thailand/Burma border for several years (varying from 2 years through to 22 years) prior to their arrival to Australia. Again participants were organised into two groups according to their overall length of time in Australia; 7 participants were newly arrived (2yrs or less in Australia) and 7 participants were recently arrived (2-7yrs in Australia).

5.2.3 Role of the community leader and recruitment strategies

Taw Doh Moo, a CLs who worked on Study 1 advised that he could not continue to work on Study 2 due to time constraints based on his recent employment in full time work. However, the second CL (Ida Bright) agreed to continue to work on the study and commit extra time to attend more interviews. Similarly with Study 1, the CL played a crucial role in the study and was an important aspect of the recruitment procedure (as outlined in Section 4.2.2, Role of community leaders and recruitment strategies). Participants from Study 1 who did not withdraw were invited to partake in Study 2, whilst the same recruitment strategy as Study 1 was utilised to recruit 7 additional participants; 5 newly arrived and 2 recently arrived. The Information to Participants form that was distributed in the same manner as Study 1 is attached as Appendix G. Some of the Study 1 participants who took part in Study 2 asked if they could recommend the research project to their friends to recruit, and through this process, they were also involved in recruiting new participants.

5.2.4 Procedures

5.2.4.1 *Interview guide*

Interviews were conducted in the same manner as Study 1, in that interviews were conducted with 14 participants in the Karen language with a CL interpreting into English. However, for this study, interviews were conducted three times over the course of 12 months; two longer interviews conducted at the start and end of the year, and one unstructured informal 'catch-up' session conducted midway through the year. A 'catch up' interview was scheduled for various reasons. To begin with, it provided an opportunity to maintain contact and engage more frequently with the group, creating a stronger rapport with the participants (which was important in building trust and a cooperative approach, particularly for the development of the intervention in Study 3). Secondly, it allowed the researcher to check the progress of the PA diaries, and maintain momentum and interest in the study. Lastly, the session provided an opportunity for the researcher to discuss any potential changes within 6 months, which participants may forget to discuss at the end of the year (December interviews). Some Study 2 interviews were focus group interviews, whilst others were individual interviews, based on participant requests. For the focus group interviews, the researcher asked the interview questions and all participants were invited to share their opinions one by one, giving the CL an opportunity to interpret each participant's response to the researcher. Interview schedules (Appendix H) were again constructed and delivered according to the IPA method (see Section 4.2.3.1, Interview guide, for more detailed information). The schedule for the first interview was amended once to clarify the meaning of a question using more meaningful wording (e.g., a

question asking participants to detail what health looked like for them was changed to “If I was a child who did not know what the word ‘health’ meant, how would you explain it to me?”). In total, all interviews in the study consisted of two full interviews; the first conducted in April, 2013, and the final interview in December, 2013, and one informal catch-up interview conducted in August 2013. In April, 4 individual interviews and 3 focus group interviews were conducted (Table 5.2). In December, 5 individual and 4 focus group interviews were conducted (Table 5.2). Interviews were conducted based on participant availability and suitable times according to work demands, school holidays, and other miscellaneous events (e.g., travelling interstate for a religious forum). Moreover, some participants were entirely unavailable to conduct the catch up interview due to stressful life events. In total, 4 participants could not attend the catch up interview for such reasons. It was not anticipated that their absence from the catch up interview would affect the results of the study as the catch up interviews were designed primarily to maintain momentum for the study, engage with the participants and build a strong relationship with the group, whilst capturing any data on significant life changes. The CL was asked to contact the individuals who could not attend the catch up interview and ask if they would like to discuss any significant life changes with the researcher at another time, or if they required any assistance with the PA diaries (which participants of the catch up interviews were also asked). Participants were advised that they could choose to have an individual interview or partake in a focus group interview. The focus of Study 2 interviews was a deeper exploration of common themes surrounding health and PA, and changes in perceptions, which could be obtained through

focus group interviews. Moreover, the Karen are a highly community oriented group, and many Study 1 participants often spoke ‘on behalf of other Karen’ when interviewed individually. It was hence the most favourable method, and there were no foreseeable issues with gathering data in a group setting for this study. For an overview of all interviews conducted, please see Table 5.2.

Table 5.1 Study 2 individual and group interview breakdown (in order of occurrence)

	First – April	Catch Up – August	Final – December
<i>Individual Interviews</i>			
	Ma Ler Paw		Ma Ler Paw
	Kenny		Sami
	Sami		Kenny
	Khin Le		K’lah Paw
			Khin Le
Total	4 interviews 4 participants		5 interviews 5 participants
<i>Group Interviews</i>			
	Esther, En Doh Moo and K’Lah Paw	Daisy, Ma Ler Paw, Esther, K’lah Paw, Eh Mon Ri, Tamora, Ruben and Harben	Daisy, Ruben and Tamora
	Htee Mo and P’leh Paw	Htee Mo and P’leh Paw	Eh Mon Ri and Harben
	Ruben, Eh Mon Ri, Harben, Tamora and Daisy		Esther and En Doh Moo
			P’leh Paw and Htee Mo
Total	3 interviews 10 participants	2 interviews 10 participants	4 interviews 9 participants

5.2.4.2 Sport and physical activity diaries

A sport and PA pictorial diary (a sample of English and Karen versions is provided in Appendix I) was developed in order to document participants’ activity behaviours over the course of the year. The aim was to evaluate whether there

were any observable changes between the types and intensities of activities participants partook in, and whether there were any differences in sport and PA participation overall between the groups. Participants were required to document 7 days (no requirement for consecutive days) of each month and choose or write down the type of activity performed, the intensity, duration, and their mood during and after the activity. The diary consisted of three groups of activities classified as high, moderate, and low intensity (Table 5.3). Pictures of activities were chosen to represent the different intensities, to assist participants to choose activities in a visual rather than written manner. Activities were chosen based on the most commonly reported activities in the Karen community through Study 1 and CL advice. These include things such as jogging, playing soccer, dancing/aerobics, riding a bike, walking, swimming, houseduties (e.g., ironing) and gardening. There were 5 different high intensity activities depicted and 6 moderate and low intensity activities (see Table 5.3 for all activities). Participants were advised that these were examples of activities and if they did not see the activity they participated in, they could choose a similar activity (e.g., folding clothes would be similar to ironing) or they could write down the specific activity. Participants were asked to note the time the activity was started and when it was finished by either writing down the times or drawing it on a blank clock face. The diary also required participants to document how they felt when they completed the activity by circling any of the following moods; happy, upset, tired, scared or bored, which were also depicted pictorially.

Table 5.2 Activities depicted in the sport and PA diary (categorised into intensity levels)

	High Intensity	Moderate Intensity	Low Intensity
1	Running or jogging	Gym workout (e.g., weights)	Yoga and Tai Chi
2	High impact sports like soccer or basketball	Moderate pace walking (e.g., brisk walking)	Low intensity yard care (e.g., raking leaves)
3	High impact aerobics	Swimming	Ironing and hanging up washing
4	High impact cycling	Moderate intensity gardening (e.g., weeding, heavy digging)	Vacuuming and sweeping
5	Skipping or boxing	Moderate intensity games (e.g., playing Frisbee in the park)	Low intensity gardening (e.g., planting and mowing)
6		Rollerblading and skateboarding	General household duties (e.g., washing windows)

Bearing in mind the time burden for some participants, the diaries were distributed at the first interview. This way, instructions were delivered to participants personally, and any issues or concerns were resolved at that time. The catch up interview was also used as an opportunity to discuss the progress of the diaries, and whether participants required any assistance such as monthly reminders. The diaries were submitted to the researcher at the final interview in December, 2013.

5.2.5 Data analysis

Interview data was analysed in similar fashion to Study 1; following IPA methodology and developing significant meaning by thoroughly reading transcripts and listening to recordings (please see Section 4.2.4 Data analysis for more information). The interview questions were based on the exploration of key

themes (Karen identity, sport, health, culture) which arose from Study 1, thus, the analysis was conducted within that context. The researcher conducted the primary analysis of all interviews, and sent a sample of interview data (50%) to one supervisor (LB) to analyse. Both of their interpretations were then discussed in subsequent meetings, and the overall conclusions based on those discussions were discussed with another supervisor (EB). Any potential differences between groups (newly and recently arrived) will be analysed by investigating whether different themes arose for each group (via coding and mapping of themes).

Diary data was analysed using simple codes and macros on a Microsoft Excel spreadsheet, which itemised each participant and their individual entries (including any qualitative inputs). Analysis of the diaries involved a simple process of running queries relating to the macros, e.g., all females - total number of minutes recorded for walking, and all weekdays – total amount of activity. Descriptive analysis will involve running macros for frequencies and utilising average scores.

5.2.6 Sustainability opportunities

From week two, negotiations with HBCC regarding the sustainability of the program had resulted in the Council agreeing to facilitate the PA aspect of the program for 5 weeks post completion. The initial plan was for the Council to arrange different instructors for the 5 weeks (e.g., karate, Zumba, aerobics etc.). Because the program ran on a Saturday, the Council officer at the Hub could not attend and facilitate the sessions. Thus, the CL and the researcher assisted

HBCC to identify two Karen youth leaders who would be responsible for the program, and would be the contacts for the instructors, translate and interpret as necessary, and link into their communities. For their assistance, the Council presented both youth leaders with a gift card and a certificate acknowledging their efforts, at the conclusion of the 5 week program. Nevertheless, this plan changed by the time HBCC took over the facilitation of the program. The Council officer made the decision to book three consecutive weeks of Zumba classes, after discussing with the CL how much the group appeared to enjoy Zumba during the graduation event. The Zumba sessions were held from weeks two to four, after the first week of a circuit boxing/aerobics activity. The last session was a 'sports carnival day', which was organised and facilitated by a VU Sports Development Diploma coordinator and her students. This arrangement was based on the Diploma students' final assessment requirement to implement a sports program, and the coinciding of the Karen family program with this. The idea came from the Diploma coordinator who contacted the researcher after reading a news article on the intervention. The sports carnival day was advertised via a flyer developed by the VU Diploma students, which was circulated throughout Karen networks from local service providers, the researcher, and known CLs. The day involved two modified versions of cricket and volleyball, suited for play with small groups and varying skill and age levels. Participants were divided into two groups and played each sport once for approximately one hour, supervised by 6-7 VU students. Before each game started, participants were given instructions on how to play (translated via the youth leaders) and split into teams. After an hour of playing, participants were

given a 15minute break. All participants received gift bags with healthy snacks, water bottles, blow up balls and other VU merchandise. A local volunteer community organisation donated baked snacks such as vegemite scrolls, scones, and mini pizzas for the day. A specific time during the carnival day was dedicated to recognising the contributions of the two youth leaders for taking ownership of the Council program. Both leaders were presented with certificates and their gifts in front of all carnival day participants and VU students. After the carnival day, the researcher, the HBCC Hub officer and the VU Diploma coordinator had a debriefing meeting, and discussed potential ways forward regarding the continuation of an active program for the Karen community.

5.3 RESULTS AND DISCUSSION

Participants consisted of 10 males and 4 females with an average age of 33.5 years. The average amount of time spent in Australia in the newly arrived group was 9.7 months, and 3.2 years for the recently arrived participants. In this group, two participants did not have children, whereas for those that did, the average number of children per participant household was 2.2. Participants were again provided with an option to give consent verbally if they felt more comfortable doing so, however all participants chose to confirm consent by signing the translated consent forms (English and Karen versions attached as Appendix F). Study 2 participant characteristics are outlined in Table 5.1.

Table 5.3 Study 2 participant characteristics

	Participant Name	Gender	Age	Time in Australia	Children
<i>Newly Arrived</i>					
1	En Doh Moo	M	36	5 months	2
2	Tamora	F	24	6 months	0
3	Ruben	M	35	6 months	2
4	Kenny*	M	28	9 months	2
5	Daisy	F	25	10 months	0
6	Sami*	M	28	12 months	2
7	Harben	M	38	20 months	3
<i>Recently Arrived</i>					
1	Eh Mon Ri	M	36	2 years	2
2	P'leh Paw*	M	33	3 years	3
3	Htee Mo*	M	42	3 years	2
4	K'lah Paw*	M	40	3 years	4
5	Khin Leh	M	23	3 years	2
6	Esther*	F	41	3.5 years	4
7	Ma Ler Paw*	F	40	5 years	3

* Denotes participants who partook in Study 1

In general, interview results indicated that participants felt that in Australia they have 'settled well' overall, or 'better' than earlier in the year, and that settling became easier over time. Nevertheless, cultural challenges were pertinent and impacted on participants' settlement experiences. Changes in lifestyles, where sport and PA were conducted regularly in the refugee camps and rarely in Australia, may have contributed to these challenges. Albeit sport and PA were valued for their contribution to health and wellbeing (in the Karen perspective), regular participation in Australia was rare, or non-existent. This was in contrast to high amounts of participation in sport and incidental PA back in the home country. Two overarching themes arose from the interview data: health and

acculturation (discussed in detail below), which built on the key themes of Study 1.

5.3.1.1 Interview results

The results from this study strengthened and confirmed the findings from Study 1, in particular by building on the major theme of Karen concepts of health, in the context of acculturation and resettlement in Australia.

5.3.1.2 Health

The overall sense of health (as discussed in the results of Study 1 in Chapter 4) was an overarching theme. Having good health was again stressed as being important for the attainment of Karen community roles such as being available for others in the family or the community, or attending school and studying. Ma Ler Paw (Female, 5 years in Australia) explained this in terms of her daughter's education being affected by instances of illness, which led her to "...worry for her health because by the time she needs to go to school and class, she has to go to the hospital." Most participants described a healthy state as vitally important because one could 'do things for others' and not 'disturb those around you', whilst others stated that being with their families helped them feel better if they were not healthy.

Some aspects of health were discussed in more detail than Study 1, particularly in regards to variables affecting health for the Karen in Australia. For example,

some female participants discussed their concerns with weight gain, which was perceived as an outcome of low PA participation, in comparison to back home. These changes in lifestyles were exemplified through discussions regarding Australia's sedentary lifestyle where labour intensive work and cars reduced the need to partake in PA. Similar findings were reported by Barnes and Almasy (2005), whose data suggested that less frequent use of cars resulted in an increase in walking behaviours amongst their refugee participants. In the first interview, Esther stated "It's not really similar, what's different is that, at a refugee camp, we have to gather firewood to make a fire for cooking. Here, we have nothing; we just put the rice in the cooker, that's it" (Female, 3.5 years in Australia). A few male participants also indicated their concern for their wives who had put more weight on in Australia. During the last interview in December, one of the participants' wives joined the group interview (albeit she was not a participant) and added to her husband's comments regarding her weight gain by stating:

I put on weight because 6 months ago, my husband didn't have a driver's licence yet, that's why I had to take my children to school every morning and then pick them up every afternoon. But now, my husband has a driver's licence already, so I don't need to walk my children to school anymore, drive instead of walk, big difference, that's why I put on weight (wife of Harben, Male, 20 months in Australia).

Participants engaged in incidental PA as part of everyday life back home based on their requirements to subsist (e.g., to gather food or visit a doctor). Sami illustrated this when he discussed differences in PA participation in Australia and back home:

Here, if you don't have a job and you have young children and you just stay at home, you can walk around the house and do housework, just that. Back in our home country, you have to go to the next village by climbing the mountain. It takes two to three hours so we already get our exercise right there (Sami, Male, 12 months in Australia).

The availability of cars and public transport in Australia negated the need to participate in PA for transport reasons, which was the key source of PA for all participants. A decrease in PA participation behaviours due to substantial changes from rural and labour intensive lifestyles to urban environments accentuating sedentary lifestyles has been proposed by other researchers (e.g., Guerin et al., 2003; Porter, 2002). As with findings from Study 1, there is a sense that life in Australia entailed the acquisition of tools such as cars and rice cookers, providing participants with 'nothing' that required their engagement in PA, such as walking to gather firewood for cooking. Some changes in lifestyle patterns, like having a car to take children to school, made life easier for participants; however impeded on their engagement in activities that were familiar or similar to back home. Some participants felt more healthy before arriving to Australia because of the increased amount of sport and PA they

participated in, and their diet which primarily consisted of 'locally grown fruit and veggies'. This finding contradicts much of the literature presented in Chapter 2 which generally suggests that individuals who were previously active in their home countries were more likely to partake in PA in the new country (Ng et al., 2007). The convenience and availability of a variety of food, cars for transport and other mechanisms that make life easier (e.g., lawn mowers) have primarily reduced their need to walk for long distances and partake in manual labour to harvest food as they did back home. The reduction of incidental activities attributed to everyday life which occurred when participants moved from Burma to Australia have contributed to a substantial loss of overall PA in this population. Such a dramatic change in lifestyle activities have a significant impact on health and wellbeing, and may be overlooked in research with refugees. Considering that the literature review (Chapter 2, Review of literature) suggested that in general, CALD communities were more likely to partake in PA if they were active prior to coming to the new country, the findings of this study suggest that more research needs to be conducted to evaluate the type of physical activities that CALD communities are more likely to partake in. As Guerin et al. (2003) found in their work with female Somali refugees, access to familiar and appropriate specific physical activities which were performed in the home country (such as labour intensive farming and gathering water) was severely restricted upon resettlement to New Zealand.

The notion of 'keeping busy' and occupational PA were at times perceived as providing adequate amounts of PA participation. The idea of obtaining sufficient

amounts of PA by 'keeping busy' was stressed particularly in the sense of maintaining Karen cultural roles (as discussed in Study 1, Chapter 4) such as performing household duties, playing the keyboard or studying. When asked how she felt regarding her health and wellbeing, Ma Ler Paw (Female, 5 years in Australia), a mother of three, was satisfied with her job as a 'housewife' and stated that there was 'no stress' involved. Daisy (Female, 10 months in Australia), who is a young single woman stated, "I practice my English, practice speaking English; I think it's a kind of exercise." Occupational PA provided other participants with a sense of 'keeping busy' and in turn, adequate amounts of PA participation. This concept is consistent with findings by Curry et al. (2015), whose South Asian female participants defined PA as a concept of 'keeping busy' and related to the amount of time they spent partaking in PA overall. Keeping busy was a concept that assisted participants to maintain Karen identity through achieving cultural roles, but also a support structure to cope with difficult times in life: "if you keep yourself busy, you don't think about negative things, it helps us to forget about sickness and other depressing things" (K'lah Paw, Male, 3 years in Australia).

Sport was again (see Study 1 results, Chapter 4) discussed in terms of health, particularly in relation to the social benefits it provides. However, when compared with back home, participants recognised that there were significant barriers to participating in sports in Australia. Most participants discussed physical comparisons between themselves and 'Australians' in relation to sport. K'lah Paw (Male, 3 years in Australia) stated that "Australians are bigger, taller and

stronger” and Kenny (Male, 9 months in Australia) said “totally different, they’re taller and bigger, that’s why I think they run quicker than me so I can say I’m totally different from them.” Because of these physical differences, some participants did not feel comfortable in playing sport with Australians:

The Aussies are quite big... I think I’m too small and short to play footy that’s why I don’t participate... They don’t care, they just grab the ball, their bodies are too big and they hurt me. I just played only once, I won’t do it again (Ruben, Male, 6 months in Australia).

The finding that participants do not feel comfortable playing sport with Australians is consistent with the literature outlined in Chapter 2 regarding increased PA participation with positive perceptions of ability to participate and self-efficacy (Albright et al., 2005; Castro et al., 1999; Marquez & McAuley, 2006; Yang et al., 2007).

As with Study 1 (Chapter 4) some participants expressed that Australia did not have common open grounds similar to back home where sport could be played spontaneously. Sport in itself was seen as more ‘advanced’ in Australia compared to the refugee camps or home prior to the camp. Players in Australia were perceived as being ‘advanced’ and having access to comprehensive grounds, uniforms, and coaches. Participants indicated that they ‘hardly see people playing’ sports that were familiar to them such as caneball, volleyball and soccer. Participants also expressed difficulty in finding time to play sports, even

with Karen community members. This was specifically discussed in relation to the 'pace of life' being much busier in Australia, and tending to children was more challenging because participants did not have friends or neighbours with whom to leave children like they did back home.

Common barriers to participation in sport and PA in Australia were transport, having nobody to play with, unfamiliar or unskilled in sports or activities commonly performed in Australia (such as AFL 'footy'), the English language, and no time due to looking after children. These barriers are consistent with the literature on research with other CALD communities (Belza et al., 2004; Bird, Kurowski, et al., 2009; Caperchione et al., 2011; Evenson et al., 2002; Eyster et al., 1998; Guerin et al., 2003; López et al., 2008; Mathews et al., 2010; Stodolska & Shiness, 2010; Taylor et al., 2008). Only two participants reported playing 'somewhat regular' sport (on a very casual basis). Other participants felt that they could not play soccer in Australia even though they played it frequently back home, primarily because the grounds were not accessible in the same way as back home or that the game was not commonly played in Australia. However, because some sports and physical activities were recognised as being valuable and culturally favourable, all participants indicated that they would like to be more physically active in Australia. Because sport was social, fun, and spontaneous back home, and PA was usually incidental, participants' perception of sport and PA in Australia (as described in Study 1 results) were very different. Thus, there was a desire for participants to learn new activities in Australia, as even similar activities to back home (such as playing soccer) seemed unfamiliar. These

particular dialogues led to the development of a Karen specific sport and PA program, which was discussed during the final interviews in December (for further details please see section 5.3.1.5 The Karen Sport and PA Program).

Service providers rarely consider the above-mentioned factors when developing health initiatives and programs for refugee groups. Drastic changes in lifestyle activity behaviours, and overall perceptions of health, should be addressed with such endeavours. The most effective method to do this would be to assess what behaviours and daily activities refugees had engaged in and were used to prior to their arrival to the new country. After gaining an understanding of past behaviours, service providers can better offer suitable programs that address any possible changes in lifestyle behaviours, as well as provide education and awareness of relevant system processes in the new country.

5.3.1.3 *Acculturation*

All participants discussed the positive aspects of living in Australia as an 'advanced society', such as high standards of healthcare, education, food availability, transportation, laws and welfare support. This was often compared to the 'less developed' conditions in Burma such as restricted freedom of movement, poor healthcare, sanitation, education, and nutrition. However, most participants felt that life in Australia was challenging, especially in relation to these changes in standards of living conditions. For example, Sami stated:

Living in our country was a bit easier than here... If you compare the standard of living here to our country, it's totally different. Here, everything

is under the law whether you work, go to school or look after someone's home. There are rules or laws for everything. In our country, it's not really like that... Now that I have a job, I have to go to work on time (Sami, Male, 12 months in Australia).

All of the participants also discussed these challenges in terms of the 'laws' and 'human rights' which dictated how they could raise their children. Back home, children could be disciplined by smacking and yelling, whereas these were 'not allowed' in Australia, and parents were concerned about not being able to guide their children to be 'good children'. Across the board, there was a desire to be part of the 'advanced society' and integrate into the 'high standard of living'. Many participants discussed planning to buy a car or a house, starting a training course, and even ceased drinking alcohol and wanted to stop smoking in response to health messages they had received in Australia either by watching television or from their family doctor. Comprehension of the English language was perceived as being a crucial catalyst for being a part of that 'higher standard' of living, as Sami illustrates when he stated that "here [Australia], people are really smart because they can speak fluent English" (Sami, Male, 12 months in Australia). Albeit all participants expressed a requirement to learn English and a commitment to attending classes regularly, some participants found it to be a time burden, or in contradiction to Karen culturally defined roles. En Doh Moo stressed "when we arrived here, we had to learn the English language, but for me, I don't have time to study or go to English class" (En Doh Moo, Male, 5 months in Australia), whilst Ruben stated "every refugee who arrives here has to

go to English class. In the refugee camp, we have a family, we didn't need to go to school anymore, only young people went to school" (Ruben, Male, 6 months in Australia).

Although resettlement to Australia provided participants with safety, security, and engagement with an 'advanced lifestyle'; this comes at a high cost, one which impacts upon their Karen identities (which, as suggested in results from Study 1, is vital to the group). The cultural rules by which an individual gains status in their community are very different in Australia compared to back home, and this is challenging for participants. The struggle to adopt the new 'advanced' Australian culture or maintain the heritage culture is evident, with one participant stating, "there are so many different things here we try to adopt but sometimes, we're not really sure if we want to adopt the Aussie culture or stick to our culture" (K'lah Paw, Male, 3 years in Australia). Berry et al. (2011) described this aspect of acculturation as the individual's intention to 'adapt' to the new culture or 'maintain' their heritage culture.

Another aspect of this challenging difference in standard of living was the concept of time, which many participants found difficulty in adjustment.

Participants acknowledged that time was an important notion for life in Australia, and many were still learning how to manage it because life back home was not centred around time. As an example, in discussing the differences in daily life from back home and Australia, Kenny (Male, 9 months in Australia) stated:

Here, if you go to work... you have to arrive on time, you have to start your work and do everything according to schedule. Back home in my country, in the refugee camp, we can walk to work, if you're late a little bit, it's fine but here, it's stricter.

Participants also had to learn how to manage time in day-to-day activities, such as seeing a doctor or attending the social services department:

In our country, if you go to see the doctor in the refugee camp, you can go anytime but here, you have to make an appointment first... the other one's Centrelink [Australian Government Department of Human Services], you have to go at the exact time to submit your form... I'm really afraid of Centrelink, if I'm late for my appointment, they tell me, you don't have a job anymore... you didn't come on time... if you're late you don't get paid (Eh Mon Ri, Male, 2 years in Australia).

Overall, however, the Australian culture was perceived as being very individualistic, and in conflict with Karen cultural values and way of life.

Participants gave several examples of this by indicating that in Australia older people lived alone, there was a lack of collegial assistance at work, and children left home at an early age, which were all 'very different to back home'.

Participants perceived the Karen and Australian cultures as being in stark difference to each other; "it's totally different and quite challenging to us as well... based on our culture, Aussie and Karen are totally different" (Harben, Male, 20

months in Australia). These differences and challenges were primarily discussed in terms of raising children and children's futures. Education was culturally highly valued, particularly for children and youth. However, parents were concerned that the school was a strong source of cultural change for their children, which made all of the participants worried for their children's futures. Some participants discussed differences in terms of 'cultural rules' such as eye gaze and calling names, which applied differently to Karen and Australian individuals:

It's quite challenging because we're not used to calling people by their names in our home country, even children call their teacher by name... at home we educate them differently from school, they are taught to listen to their parents while their parents are talking to them and not look at them directly, and when talking to the teacher, to bend down a bit, this means we respect them... when they go to school, they have to call the teacher's name and when they come back home, they call mum, dad, aunty, uncle, they're not allowed to call them by their names. Sometimes, they're really confused (Eh Mon Ri, Male, 2 years in Australia).

Other participants discussed the influence of the Australian culture from other children on their children during school: "my daughter doesn't want to wear Karen dresses... she wants to wear tights, really tight tights or leggings, my son likes hip-hop and sometimes, it's really noisy... maybe they copied from school" (Harben, Male, 20 months in Australia). Ma Ler Paw discussed her concerns about her children's engagement with parties and sleepovers by stating:

They [children] want to attend their friends' parties... it's pretty difficult for us because that's not part of our culture... we don't have sleepovers in our culture, the cross-culture confuses us sometimes, we feel that our children are safer in our house, especially our little girls... we don't want them to go sleepover in a friend's house that we really don't know or come from a different culture. It's hard and difficult for us (Ma Ler Paw, Female, 5 years in Australia)

These cultural differences were concerning for the participants because they acknowledged that 'children adopted the culture quicker'. As with Study 1 (Chapter 4), many participants were concerned that their children (or other children in their community) did not speak the Karen language frequently, or at all. Most participants agreed on the importance of family to 'get through' and 'cope' because part of the Karen culture is 'sticking together', which was often contrasted to the individualistic nature of the Australian society. However, they specifically raised concerns about children growing more distant from their families, especially in relation to children who adopt the Australian culture will leave home early and older people in Australia live alone (without children to care for them).

The rate at which children and parents 'learn' or 'adopt' cultural rules vary, and thus parents expressed concerns and difficulties in coping with children who 'adopt the Australian culture very quickly'. This Australian culture is perceived to be contradictory to core Karen values like collectivism, family orientation, and high discipline. In particular, there is acknowledgement by parents that children

adapt to the new culture quicker and easier, thus they become more distant from their families, and this in turn is extremely stressful for the Karen, especially because families 'get you through' and 'help you cope' with difficult life events. The more distant children become from their parents, the more likely that as they get older, they will live alone without their children to care for them. Similar instances of 'shifting power dynamics' between children and parents which create strains amongst family members is observed in Karen refugees who have resettled to the United States (Centers for Disease Control and Prevention, 2010).

Participants raised two key strategies for coping with these cultural changes for their children; finding a 'balance' of the 'good and bad of both cultures', and their religion or faith. Parents specifically reflected on their identification and conscious decisions to find a balance of the 'good and bad' aspects of both the Karen and Australian cultures. This was defined as a process of embracing the 'good bits' of the Australian culture such as the increased freedom of choice, and maintaining the positive aspects of the Karen culture, such as the 'tight-knit nature' of the family and community. Religion was also perceived as a provision for coping with the acculturation process, particularly in relation to raising children in a way that is familiar and consistent with the Karen culture. Upon reflecting on her worries about her children, Esther stated:

We worry about them [our children] growing up in this country because this country highly promotes freedom and independence for everyone. Part of our belief is to pray for them every day, we also tell them to read the bible and

make sure they understand so that they'll grow up to be good or near perfect children in this country (Female, 3.5 years in Australia).

5.3.1.4 *Diary results*

The most commonly reported activity was walking, which was reported an equal number of times for both males and females. The total amount of hours of activity reported was 596 hours, with walking contributing to 35% of the total. Except for rollerblading and skateboarding, which was never reported, all other activities were reported at least once. Males reported more higher intensity activities than females (males 79, females 50), whereas females reported slightly more moderate intensity activity than males (males 97, females 113). Both males and females reported similar counts of lower intensity activities (males 115, females 113). Albeit more total counts of lower intensity activities were reported than moderate intensity activities, participants spent longer time partaking in moderate intensity than lower intensity activities. Overall, participants spent 17% of the total time participating in high intensity activities, 44% in moderate intensity activities, and 39% in lower intensity activities. The highest numbers of hours recorded in any sport or PA was during the months of October (86.6hrs), November (96.2hrs) and December (80.3hrs), whereas the least amount of time recorded was during March (13.3hrs), June (32.8hrs) and July (34hrs). Due to the fact that many participants did not complete a whole 7 days of activity logs, it is difficult to deduce whether all of them engaged in the Australian guidelines recommended amount of PA per week (150-300 minutes of moderate physical activity or 75-150 minutes of vigorous activity per week) (Australian Government, 2014). However,

of those that did complete 7 days of activity logs for at least one month (n=8), the average amount of moderate intensity activity engaged in over a 7 day period was 61 minutes, and 38 minutes of high intensity activity. Thus, according to the PA diaries, more than half of the participants who recorded 7 days of activity logs for at least one month, did not engage in recommended amounts of PA per week.

The most commonly reported mood for all activities was happy; however, some participants did not document a mood relating to their activity. The activity most commonly reported as being associated with a happy mood was walking, whereas 4 instances of reporting an upset mood was associated with both sweeping and low intensity gardening activities. The second most commonly reported mood was tired, which was usually documented with general houseduties such as cleaning and washing windows. Overall, participants reported an average of five activities for each month, with only very few participants recording additional activities by writing their own descriptions. Of the activities that were supplied by these participants, the most common activity was going to church, whilst walking children to school and studying were also reported. There was no evidence of differences in sport and PA behaviours between the newly arrived and recently arrived groups.

This method of data collection may not have been appropriate as many participants skipped several months without documenting any activities, or did not document a full 7 days each month. Thus, it is difficult to describe some results, such as how much time was spent doing activities (and which activities)

during weekdays or weekends, due to the amount of missing information across the board. Many participants did not define the day of the week, or at times the duration of the activity, in completing their diary entries.

5.3.1.5 The Karen Sport and PA Program

During the final interviews, participants discussed the development of a sport and PA program that could address some of their pertinent barriers to participation. One of the initial aims of this PhD was to explore whether a culturally specific program could in fact increase sport and PA participation in the Karen community. However, dialogues about how such a program could be created naturally occurred during interviews without the researcher initiating discussion on the topic. When the researcher encouraged participants to discuss the logistics of a potential program, some participants requested to ‘try new activities’ to ‘get fit’ and ‘learn about health’. All participants agreed that the program should engage both adults and children together (whether separated in activities or partaking together) in a ‘whole family’ program, should be held on a Saturday and not during the winter months (June-August). When asked what type of activities participants wanted to see in the program, the most commonly suggested activities were soccer, dancing or aerobics and volleyball. At a group interview with Daisy, Ma Ler Paw, Esther, K’lah Paw, Eh Mon Ri, Tamora, Ruben and Harben, one participant stated that she had ‘no idea’ about other activities and wanted to ‘listen to’ the researcher for activity suggestions. This same participant group also suggested having health education as part of the program because they wanted to ‘learn about healthy lifestyles in Australia’.

5.4 LIMITATIONS

As with Study 1, one of the major limitations of this study pertained to the impact of interpretation on the qualitative data gathered. For a detailed discussion on the impact of this limitation on the data, please see Chapter 3 Overall Methodology, and Chapter 4, Section 4.4, Limitations.

The diary method of data collection also proved to be an ineffective method of capturing data in this population. Most of the participants did not complete full days, some did not complete all months, and one participant did not complete the entire years' worth of data (albeit no problems were raised about documenting activities in the diary during the catch up interviews). Although diaries were created to be easy to use (by utilising pictures and time-efficient methods of capturing information such as circling an emoticon representing a mood), it may have been the verbal nature of the Karen language and culture which contributed to this incidence. Although all of the participants were literate, they may not have been comfortable with writing or documenting life events. More to the point however, is that participants conceived of time differently (as shown in the results), and perhaps did not see the value or meaning in regularly completing the diary for a certain period, ensuring that they monitored the amount of time they spent on an activity. With some of these participants spending over two decades in the refugee camp (and many of their children being born in the camps), during this phase of their lives, time was an abstract concept. Some of the participants often described time (e.g., getting to work on time, appointment times etc.) as being a challenge in Australia. Camp residents were often not allowed, or provided with opportunities to work in the camps.

Thus, refugees did not have anything to do all day and would work in the farms, or play sports, or walk through the jungles. Concept of time in the refugee camps was therefore insignificant in daily life. Moreover, as is commonly reported in the literature (e.g., Adams et al., 2005; McCormack et al., 2004; Prince et al., 2008), a self-report measure such as the PA diary may not have accurately captured the amount of PA that participants completed. This may be because participants may forget to document their activities, or provide estimates that are under representative or over representative of the total amount of time they partook in an activity. In a study measuring the differences in self-reported and direct measures of PA, Prince et al. (2008) found that self-report measures showed both higher and lower levels of PA than directly measured levels.

Future studies of a similar nature could be conducted with native speaking or bicultural researchers to limit any cross-language and/or cross-cultural barriers. Furthermore, this study would have benefited from employing a more objective measure of PA, alongside the self-reported activity diary. These could involve the combined use of accelerometers (Curry et al., 2015) and GPS tracking measures, which would allow researchers to obtain richer data. This would have been particularly useful for this study, especially as a large proportion of reported activities were home based (e.g., moderate intensity gardening, housecleaning). In combining these objective measures, alongside a PA diary, researchers can monitor the amount and type of home based PA participants engage in by using the GPS tracker to identify sessions of PA occurring within the home location.

5.5 CONCLUSIONS

The results of this study suggest that the process of resettlement to Australia for Karen refugees is complex, challenging, and stressful due to the drastic changes of previous and current lifestyle activities, as well as Karen identity and cultural values, which stem from differences of Australian society and the Karen way of life. Participation in sport and PA is impacted by this process of resettlement because participation is closely linked to Karen identity and how a Karen individual perceives themselves as being healthy. However, for these participants, this concept of Karen identity is in a state of fluctuating confusion, or perhaps resistance, to the 'new culture' which is often perceived of as being negative, or going against the heritage culture. Varying differences in the rate of adoption of this new culture or maintenance of the heritage culture, as expressed by parents with their children, create stress and confusion within the group.

Practitioners and researchers who work with refugees need to understand how the processes of cultural changes in the context of resettlement can affect a target group's values and motivations to engage in sport and PA in Australia. Interventions or programs aiming to increase participation of refugee communities like the Karen, need to employ culturally specific methods that take into account these processes of change, particularly changes in previous and current physical activities, in order to engage refugees effectively. Furthermore, Government bodies must consider how seemingly simple concepts such as time, may be perceived differently by refugee groups and in turn, affect sport and PA participation in the new country. Thus, the findings of this PhD project highlight

the need for thorough consideration of cultural variables when working with refugee groups. An important outcome of this particular study was the development of a pilot PA program for Karen refugees, which attempted to address such culturally specific issues that were identified through the study (such as creating a comfortable and familiar version of sport, involving children with adults, delivering activities at an accessible and convenient time, and providing health information in the Karen language). With a substantial amount of input from the participants, the CL and three prominent Karen community elders, a Karen specific sport and PA program was developed to encourage increased participation in sport and PA in Australia. The program is detailed in the following Chapter 6, Active Families, Healthy Bodies: A New Way to Engage Karen Refugees in Active Lifestyles – Study 3.

**CHAPTER 6: ACTIVE FAMILIES, HEALTHY BODIES: A NEW
WAY TO ENGAGE KAREN REFUGEES IN
ACTIVE LIFESTYLES – STUDY 3**

6.1 INTRODUCTION

The previous two chapters suggested that processes of lifestyle and cultural changes and differences during resettlement affected participants' participation in sport and PA in Australia. Most participants had been involved in some type of sport or PA prior to settling into Australia, and yet very few took up these behaviours post settlement, unless they involved necessary activities, such as walking for the purpose of transport. In developing a deeper understanding of the Karen culture and this process of cultural change in Australia, there was a prime opportunity to design and implement a culturally specific community based PA intervention, which would encourage increased participation in the Karen community. Based on an overall understanding of the cultural variables of sport and PA participation, and participant input, this study was developed as a family PA program with modules of PA sessions, health education, and socialisation. The structure of the program was therefore built on the following components: the value of collectivism and family in the Karen identity and Karen concepts of sport and PA, the barrier of time due to caregiving responsibilities, participant requests to learn about and try new activities in Australia, and a desire for the researcher, CL and participants to work together to create a tangible outcome which addressed important concerns in the local Karen community.

The program was designed as a pilot intervention in order to investigate whether the approach was appropriate for the cultural group, and if the facility, the instructors, and the facilitators could deliver a suitable and sustainable model of engagement in sport and PA for Karen refugees.

Due to budget restraints following the first two studies of the PhD, it was essential that the intervention received external funding for implementation. Thus, an application was submitted for a local community grant (Laverton and Laverton North) offered by South Western Melbourne Medicare Local (SWMML), which was successful and thus awarded \$13,900AUD in late May, 2014. Funding conditions stipulated that the program was required to be implemented in the Laverton area, targeting local Laverton and Laverton North residents. This was not an issue for this study however, as the majority of Karen resided in these suburbs anyway.

The aims of the intervention were threefold: 1) encourage participation in PA through an appropriate medium, 2) provide an opportunity for families to learn to be active together in a meaningful way, and, 3) showcase several new activities for Karen families to try for the first time. These aims directly related to the Karen specific needs that were reflected in Studies 1 and 2: 1) sport and PA in Australia was foreign and different to the Karen version, 2) participants value families being together and collectivism, even in sport and PA, and, 3) wanting to try new things in Australia, not knowing what was available to them. The intervention was intended to arouse interest and engage participants in a fun and comfortable environment. Previous CD work with Karen refugees suggested that the key to sustainable change with these groups was in initially engaging them from the start, then using this engagement to build a sustainable outcome. Thus, the intervention aimed to build engagement, rather than develop a program which would lead to long-term behaviour change (which would require much more time

and resources than available within a limited PhD project). Essentially, the idea was to foster enjoyment in activities that were perceived as being inaccessible, unfamiliar, or frightening. Once participants gained confidence and became more comfortable with the new activities, facilitators (together with the group) would use this momentum to build a sustainable long-term option for behaviour change. Particular activities used within this intervention (such as golf) were never envisioned as being a long-term PA option for Karen refugees, rather, they were utilised as engagement tools to offer participants a chance to try an activity they requested to try, and create a conscious link between enjoyment and PA. The intention was to create as many avenues for post-intervention sustainability by collaborating with the Council and other service providers, because a truly sustainable model could not be implemented within the time and resource restrictions of the PhD.

6.2 METHODS

There are three key elements of the intervention methods which relate to the aims mentioned above: 1) working with the community leaders and members to design a culturally appropriate program, 2) a robust understanding of Karen values regarding health, community, family, sport and PA to tailor a meaningful and valuable program, and, 3) developing partnerships with collaborators to provide a range of activities which have sustainable possibilities post-intervention.

6.2.1 Community participation

Having an academic and industry background in CD and community based programs, it was important for me that the intervention was strongly based around a community participatory framework. The practical application and theoretical implications of the term 'participation' has been debated hotly amongst CD researchers and practitioners (Mikkelsen, 2005). However, the broad consensus is that participatory strategies are contextual in nature and "...there is no one a priori" (Mikkelsen, 2005, p. 69). In the context of the intervention, community participation involved: providing members of the Karen community an opportunity to have input and make collective decisions on various aspects of the intervention (e.g., location, time, activities), informing and updating the community of amendments to the progress of the intervention (via Ida), adopting a flexible approach to incorporate changing community needs or desires promptly, and maintaining dialogue and cooperative exchange throughout the entire life cycle of the project. These methods ensured that the intervention was guided by culturally appropriate principles, and decisions were made based on information provided by the Karen CLs and members.

6.2.2 Understanding Karen values

Successfully developing, implementing and reaping any beneficial outcomes of the intervention relied on a strong understanding of Karen values relating to sport and PA participation. This was attained through various means; prior knowledge and experiences of Karen culture, informal conversations and reflections with the

leaders and community members, and most importantly, the results from Studies 1 and 2 (Chapters 4 and 5). This understanding allowed us to develop an intervention that was meaningful for the Karen community, incorporating many of the values that were important to them.

6.2.3 Partnerships

This intervention required the collaborative partnerships of various stakeholders for the successful incorporation of community desires of a variety of different activities, and particularly for sustainability. Establishing partnerships with organisations such as the Council, local sporting clubs and key members of the local community provided a wide network to call upon. Managing these relationships effectively and ensuring that each party's agenda was addressed, increased the likelihood of continued engagement and sustainable outcomes.

Working with Ida and the community members to design the intervention was one of, if not the most, important components of the intervention. During the August, 2013 interviews and at the finalisation of two December, 2013 interviews (these were not audio recorded as conversation naturally began on the topic after the recording stopped, however manually written notes were taken) for Study 2, the logistics of the intervention were discussed. For example, appropriate days and times, and the types of activities and education topics. Once the logistics of the program were arranged, a focus group with 3 prominent CLs and elders who were not participants (local pastors and community elders) was conducted. This was important not only to obtain their input and feedback on the provisional

program, but culturally it was important to have their approval and support. After making appropriate changes to incorporate the feedback from the community elders, the final plans were discussed and confirmed with the CL (Ida Bright). Upon confirmation, roles for the organisation and implementation of the intervention were agreed upon between the CL and the researcher. The researcher was responsible for the logistics of the program, for example organising community room bookings, instructor bookings, purchasing equipment and developing program material such as flyers and consent forms. The CL was responsible for community engagement and linking with the Karen families, translating various written material, networking, distributing flyers and updating the registration form.

6.2.4 Participants

6.2.4.1 Number of Participants

Initially, it was agreed that the maximum number of participants would be 30. Many facilitators, for example the gymnastics facilitators, advised that numbers of 25 – 30 participants were ideal for delivering a structured and smooth session. Similar interventions aiming to increase PA participation in culturally diverse communities (e.g., Albright et al., 2005; Borschmann et al., 2010) often had larger numbers of participants (e.g., 75-100). However, this was a specific pilot intervention for a community in a particular local area, whereby the important factor was to make the facility as accessible as possible to the community. Therefore, it would have been difficult to recruit this many participants in a small local area close to the facility. The facility itself, the Laverton Community Hub

(LCH), is a conveniently located facility that was specifically chosen by the Karen community as the location of the intervention. The space was optimal for approximately 35 participants who would be engaging in various types of physical activities, running around or accommodating play equipment, such as balance beams, with enough space to allow for free and safe movements. In total, there were 36 participants registered in the intervention, and two who were not registered, but took part most weeks for fun. There were 17 different family units, with members of each family consisting of between one to 5 individuals, who participated in the intervention. Of the total number of registered participants, 24 were female and 12 were male.

6.2.4.2 Eligibility and Recruitment

Apart from age, there were no other eligibility criteria for participation in the intervention. To participate in the intervention, participants needed to be no younger than preschool age (4-5 years old). For recruitment, there was no upper age restriction mentioned, as this may have possibly detracted some older adults from attending and being involved in a whole-family initiative. This was also important as the elders recognised that older Karen individuals needed support regarding social isolation and participation in PA for their social health. Due to the specifics of the intervention outlined in both the funding contract and the ethics approval, it was not possible to facilitate specific activities for older adults. However, they were encouraged to attend to either be involved socially, or partake in any activities they felt comfortable doing. In the instance that any older individuals (e.g., over 65 years old) registered or expressed concern in

participating, a case-by-case decision would be made on activity participation appropriateness. Participants were recruited through the same means as Studies 1 and 2. Albeit the most appropriate method of recruitment for the Karen is word of mouth, a translated flyer was an important and essential product for the funding body and the local Council. Thus, a Karen language flyer was developed for circulation through local service provider networks (e.g., SWMML, Hobsons Bay City Council) and for display at the Hub (Appendix J). The CL circulated 50 flyers to her local Karen community group, primarily through the local church and individuals she personally knew who she thought may have been interested. Both the CL and the researcher each had a copy of the registration form, which they updated together via regular phone conversations. After one week of recruitment, 31 participants had registered prior to the start of the intervention, with 5 participants registering on the first session.

6.2.5 Measurements

The aim of encouraging participation through the intervention was measured by analysing participation and adherence rates.

6.2.5.1 Physical measurements for educational awareness

Measurements of weight, height, hip/waist circumference, and time performing 'the plank' (balancing position performed by resting weight on the tips of the toes and forearms) were taken on the first session and the 6-month follow up. Weight was measured in kilograms using a 150kg. maximum rated home use scale.

Height was measured in centimetres using a stadiometer. Hip and waist circumference were measured in centimetres using a tap measure wrapped around each participant's waist and widest part of the hips. Height and weight were used to calculate a Body Mass Index (BMI) figure, and hip and waist measurements were used to calculate waist-to-hip ratios (WHR). Four adults did not have their time recorded for the plank exercise because they were either absent during measurement or did not wish to perform the activity. BMI measurements were utilised as an informative tool to aid education on weight gain and type II diabetes. Discussions with local health agencies, GP's treating Karen families and the participants themselves suggested that weight gain and type II diabetes were important health considerations for the Karen. Thus, evaluating changes in these measurements was not a specific outcome of the intervention, but rather served primarily as a learning tool and discussion point. These practices are commonplace within the Australian health care system and it is important that participants are aware of, and feel comfortable, with these procedures. Although measures such as BMI are not consistent with the non-Western Karen concept of health and wellbeing, the acculturation process nevertheless places participants within an environment of cultural exchange. Thus, participants will at some point confront BMI measurements within the Australian health care system, particularly considering their heightened risk of type II diabetes and obesity. These measurements therefore complemented the educational modules throughout the intervention, particularly discussions on obesity and type II diabetes risk factors (e.g., relationship between type II diabetes and waist measurements). Changes in any of these health

measurements are not the purpose of this project and were only utilised as educational tools and reference points of engagement with the Karen families in order to familiarise them with these common practices and thus make them more comfortable in perhaps unfamiliar settings. The plank activity was also an educational component which gave the participants an opportunity to learn how to perform an exercise that they could easily do at home to build core muscle strength. Moreover, the plank exercise was an appropriate measure of physical capability for both unskilled adults and young children to perform together at the same time, and be taught effectively to perform by themselves at home. Other more 'common' activities such as push-ups, would have been inappropriate as they are difficult for beginners and children to perform safely and correctly, and the risk of injury if performed incorrectly at home would be greater than with performing the plank. Participants were encouraged to practice this exercise to see if they can hold the position for a longer time at the 6-month follow up. During the first session, four facilitators (including the CL) assisted in taking measurements for participants. During the 6-month follow up, participants were encouraged to take some of their own measurements and record them (weight, hip/waist circumference) to provide them with an understanding of how to monitor these indicators independently.

6.2.5.2 Weekly sticky board evaluations

Each session, participants were asked to complete a short evaluation of the day, which was completed by indicating (marking a tick or cross) their responses to translated questions relating to the various aspects of the session on a sticky

wall. The weekly sticky board evaluations were intended to be utilised as a quick assessment of what participants enjoyed and did not enjoy about the new activities or information they experienced each week. However, there was an issue in the translation of some of the questions, which was not picked up until week 4. Initially, the CL intended to translate the English questions into Karen; however, she did not have time to do so before the start of the intervention due to personal reasons. The questions were therefore sent to a professional translating organisation, and once received back; the font was enlarged and laminated. The translations were completed through the same organisation that translated all previous documentation which was cross-referenced with the CLs and always deemed to be correctly translated. Thus, the translated questions were not cross referenced with the CL, and it was only in week 4 that the researcher questioned the translation with the CL. The researcher observed that many participants were ticking 'no' to the question 'would you do this activity again?'; even though the perception was that participants thoroughly enjoyed the activity. The CL advised that some of the Karen questions had been mixed up and this question actually translated to 'do you have any more comments about today?' She also mentioned that some of the words had missing sounds (Karen written language utilises symbols to represent sounds) and reading them did not make sense. She then translated all of the questions correctly, and participants responded to the accurate questions in week 5.

6.2.5.3 *Ethnographic accounts*

Each week the researcher updated a semi-ethnographic account of the various aspects of a session in a journal. The journal is an amalgamation of events, discussions (informal and formal), observations, and reflections based on the sessions each week. Through this documentation, there is an overall sense that all of the participants enjoyed the various sessions, with some variations for certain age groups and participants. During each session, the primary form of data collection was observation and semi-ethnographic forms of reflection, which were all documented in a weekly journal (a sample of which is attached as Appendix L). The outcomes of each session were also often reflected on through conversations with the CL, the research team and some of the participants during pack up. These discussions also revolved around any feedback received and how it can be incorporated in following sessions. Brief interviews were also conducted with willing instructors either in person, on the phone, or via email at the conclusion of the intervention. These discussions were also documented in the weekly journal.

6.2.5.4 *Final evaluation questionnaires*

Written evaluation questionnaires (provided in the Karen language for adults and English for children) (Appendix J) were completed by participants on the last session of the intervention (8 weeks). The questionnaire was specifically created for this intervention and was created to be particularly simple, general, and broad. It was created so that participants could easily provide basic feedback on their enjoyment, expectations, and overall thoughts on several aspects of the

intervention through basic methods of evaluation (e.g. rating scales) due to the spoken rather than written nature of the Karen culture.

6.2.5.5 *Six-month follow up*

The focus of the follow up session was primarily to re-visit opinions regarding the program and participant sport and PA behaviours post program. This was achieved through conducting two focus group informal interviews, one with the adults, and one with the children. Splitting up adults and children to conduct the interviews provided an opportunity to obtain honest opinions of children without their parents being present. The session was structured in three separate segments. For the first 40min, the adults were measured and interviewed whilst the children partook in a PA session in another room. Then adults and children swapped rooms, and children were measured and interviewed for 20min. The last component was based on free choice to partake in either socialising with healthy snacks, or participating in sports or PA (utilising the equipment from the original program). All participants were asked to record their own measurements by weighing themselves and measuring their waist and hips using a tape measure. They were instructed that they could assist each other, particularly older children assisting younger children, and were provided with a brief demonstration on the correct way of weighing themselves (e.g., taking shoes off, operating the scales) and locating their waist and hips. Whilst each group was being interviewed in one room, the other group was in another room (same room utilised for the program) with an activity instructor who facilitated various PA activities (such as playing dodgeball, aerobics and hula hoop races). Children did

not wish to partake in the plank activity, and were therefore not required to do so. Some of the adult participants requested to do the activity so that they could see if their times had changed from the start of the program.

Group interviews were conducted in the same manner as the previous studies and group interviews, with the researcher asking a question and the CL interpreting it in the Karen language. Participants took turns to speak so that the interpreter could translate each message one by one. Both group interviews were audio recorded and the English sections transcribed verbatim. A semi-structured interview schedule (Appendix R). This schedule was created to be particularly open and flexible as the interview was intended to be an informal discussion which was driven by the participants. All participants were encouraged to discuss any matters that were important to them. The researcher only prompted participants to discuss the program (e.g., what participants enjoyed or did not enjoy, if participants could remember anything they had learnt) based on the schedule if participants were had little to discuss.

6.2.6 Materials

Participants were provided with translated Information to Participants forms (Appendix M) during the recruitment and registration phase. On the first session, participants were asked to complete a translated consent form (Appendix N), a Physical Activity Readiness Questionnaire (Appendix O) and photo release documents. Also on the first session, facilitators noted participant details and measurements such as weight and height, on measurement record sheets (Appendix P).

The majority of the funding for the intervention was used to purchase equipment for the PA sessions. Equipment was made up of play based game and activity materials such as various sized balls, soccer nets, volleyball nets, hula hoops, tug of war rope, balance beams, skipping ropes, ten pin bowling sets, grip ball and sack racing bags. Equipment purchases were based on popular play based activities that can be played by individuals of various ages and skill levels, in a fun and safe way. Soccer and volleyball nets and balls were purchased specifically based on community requests. Storage kits were also purchased, so that the program equipment can be stored in an organised manner for long-term use and storage at the LCH (all program equipment was donated to the Hub post program completion except for the volleyball net and 3 balls, which was donated to the Karen community and stored at the Westgate Baptist Church). Other equipment included graduation certificates for all participants and 17 'stay active' packs each consisting of a backpack, one skipping rope, a 25cm ball, a Frisbee, a small bean bag, a water bottle and a catch tail ball (small baseball with a long colourful ribbon attached). These packs were presented to each participating family unit on the last session, at the graduation event. Other materials included healthy snacks each week consisting primarily of fruit, vegetables, dips and nuts, measuring equipment including scales, measuring tape, stopwatches and a stadiometer (height measurement tool), and demonstrating tools requested by educators, such as a whiteboard and a projector.

6.2.7 Data analysis

A weekly schedule will be maintained to keep track of participation rates, and these will be analysed at the end of the intervention by deducing adherence rates based on participation. Ethnographic accounts and interviews with service providers and facilitators will be analysed by utilising a somewhat similar approach to Studies 1 and 2 in that the researcher interprets weekly explorative notes and categorises major themes and topics into meaningful outcomes in relation to the aims of the intervention. The evaluation survey will be analysed by descriptive means and will include frequencies of reported values.

6.2.8 Designing the intervention

A schedule of activities was initially planned well in advance, with significant community input and accommodation to instructor needs. For example, it was envisioned that activities would alter each week to keep participants engaged and interested. However, the karate instructors requested to have two consecutive week slots as it would allow participants to remember and draw on skills in the first session. Due to the adaptable nature of the intervention, it was agreed (amongst the research team and Ida) that three to four weeks of sessions should be planned, with the remainder of the intervention schedule being flexible and adaptable to emerging topics and requests from participants. Therefore, the first three sessions were confirmed to include: two sessions of karate with general introductory and housekeeping information and education on health benefits of regular physical activity, and one play based session with general

introductory nutritional information. For the remaining weeks, there was a 'semi-schedule', which was open to flexibility and changes. For example, there was a general agreement on the types of activities (such as golf, gymnastics, soccer) and the topics of discussion (such as sugary foods, type II diabetes), however weeks and topics were not concrete and were agreed upon in the week or two prior to the particular session, based on community response. All instructors and educators were advised about this and were comfortable with the necessity to be flexible and accommodating. Activities were moved and rescheduled once during the intervention, according to community desires. In week 5, the CL advised that the participants (and some of the wider community who had been discussing the intervention with participants) wanted to have a 'sports game day' in a local park. The community wanted to use the soccer and volleyball kits to set up in the park for casual games. It was decided that the activity in week 7 would therefore be replaced with a sports game day in a local reserve close to the LCH (A.B Shaw Reserve, 2.4km from the Hub). Hobsons Bay City Council was contacted to discuss the use of the reserve and any procedural issues that needed to be considered. A large open junior cricket pitch ground was used for the games day in the park activity.

The first session was the most substantial in the intervention. Participants needed to navigate and become comfortable with the new facility, sign consent and photo release forms, be measured, be introduced to the schedule of each session and participate in the activities of the session. The familiarisation of the facility, the schedule, and getting to know one another was an important yet time

consuming procedure. For sustainability, it was vital for the participants to get to know the researchers and facilitators, and most importantly, become comfortable with the Hub itself, which was a new space for all of the participants.

6.2.8.1 *Physical activity sessions*

Activities conducted prior to the start of the intervention included: building a relationship with instructors and educators (karate, gymnastics, golf, VU student assistants, dietician, researcher) and stakeholders (funding body, Local Council, local community), scheduling activities and booking instructors and educators, preparing equipment and organising storage (e.g., pumping up balls and preparing stay active packs) and creating the various materials used for the sessions such as laminating sticky wall questions and graduation certificates. In the weeks leading up to the first session, interested participants were asked to read the information to participants involved in research form (Appendix M) and register their details with either the CL or researcher. After obtaining registration numbers, instructors and educators were advised of anticipated numbers of participants, and appropriate numbers of materials were prepared for the first session. The different PA sessions included: karate, golf, gymnastics, soccer and volleyball, and play based (games). The activities were specifically varied because the community had requested to try different activities. Table 6.3 outlines the rationalisation of the various activities that were chosen for the intervention.

Table 6.1 Activity rationalisation

Activity	Incentive	Other Contributing Factors
<i>Karate</i>	Example of new activity agreed upon during focus groups	Karate group already operating from the LCH
<i>Golf Clinic</i>	Discussed after interview and raised by participant in Study 1 (Kenny)	Local clubs keen to engage groups like Karen and adopt a more inclusive approach
<i>Gymnastics</i>	Discussions with Gymnastics Victoria (GV) and Gymnastics Australia (GA) revealed they are increasingly focusing on inclusive approaches and initiatives targeting CALD communities	An intervention participating mentioned that gymnastics was a sport that ‘Aussie children’ were involved in during Study 1 interviews
<i>Soccer</i>	Community members specifically requested soccer	One of the most popular and common sports in Karen communities (particularly for men). Soccer is familiar and comfortable.
<i>Volleyball</i>	Community members specifically requested volleyball	One of the most popular and common sports in Karen communities (particularly for women). Volleyball is familiar and comfortable.
<i>Play Based</i>	Specifically addresses key issue of time barrier due to child minding and caregiving roles	Opportunity for Karen participants to learn new games and activities to be played with the whole family

6.2.8.2 *Educational and discussion modules*

The educational and discussion modules of the intervention were explicitly requested by the community either through informal conversations or prior focus group sessions during Study 2. There was a great sense of importance in the Karen community for learning about health, PA and nutrition in Australia, whenever the intervention was discussed. Because many of the participants were children or adults who never had formal education on these topics, the material

was at a basic and introductory level. All major topics of discussion were noted in the weekly journal and are outlined in Table 6.4. There were three educators running the discussion modules, the researcher, a VU research fellow researching type II diabetes, and a dietician. The dietician presented four out of 8 sessions, whilst the researcher delivered two, and the VU research fellow delivered one. The researcher met with both educators prior to their presentations to discuss their presentation content, appropriate methods of delivery and to highlight several Karen cultural issues that needed to be considered. These highlighted points included: a focus on verbal rather than written communication, relatively new arrivals in Australia with perhaps very little knowledge of certain concepts or processes, Karen language is non-technical, high value for family and children's wellbeing, and, incorporating open discussions as much as possible. Most importantly, both facilitators were asked to be informal and casual in their delivery, with a strong focus on group discussion and adaptability to participant requests. This was especially significant for the dietician in particular.

Table 6.2 Weekly educational and discussion topics

Week	Major Points of Discussion
1	Housekeeping, what is PA, what types of PA do we do, what types of sport do we do?
2	What is health, how do sport and PA contribute to health?
3	Nutritional guidelines in Australia, what is healthy food?
4	What is type II diabetes, what are the risks of developing type II diabetes, practical demonstration using participant measurements of BMI and WHR
5	Nutrition and type II diabetes, sugary foods, salt and packaged food
6	Cholesterol, LDL, HDL, blood pressure, fats in the diet
7	Sports game day in the park – no discussion
8	High blood pressure, cholesterol, salt, healthy foods

6.3 RESULTS

6.3.1 General

There were 19 children (17 years old and younger) with an average age of 9.2 years old, and 17 adults (18 years old and older) with an average age of 34. All participants were Karen refugees, who had been in Australia for various lengths of time ranging from 4 months through to being born in Australia. All but eight participants were from the Laverton area, and 7 of the adult participants were involved in Study 2, with one of those being involved in both Studies 1 and 2. Most of the participants attend the same church located in the neighbouring suburb of Yarraville. All adults except for two had little to no English language comprehension, whilst many children were comprehensive or fluent in English. Adults and children were all fluent in speaking the Karen language, however only a few of the children could read the Karen language, whilst all adults were literate in Karen.

A description of the average measurements of participants taken on the first session of the intervention and at the 6 month follow up, are outlined in Table 6.1.

Table 6.3 Average participant measurements

Week 1				
	Children		Adults	
	Males	Females	Males	Females
Height	1.27m (n=8)	1.33m (n=11)	1.63m (n=4)	1.53m (n=13)
Weight	33kg (n=8)	36.5 (n=11)	73.1kg (n=4)	60.2kg (n=13)
BMI	N/A	N/A	27.4 (n=4)	25.6 (n=13)
WHR	N/A	N/A	0.88 (n=4)	0.85 (n=12)
Plank	102 seconds (n=4)	106 seconds (n=6)	84 seconds (n=3)	61 seconds (n=10)
6 Month Follow Up				
	Children		Adults	
	Males	Females	Males	Females
Height	1.24m (n=7)	1.34m (n=11)	1.63m (n=4)	1.53m (n=13)
Weight	32kg (n=6)	42kg (n=9)	72.4kg (n=3)	61.3kg (n=10)
BMI	N/A	N/A	26.8 (n=3)	26.5 (n=10)
WHR	N/A	N/A	0.95 (n=3)	0.86 (n=10)
Plank	N/A	N/A	35 seconds (n=1)	40 seconds (n=8)

The WHO's international classification for BMI scores categorise individuals into normal and at-risk ranges which relate to their level of obesity and risks of

developing cardiovascular diseases and type II diabetes. The ranges are: <18.5 Underweight, 18.5 – 24.9 Normal, >25 Overweight, >30 Obese (30-34.9 Obese class I, 35-39.9 Obese class II, >40 Obese class III) (World Health Organization, 2006). Recently, there has been growing discussion on the need to develop different BMI cut-off points for different ethnic groups, and Asian groups in particular. In an effort to consolidate different attempts to interpret BMI cut-off points for Asian groups, the WHO produced an Expert Consultation paper which concluded that there was a substantial proportion of Asian people with high risks of cardiovascular disease and type II diabetes whose BMI's were lower than the international cut-off point for overweight (25). Nevertheless, the Consultation observed that risk in this group varied considerably between different Asian populations and ranged from 22 to 25, and therefore concluded that the current international classifications be retained. (World Health Organization Expert Consultation, 2004). Both periods of measurement (week 1 and 6-month follow up) for adult participants show they have an average BMI score, which is categorised as being 'overweight'. The lowest BMI score for adults on the week 1 measurement was 19 whilst the highest was 33.2. For the 6-month follow up measurements, the lowest BMI score was 19 and the highest was 34.6. Children's height, weight, and waist measurements were only gathered for education and awareness purposes. The broad range of children's ages in this program would make it difficult to report accurate average BMI and WHR scores. Moreover, BMI and WHR scores for young children in particular may be inappropriate due to the variations in cut-off points for various ages and stages of development.

The average WHR measurements for adults in week 1 were within the normal ranges, which according to the World Health Organization, stipulates that cut-off points for men is >0.90 and >0.85 for women (World Health Organization, 2008). However, Huxley et al. (2008) found that for Asian populations, WHR cut-off points were lower than for Caucasians, and concluded that the cut-off points for diabetes for men was 0.90 and for hypertension 0.92, whereas for women they were 0.82 for diabetes and 0.84 for hypertension. In which case, the average WHR for women in week 1 was within the high-risk category for both diabetes and hypertension. At the 6-month follow up, the average waist to hip ratios were greater than the cut-off points for men and women for both diabetes and hypertension. However, participant numbers were slightly smaller in the 6-month follow up measurements than for week 1 (see this Chapter, section 6.3.5.4, Six-month follow up, for more information) which may have affected the average scores.

6.3.2 Weekly synopsis

The average participation rate over 8 weeks was 81.8% attendance (Figure 6.1). The numbers and breakdown of participant characteristics are summarised in Table 6.2.

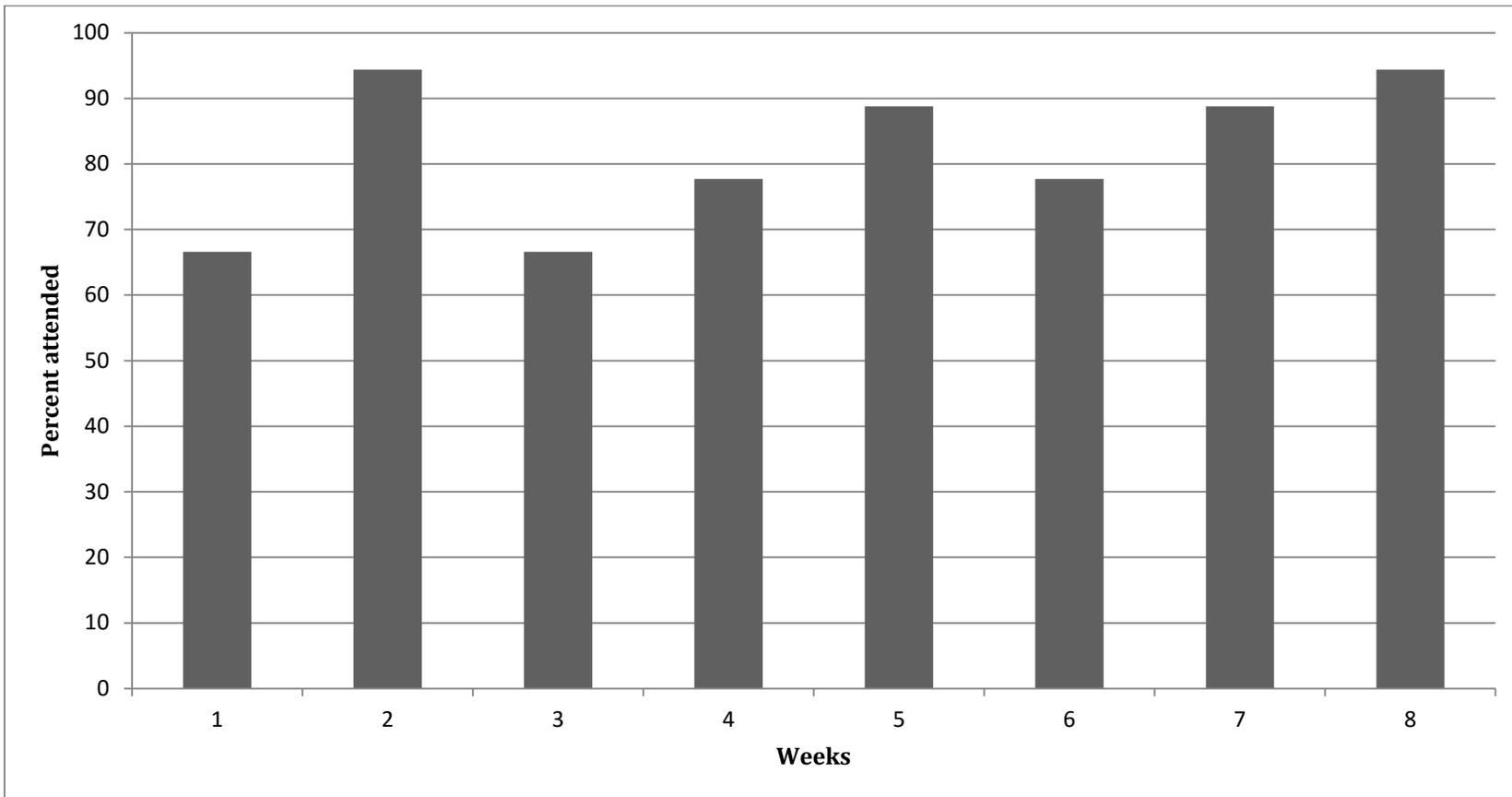


Figure 6.1 Weekly attendance percentages

Table 6.4 Weekly attendance summary

Week	Children	Adults	Total
1	Male: 6 Female: 8 Total: 14	Male: 4 Female: 6 Total: 10	24
2	Male: 7 Female: 11 Total: 18	Male: 3 Female: 13 Total: 16	34
3	Male: 6 Female: 10 Total: 16	Male: 3 Female: 5 Total: 8	24
4	Male: 7 Female: 11 Total: 18	Male: 2 Female: 8 Total: 10	28
5	Male: 8 Female: 11 Total: 19	Male: 3 Female: 10 Total: 13	32
6	Male: 6 Female: 10 Total: 16	Male: 1 Female: 11 Total: 12	28
7	Male: 8 Female: 11 Total: 19	Male: 3 Female: 10 Total: 13	32
8	Male: 8 Female: 11 Total: 19	Male: 3 Female: 12 Total: 15	34

Attendance rates varied over the 8 weeks and did not show any obvious trends, however towards the end of the intervention slightly more participants started attending. In weeks one and three the CL had advised that there was a local Karen social event at the same time as the session. In week one, many of the registered participants did not come due to a local Karen youth event they had prior commitment to. Similarly, in week three there was a local Karen wedding that many participants attended. The CL also informed the researcher that one of the participants had gained employment after week two and was working overtime during the weekends and therefore could not attend the remainder of the sessions. He did, however, come on the last week after work and joined in the graduation day event.

The full schedule (Appendix Q) outlines the finalised activities that were presented each week. The schedule was not regularly updated with educational modules because they were always shifting to reflect participant responses each week. For the first session, all participants were on time, with some arriving 15minutes early. As the weeks progressed, participants gradually started coming later, and towards the end of the intervention, nearly a third of the participants were arriving 15-20minutes late. Although, this usually did not affect their participation in the PA, as participants were asked to be at the Hub 15minutes before the start of the activity, for a brief group discussion on various topics (e.g., health benefits of being active, discussing the sports day etc.).

6.3.3 Physical activity sessions

6.3.3.1 Activities

In many of the activities, participants were often asked to form groups or a team, which was difficult for the CL to communicate, due to high levels of animated noises. Fortunately, the CL changed her delivery style early on in the intervention, and instead of attempting to shout over the top of all of the participants, she spoke to individual people who she chose as group leaders and asked them to assemble a small group. This worked exceptionally well, particularly as the CL would often choose adults for this role, who were naturally inclusive of all participants and formed groups with varied ages and abilities. The play based activities were the most challenging to deliver. For one, each week the activities were different and participants were required learn several new games each session. Secondly, because they were based on games, usually a set of rules or boundaries needed to be verbally communicated rather than visually demonstrated. For activities such as karate, golf, and gymnastics, visual demonstration worked effectively, particularly when participants could observe what other participants were doing and copy the moves. In many of the play based games, for example fruit salad (individuals are assigned a fruit and when called out, must sprint from one end of the room to the other), it was essential for participants to understand the objectives of the game in order to participate accurately.

6.3.3.2 *Instructors*

Instructors were asked to deliver content visually and informally, as much as possible. As mentioned above, this worked well in activities that naturally relied on observing and copying movements (like karate). All instructors usually commenced a session by communicating some type of verbal messages to participants (e.g., which leg to use first, how to perform a correct swing), however towards the end of the session most used visual representations of those messages. As an example, the karate instructors initially were verbally directing participants which arm to use whilst facing the group. However, the instructors soon began to face in the same direction as the group and visually gestured which arm needed to be used to start a sequence. For the play based games, where rules and objectives were communicated, the most effective method was through individual instruction. The CL spoke to some participants individually, who would in turn communicate the objectives of the game to others around them. The play based sessions were facilitated by two third-year physical education students from Victoria University (VU). Albeit the environment was somewhat chaotic because the group consisted of participants of a wide array of ages and very limited verbal communication means, the VU students were incredibly adaptable. Their specific degree training and preparation for large groups of children within a school environment would have assisted them to improvise and cope with the demands of delivering the session. After the first play based game of the intervention, they had quickly learnt to advise the CL of the objective of the game and allow her to pass it on to individuals, rather than directing their messages to the whole group. The best method of teaching

participants correct moves and gestures was again achieved by individual instruction. This was successfully accomplished by all instructors, aside from the golf clinic instructor. All of the other activities had at least three supporting facilitators (including the VU students who had assistance from the researchers and the CL) who were able to join in with the group and show individuals the correct movements. Unfortunately, golf was a specialised technique that could not be taught by the researchers and the CL, and the clinic was a predetermined program usually run for primary school children. To be effective, it greatly relied on the instructor's directives on how to use equipment appropriately and how to achieve correct movements. For example, there was a particular piece of equipment (a plastic golf-like club with a long ribbon attached at the end) that taught the correct movement of a golf swing. The club signalled that a swing was accomplished correctly with a loud crack of the ribbon, and if that crack was not heard, the swing was not performed correctly. The golf instructor had various types of equipment similar to this, which he demonstrated the use of verbally before allowing groups to move around the equipment circuit. Although the CL interpreted the instructor's commands, noise, participants minding their children, playing with the equipment or not paying attention, may have impeded on their comprehension of the directions. Consequently, some participants were aimlessly swinging the club around without any audible cracks. The researcher, the CL and several other participants, then walked between the groups individually, demonstrating how the equipment should be used. If the participants did not speak English, this was achieved by gesturing a clap and nodding of the

head when the crack was heard, and thumbs down and shaking of the head when not heard.

Nevertheless, ethnographic accounts and instructor interviews suggest that the various methods instructors and educators needed to employ in order to deliver culturally appropriate activity sessions demonstrated the complexity in implementing pilot programs such as this. In particular, this intervention emphasised the uniqueness of delivering a whole-family initiative, which many of the instructors and educators found difficult to tailor services for, as it was outside of their usual operations. For the purposes of this PhD and the pilot program itself, there was limited choice in selecting appropriate instructors and educators (e.g., the dietician). However, researchers and service providers who implement similar interventions for the future should be aware of the impact of a tailored culturally specific program on facilitators and instructors involved.

6.3.4 Educational and discussion modules

To begin with, each session began with a short group discussion, an activity session, snacks and breaks, and then the educational and discussion modules. However, after week 2, the CL advised that usually during church and other community events, snacks signalled the conclusion of a meeting or session. Hence, the educational modules were held immediately after the activity session prior to snacks, to ensure that participants did not leave before the modules began. Apart from young children (approximately 8 years and younger), all other participants gathered on the floor in a group and joined in the educational

session. The younger children were usually taken aside to play games so that they were not disruptive to the discussion.

6.3.4.1 Educational material

There were language challenges with interpreting technical information, which was clear in instances when the CL could not interpret specific words (e.g., insulin, carbohydrate) during her Karen recounts. After discussing this with her, she mentioned that if participants asked her for more information she often interpreted it using words which were similar. For example, in interpreting the word insulin she used the Karen word for sugar, or rice to interpret carbohydrate. The discussion on type II diabetes was specifically chosen because the elders had raised it as a concern in their community. It was also highlighted at a funding meeting as a major health concern by a local General Practitioner (GP) in the area who worked extensively with the Karen community.

6.3.4.2 Educators

The dietician was chosen based on recommendations of a colleague at VU who was working in the nutrition department. The dietician was also trained overseas and it was envisioned that because of this, she would be more adaptable to changing needs in delivery methods appropriate for CALD participants. However, the dietician had received community request to cover a topic again (high blood pressure) which was covered 2 weeks prior. After discussing this with her, she expressed her frustration at having to cover a previously covered topic, however

did appreciate the difficulty in understanding complex subjects and needing to cater to the needs of the community.

6.3.5 Evaluation

The pilot intervention was evaluated using a variety of methods. Due to budget and time constraints, this study was a feasibility study; thus, the evaluation was sufficient for those purposes only. However, the variety of methods utilised in the evaluation was adequate to provide a general overview of the program and measurable outcomes. The various evaluative methods have been outlined in detail below.

6.3.5.1 Weekly sticky board evaluations

Overall, the sticky board questions did not provide a great deal of information due to the translation issue to begin with, and little response to written communication in Karen culture. It was envisioned that the particular arrangement of the questions would provide participants with a quick and easy way of obtaining objective data by informing the researcher of their opinions, however many participants did not see value in providing the information. The CL told the researcher that some participants would tell their children to 'write on the wall' on behalf of them, because they thought it was mandatory. A more appropriate and far more meaningful manner of gaining a sense of what participants thought and felt about the intervention came from more ethnographic accounts, observations, and informal participant discussions.

6.3.5.2 *Ethnographic accounts and participant feedback*

Most of the participants enjoyed karate; however the children seemed to enjoy it much more than the adults. The golf clinic was also another activity that children enjoyed a lot more than adults, particularly the younger children. The golf clinic was one of two sessions (gymnastics being the other) where many adults chose not to participate half way through and sat towards the corner of the room.

Gymnastics was enjoyed by both adults and children equally. Most adults chose not to participate in the 'parachute' activity, which involved holding the edges of a big parachute and making shapes. Interestingly, it is perceived that the adults enjoyed the play based sessions more than the children, sourced from speaking directly with parents after the first play based session. However, the general impression was that the sports game day in the park was the activity that adults and children both enjoyed the most.

In relation to the educational modules, most participants were grateful to have an opportunity to learn about health and have experts answer their questions.

However, it was challenging to deliver the content, particularly for the dietician.

The primary researcher had several discussions with the dietician about the delivery method of the content prior to the intervention. The researcher recommended that she does not use technical words such as carbohydrates, and uses visual examples (e.g., visually demonstrating rice was in a serve using real cooked rice, rather than verbally saying 'a cup of cooked rice is a serve') as often as possible. The researcher also suggested that she does not use PowerPoint, and if she must use it, only use it for images or videos. Yet, the dietician's

experience and training in her field may be inadaptable to these types of requests. Despite the researcher's recommendations, she persisted in delivering her content in a lecture-style format. Although the researcher spoke to her about this after her second session, the dietician was unable to change her delivery style. She used PowerPoint slides with large amounts of English text, she rarely used any visual tools (aside from a plate with portion size illustrations and a book) and her content was usually extremely technical (e.g., discussing the different types of cholesterol, dietary guidelines and different types of carbohydrates). The most appropriate method would have been to discuss local and common nutrition and food habits with the participants first, and explore the types of foods the group eats, how much, and what has changed from home to Australia. Instead, the dietician insisted on delivering the Australian nutritional guidelines during the first session as an introduction. Moreover, there was lots of discussion about how much was an appropriate amount of carbohydrates (interpreted as 'rice') to eat. Many of the adults were surprised at the amount that was shown to them (by cupping an empty hand to demonstrate a cup's worth). This perhaps was not the best approach, as rice is a staple in the Karen diet, which is usually consumed for breakfast, lunch, and dinner. Suddenly advising participants that they should be eating significantly less than what they are familiar with and normally do, without having an understanding of what their whole diet entails and how individuals respond to certain foods, appeared to be a naïve approach to addressing nutritional issues in this particular group.

6.3.5.3 *Final evaluation questionnaires*

There were 28 respondents to the final evaluation which was completed on the last day of the intervention; 15 adults and 13 children. It was a requirement that the evaluation questionnaire was created and translated in order to apply for ethics approval for this study, prior to its implementation. Unfortunately, because of this, the questionnaire could not be specific about any activities delivered for the intervention. At the time of submitting the ethics application prior to commencing the study, these details were not confirmed because of the evolving nature of the intervention. Moreover, again because of the written method of the questionnaire, it was not entirely appropriate for all of the participants. Some of the questions were not answered as they were intended. For instance, one question asked participants to rank aspects of the intervention in order of preference. Only 10 participants did so (6 adults and 4 children), with all others only indicating one response. Nevertheless, the questionnaire did provide some useful insight into participant experiences of the intervention, particularly in the open questions.

In rating how much participants enjoyed the intervention, 68% said they 'really enjoyed it' and 32% said they 'enjoyed it'. Participants mostly felt happy at the conclusion of the 8 week intervention (93%). The part of the program that respondents enjoyed the most was the activities followed by the educational component, and then the social aspects. Figure 6.2 presents the responses to what participants thought were the best things about being involved in the

intervention, of which having fun with others in the community was the top response.

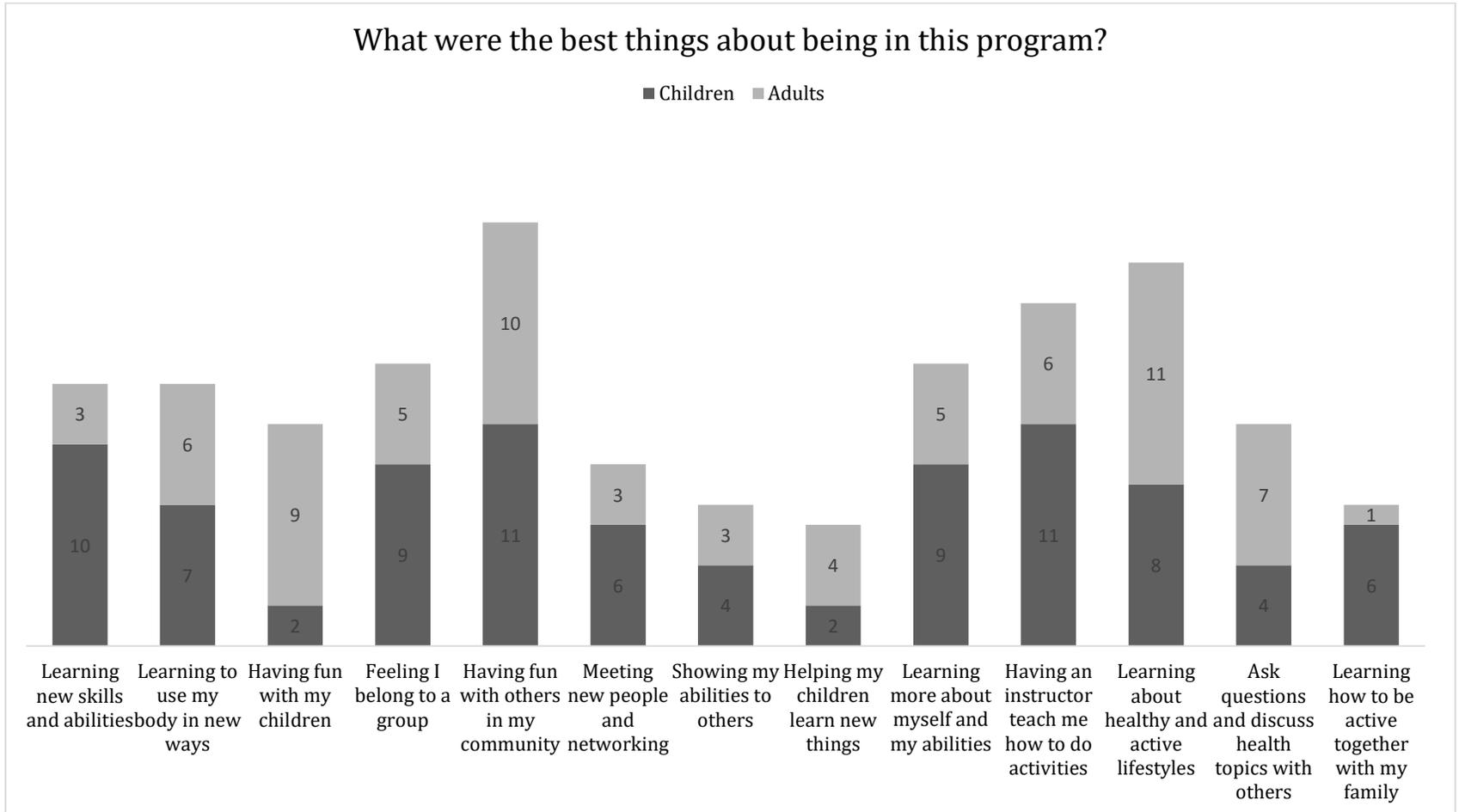


Figure 6.2 Reponses to the best aspects of the intervention

According to 75% of respondents, the program did meet their expectations, with 7% saying that it delivered more than expected. Only one respondent (a 10 year old child) said they did not like 'the lectures', whilst all other respondents said there was nothing in the program they did not like. Almost 95% of the respondents said they would like to be involved in a similar program in the future, with some participants writing they 'loved this program' and they 'wish to have another opportunity like this in the future'.

6.3.5.4 *Six-month follow up*

The 6-month follow up session was held 26 weeks post completion at the LCH in mid-April 2014. The session was attended by the researcher, the CL and a total of 29 participants. Participant measurement results are displayed in Table 6.1. All of the adults measured themselves and took note of their data on their record sheets (from Week 1 of the program) without difficulty. However, children required more assistance, thus older children and the researcher helped to take their measurements and note them on their record sheets. Of the 14 adults who were measured at both week 1 and at the 6-month follow up, 9 had gained weight, with 6 of those increasing their BMI scores from a healthy range (18.5 – 24.9) to an overweight or obese range. Four participants had lost weight, with one of those participants decreasing their BMI score from an overweight range (25.6) to a healthy range (24.3), whilst one participant had the same weight and BMI score for both measurement periods. For the participants who had gained weight, the amount varied from 1.3kg to 8kg, and for those who lost weight, amounts varied from 800g to 1.5kg.

The results of the group interviews suggested that all participants valued the program, particularly for its focus on exercise and involvement of their whole family. However, the majority of adults were less physically active after the program than they were before it, with only one participant in the group stating that she was more physically active by walking regularly. In discussing this, some participants said that the weather had been too cold after the program; others said they got jobs and no longer needed to cycle to the English classes or walk their children to school as often. When asked what they could remember doing and learning in the program, both adults and children could remember and recount the sport and physical activities. No participant discussed the educational material. The most discussed activity was karate, particularly with the children. In discussing if participants disliked any aspects of the program, one adult participant stated, “No. This is the first time in our whole community that we have ever had a program for exercise, that someone organised for us, so, it’s really good for us” (Female). None of the participants had used any of the equipment that was donated to the Hub to participate in PA; however, they did use the volleyball net regularly. The volleyball net was stored at the Westgate Baptist Church (the majority of Karen in the Hobsons Bay area were members of this church) where it was used freely on a loan basis by the whole community. Adults and children both expressed their gratitude for the donation and mentioned that it was ‘used all the time’. After a long group discussion with the adult participants on how the volleyball nets were used, the CL said, “Oh we’re just talking, I dunno, we prefer to just, call each other and I dunno, set up somewhere [the volleyball net] we just prefer that.” The CL managed the use of the net as she was a very

active and well-known member of the community and knew all of the Karen families. Thus, with ease and comfort she was able to get in touch with the families all to organise pick up, drop off times, and track the whereabouts of the equipment.

After the conclusion of both interviews, the CL had a discussion with the researcher in relation to the volleyball nets. She mentioned that her community had never had something this important donated to them, because volleyball was loved by everyone in the community. She continued to say that it provided an opportunity for the adults and the older people to teach the youth about the Karen culture and 'how we played back home'. The CL stressed that the youth groups used the equipment a considerable amount.

6.4 DISCUSSION

The intervention was a momentous outcome for the CL and the participants, particularly those who were involved in Studies 1 and 2. For the CL and those participants who provided input into the intervention through conversation, interviews, or feedback, the intervention itself was a tangible outcome that was built from their own voices on culture, values, beliefs and overall life experiences. This became evident from the first session, as many participants announced their appreciation of the researchers 'doing something good for the Karen community' and 'putting all of this on for them to enjoy'. Moreover, the intervention highlighted the importance of implementing culturally specific pilot programs in order to evaluate the most appropriate and effective methods of delivering and sustaining program outcomes. This not only includes suitable approaches for participants,

but also instructors, educators, and other stakeholders such as the Local Council representatives of this program.

From a practical perspective, the program was successful in providing an opportunity for participants to try new activities and learn about various health related topics in a valuable and meaningful way. From a more foundational level, the program achieved more than was intended, and expected. The participants eventually created a strong sense of ownership over the Hub and the notion of spending time together in an active way. As the program progressed, participants were more comfortable in their environment, and more confident in their understanding of the purpose of the program. Rather than gathering in a group and waiting for facilitators to instruct them, the participants started going into the storeroom to assist with setting up or play with the equipment, they laid out the foam mats, they brought food and made tea and coffees, they socialised before, during, and after the activities. This was a stark contrast from individuals who had never set foot in the Hub before, with some who were not even aware of its existence.

According to the 6 month follow up group interviews, participants felt that they were less active 6 months after the intervention than they were before it, however they believed that this may be due to weather conditions (the intervention concluded towards the start of an unusually hot summer), or many participants gaining employment over that time period. This is consistent with the literature suggesting that weather is a strong correlate of PA (e.g., Belza et al., 2004;

Caperchione et al., 2011; Eyler, Matson-Koffman, et al., 2002; Taylor et al., 2008). Being employed also affects PA participation particularly regarding the type of job and hours worked (e.g., He & Baker, 2005; Lee & Im, 2010; Wolin et al., 2006); whereby in some cases blue-collar workers report more OPA than LTPA (Ayala et al., 2011). The ultimate aim of the pilot intervention was not long-term behaviour change, nor changes in weight, or concepts of sport and PA. The initial aim was primarily to develop and employ a culturally specific program that would engage Karen refugee families in an appropriate and effective way. Overall, this appeared to have been successfully achieved. Participation rates remained high throughout the program; in fact, they got higher towards the end of the intervention. Participants became so engaged with the program that they offered suggestions and requests for specific sports or educational activities. Evaluation questionnaires, and the 6-month follow up interviews, suggested that the intervention was successful in providing types of activities that were fun and suitable for all members of the family. This was a particularly important outcome, as it specifically relates to the requests that the Karen community elders and some Study 2 participants had made for the program. Furthermore, albeit BMI and WHR scores were only gathered for educational purposes, the average scores for adults did suggest that some Karen may be at higher risk for various health concerns relating to weight and waist/hip measurements. This further stresses the need for Government agencies and service providers to be aware of these potential health concerns, and apply a stronger commitment to addressing the issue through culturally specific methods.

6.4.1.1 *Activities*

The adults and the children responded differently to the various activities.

Perhaps children enjoyed the golf clinic more than the parents did because the clinic was set up with lots of plastic, brightly coloured equipment. Adults possibly enjoyed gymnastics because it allowed them to explore and test their abilities in an entirely new fashion. Unlike karate, which was also a new activity for them, it involved more than utilising basic skills which were within the usual normal movements one performs (e.g., extending arms into a punch). Gymnastics involved tumbling, balancing, cartwheeling, rolling, crawling, and jumping, which the adults all seemed to enjoy trying to master for the first time. One of the interesting observations of the program was that adults appeared to enjoy the play based activities more than the children did. This may be because children would have already played most of the games in school (e.g., fruit salad), whereas the adults were learning games they had never experienced before. Both adults and children seemed to enjoy playing with each other, especially in team based competitive games like races. However, it was clear that the sports game day in the park was one of the most enjoyed sessions, with many Karen community members who were not participants coming along to be involved. Participants brought food (even though snacks were provided) and they all assisted in setting up by erecting nets, assembling goals, inflating balls and marking play areas with cones. Participants were not placed into teams, they naturally gathered around the sport they wished to play. Interestingly, children (of approximately 13 years old and younger) all chose soccer, whilst the young people and adults chose volleyball. This type of behaviour reflects a strong

engagement and ownership of this particular session by the participants. The session most resembled PA that is familiar in the way it was done at home; games were played according to their own custom rules, terms and methods, in an open and public space, through sharing, connecting and socialising. Research has suggested that PA participation in CALD communities may be negatively impacted by unfamiliarity with mainstream or new activities (Doherty & Taylor, 2007). This finding suggests that an activity that is culturally appropriate and valued can be facilitated and delivered by service providers in a manner which allows individuals to take ownership and partake in ways that are meaningful and familiar to them.

6.4.1.2 Sustainability: Issues and possibilities

Due to the collaborative manner in which the intervention was developed and implemented, there were various sustainable outcomes, which resulted from the program. The researcher attended three of the Council run program sessions; two Zumba sessions and the sports carnival day. The two Zumba sessions had from 5-7 participants, none of whom was involved in the original intervention. The participants were all females, ranging in age from 7 years old through to 20 years old. Out of the expected 30-40 participants for the 'carnival day' organised by the VU students, there were only 15 Karen youth who attended the sports carnival day; 6 males and 9 females of varying ages from approximately 8 years old through to 22 years old. The LCH was very interested in maintaining engagement with the Karen; particularly due to recent health concerns regarding lifestyle diseases with this group within their municipality (information supplied by local

GP's and SWMML). The VU Diploma coordinator was also keen to continue working with the LCH and the Council to deliver similar programs for the future based on the practical and networking advantages it provided to the students. Thus, it was agreed in the debrief meeting that the LCH Council officer and the VU Diploma coordinator would continue to meet and discuss options and plan for future partnerships and collaborations. This would involve exploring options for VU student placements at the LCH which would include students facilitating programs similar to the original intervention, as well as continuing with a regular sports carnival day.

The donated sports equipment located at the LCH also provided an opportunity for continued engagement with the Hub, and PA. The idea was for the equipment to be offered free to the community on a loan basis, similar to the concept of a library (a sign in ledger was created for the LCH to implement), and a toy library in particular. Community members could take the equipment home for the weekend, use it, and return it back to the Hub within the week. Alternatively, they could book a time to use the large room in the Hub and use the equipment there. The equipment was utilised during the intervention every week, and thus it was assumed that participants would feel comfortable with, and find enjoyment in using it. The LCH was within walking distance of some intervention participants' homes, which made access to the Hub possible. However, none of the participants used the equipment post completion of the program, and some said that they did not know they were allowed to use it. This may be due to a variety of reasons, perhaps the group were not aware of how to loan the equipment, or

they may have thought that they needed to pay for the equipment. This perception is synonymous with literature suggesting that CALD communities have difficulty navigating mainstream processes and obtaining required information in order to participate in structured forms of PA (Caperchione et al., 2011; López et al., 2008). Moreover, based on how participants use the volleyball net, in that they 'prefer to just call each other and set up somewhere', utilising the Hub equipment may be seen as too procedural, or that processes to obtain the equipment were time consuming unfamiliar, or required English language skills (Evenson et al., 2002) which participants did not have. The volleyball net is most likely used on a spontaneous basis, whereby using it is achieved through either making a phone call to someone well-known and requesting it, or asking friends who have it and joining in on their game. With the equipment at the Hub, participants were required to either call or visit the Hub within working hours and complete and sign the ledger. Users of the Hub equipment would also need to return the equipment at a certain time, whereas with the volleyball net, it can get passed from one community member to the other, as long as the CL knew the whereabouts of it and who possessed it. Thus, with the aspect of time (as discussed in findings of Study 2, Chapter 5 of this thesis) being a challenging concept for the Karen, and their limited comprehension of the English language, these processes would have been very difficult to overcome for the participants. Research suggests that most programs targeting increased PA participation in CALD communities do not take into account specific cultural needs such as those discussed above, of the target group (Caperchione, Kolt, et al., 2013). Tailoring

programs to be culturally specific would therefore require a deep understanding of such cultural variables which affect PA participation.

Nevertheless, the equipment at the Hub still has many options for sustainability. The Council officer at the Hub could continue to work with the youth leaders and develop a regular program with them that utilises the equipment at the Hub. They could also work together to find a more appropriate method of loaning equipment out to the Karen community, such as giving a volunteer member the same responsibilities as the CL with the volleyball net, who will manage the loan of equipment. The LCH could also work closely with the Karen community to deliver an annual 'Karen Family Fun Day' which would be similar to the graduation day of the intervention. This involved laying out equipment to play with and setting up games (e.g., dodgeball, soccer, hula-hoop races, target practice, obstacle courses), working closely with community groups who could donate their services (e.g., fitness instructors, club coaches such as gymnastics, entertainment such as face painting and food). These options were discussed with the Hub Council officer after the 6-month follow up, and the officer agreed that she would work on developing some of those options and exploring innovative ways of utilising the equipment with the Karen community.

6.5 STRENGTHS AND LIMITATIONS

This study had several strengths. To begin with, the adherence rates showed that the intervention managed to engage a large number of participants and keep them engaged throughout the course of the program. This is a significant outcome as it suggests that applying a culturally specific approach to such

programs can engage potentially isolated or hard to reach Karen refugee groups. The study also successfully implemented a flexible community program, which was driven by the target group who participated in decision-making and logistical processes. This method gave the group a sense of ownership of the program, leading to enjoyment, long-term engagement, and continued momentum for health and active lifestyles post-program. The pilot intervention also highlighted challenges of implementing culturally specific programs within mainstream Western perceptions (e.g. appropriateness of nutritional education modules based on Western concepts of information sharing). This was a positive outcome because it can lead to further consideration and reflection on appropriate methods of engaging CALD communities by altering common Western practices and being flexible in design and delivery approaches.

The study also had a considerable amount of limitations. Language and cultural barriers were the key limitations to this intervention. Relying on the CL to translate and interpret interactions with up to 34 individuals at a time was problematic. Often, when interpreting instructions for an activity, the children (who understood the English message from the instructor) would make noise and get excited, whilst the CL interpreted the message to the adults. Consequently, it was often hard to hear her and pay attention because many adults started discussing it with their children whilst the CL spoke. It was also difficult obtaining feedback from participants through general conversation during and after the sessions, as the CL needed to relay a copious amount of information to and from during each session. During the planning phases of the intervention, the research

team did discuss working with another Karen interpreter. However, the CL insisted that she could handle it on her own and thought that a new person to the already existing and well-known researcher and CL duo would confuse the community and make participants feel shy or reserved. In an ideal situation, it would be most appropriate for the intervention to be facilitated by someone who is fluent in the target group's language. Unfortunately, this was not possible in our case. Still, a little over half of the participants were children, who understood English and were able to assist with overcoming some language barriers. For example, some of the children were chosen to assist with snack preparation. During this time, the researcher conversed with them about what their parents thought about the program, what activities they enjoyed, and what they wanted to learn more about. Moreover, some of the children and young adults acted as interpreters within their activity groups naturally, and often spoke to the instructors on the group's behalf.

This program would also have benefitted from a more robust collection of measures, particularly concerning PA participation behaviours before and after the program. Albeit PA behaviour change was not an aim of the intervention itself, implementing measures to assess PA behaviour patterns would have provided an understanding of how the program affected PA participation. This understanding could in turn inform future programs that do target PA behaviour change over time.

The majority of participants were part of a collective group from the same suburb and church, and most likely knew each other well. This close association between participants may have affected program participation rates. For example, if there was a social occasion, a celebration, or local event that affected one of the participants, it was highly likely that other participants would also be impacted. Thus, at times during the program, several participants did not attend the session because they had a shared commitment. However, this is not necessarily a limitation; it is merely an example of working with the dynamics of the Karen community. Generally, it is difficult to gather a group of Karen who do not know each other, or who are from different areas. Their culture is highly collectivist; if one person wanted to participate in something, that person would feel most comfortable doing so with their well-known and trusted community group. That person's community would also want to participate to support that person and not leave them independent in any situation. Therefore, it may not be culturally appropriate to encourage a big group of Karen who are not familiar with each other to participate in an intervention. Tailoring the program design to suit the culturally specific needs of the community group would assist service providers to promote PA participation within the group in an effective way (Caperchione, Kolt, et al., 2013). To address this, it is necessary to plan the intervention during a time that does not interfere with the group's social events. One way to do this would be to recruit participants well before the logistical confirmation of the intervention, and allow the group to discuss issues like this regularly. This way, the intervention times can be optimally planned and the group can discuss alternatives (such as alternative intervention days or times)

collectively. Unfortunately, this was not possible for this intervention due to tight deadlines to complete the intervention both for the funding body requirements and purposes of timely completion of the PhD. This may also be difficult to do because it would require a lot of time from the researcher, the participants, and the CL. For this study, it was simply not feasible because the CL was extremely busy as it was. However, if the researcher did not have language and cultural barriers, it may be achievable through a deeper immersion into the community group and the participants' lives, even via a more ethnographic approach to the intervention.

6.6 FUTURE RECOMMENDATIONS

Several recommendations for future programs and research evolved from the development, implementation, and evaluation outcomes of this pilot intervention. Albeit these recommendations are offered for potential transferability, even similar programs that are implemented will be unique in their environment, target groups, collaborators and a host of various other factors. It is imperative that program facilitators and researchers apply a specific approach to their needs.

6.6.1 Program recommendations

To begin with, it is important to have a good understanding of the target group's culture, needs, and contexts, before developing and implementing projects similar to this pilot. It is crucial to understand how individuals see and experience the world, especially in relation to how they define and value certain concepts such as health, sport, and PA. In this project, both Study 1 and Study 2 provided

this understanding, and therefore led to the development of a culturally specific pilot program. For researchers and facilitators who are new to the group's culture and who may need to overcome language barriers (as was the case in this intervention), it is important to work with individuals who can be cultural advisors, interpreters, community links, and partners in order to access this information. Providing a culturally specific program ensures that participants gain valuable and significant outcomes for themselves and their families. Thus, participants will be motivated to attend regularly and engage on a meaningful level by asking questions, being comfortable, and maintaining interest for future engagement.

Another recommendation is to create working partnerships and collaborative arrangements. Albeit this is not a new concept, the importance of it must be stressed. Having a wide partnership network when endeavouring to implement a community based program would add to the program's effectiveness, reach, meaningfulness, and sustainability. Program partners not only offer in-kind support (for example, in this intervention, a researcher from VU presented the type II diabetes education module as in-kind support) and resources, but also expertise that the program team may not have (e.g., gymnastics coaches who modified movements to suit varying age and skill levels of participants). However, as evidenced by this pilot program, time should also be dedicated to working with instructors and educators on content and methods of delivery to ensure that they are appropriate and positively received by the target group. This could be achieved by working with individuals who have specific understandings, or experiences, of working with CALD groups. If it is difficult to source these

individuals, the researchers ought to engage with instructors and educators early on in the project and update them regularly on their findings regarding the cultural needs of the group. In doing so, the instructors would also develop a strong understanding of the cultural variants of the particular group, and work with the researchers to tailor their services towards their specific needs.

Community participation was another essential component of this intervention. Adopting a community participatory approach provides decision-making power to the groups facilitators aim to support. Empowering communities to deliver input into the program may also give them a sense of ownership and belonging, which in turn would make the program more effective and significant for the group (as evidenced by participants' response to the games day in the park activity of this intervention). Please see the section titled Employing a Community Development approach in Section 3.1.1.1 for more information on how this study employed a participatory approach. Specifically, in this study, the researchers formed partnerships and working groups, rather than advisory groups, with community members. The approach was based on engagement with community members who would form part of the program team, rather than individuals who would simply advise the facilitators on what to do. The CL was an example of this teamwork as her role was in partnership with the researcher. For example, the structure of the sessions (healthy snacks after the education module rather than before as first implemented) changed after week 2, and it was the CL who insisted on and carried out the changes to the session structure.

Moreover, this pilot intervention was intentionally created to be flexible and evolving due to the context of the particular community group, whereby a more structured and concrete approach would not have been suitable. The Karen community often expressed that they did not know what type of activities they would like to play because they did not know any in Australia. They also indicated that they were unfamiliar with nutrition and Australian sports, which meant that the participants did not know if they would enjoy the activities in the program. Therefore, the program needed to be flexible enough to adapt and change according to their response to the education materials or the activities. This is the reason why some educational material was repeated and delivered upon request. For service providers to achieve this in real-world scenarios, it would be important to commit to flexibility early on in the program. This fosters the idea of evolving the program as it goes along, and this idea needs to be at the heart of all program planning. Unfortunately, as I have experienced in my work as a community development officer, this method of program delivery is often perceived as being improvised and too spontaneous. This goes against the very structured processes of program development and implementation that many organisations stress. However, this type of program development and delivery is not improvised; rather, it requires much more planning and preparation in order to implement effectively. The key to achieving a truly flexible program that is reactive and adaptive to a vast array of community requests is preparation. Facilitators need to be more prepared by developing a 'skeleton' program (e.g., broad and general ideas of the direction of the program) and having multiple sets of finer details, which can slot into the skeleton and fill in the blanks as the

program progresses. This would entail a lot more planning and negotiating as it would require facilitators to confirm multiple sets of 'possibilities' (e.g. a large network of possible instructors and educators and various other activities and approaches that could be utilised if required) which are always ready to implement during the course of the program based on community needs and responses. It is also important to be comfortable and open to the notion of making changes throughout the entire program. This would be effectively achieved by having a large bank of contacts, educators, instructors, assistants, alternate locations and stores to purchase equipment, all of which can be called upon promptly if required. A comfortable and safe space also needs to be created for the participants to feel that they can be open to make requests and suggest changes to suit their needs (e.g., when participants requested to play soccer and volleyball in the park instead of the pre-arranged activity).

6.6.2 Research recommendations

One of the most important research recommendations that eventuated from this pilot program was the need for more thorough evaluations with similar pilot programs. The various methods of evaluation used in this study suggested that some were more effective than others. Thus, a more specific and tailored evaluation approach would be more effective and efficient in similar studies for the future. It was evident that this pilot intervention had a significant impact on individuals and services outside of the participants and research team. For example, the LCH staff developed new programs and services in an attempt to maintain engagement with Karen communities. For the dietician, this particular

program presented a challenge in service delivery which required her to be innovative and attempt to 'think outside the box' regarding her approach and service delivery. Moreover, albeit there were many options for sustainability to arise from this program, there were no measures in place to evaluate whether these would be feasible, or maintained, by both the participants of the program and the facilitators (e.g., VU, HBCC, LCH). Therefore, a more effective and appropriate evaluation strategy would have been to employ the RE-AIM framework (Glasgow, Vogt, & Boles, 1999). This particular framework is designed to assess the significance of public health interventions (Glasgow et al., 1999), and is frequently used to evaluate nutritional and PA interventions (e.g., Caperchione et al., 2015; Estabrooks, Bradshaw, Dzewaltowski, & Smith-Ray, 2008; Van Acker, De Bourdeaudhuij, De Cocker, Klesges, & Cardon, 2011). As outlined by Glasgow et al. (1999), the impact of an intervention is conceptualised as being a function of five dimensions; (i) reach (an individual-level measure of participation), (ii) efficacy (assessment of both positive and negative consequences of the program, and attainment of aims), (iii) adoption (proportion and representativeness of settings that adopt policies or program initiatives), (iv) implementation (extent to which the program is delivered as intended at both individual-level and program-level), and, (v) maintenance (extent to which the health promotion practice or policy becomes routine for an organisation). Combining the analysis of several dimensions of the framework together, rather than five separate measures, would be more beneficial for making policy decisions (Glasgow, Klesges, Dzewaltowski, Estabrooks, & Vogt, 2006). This approach would have been particularly useful for the current study, where a close

working relationship with Local Government may have assisted with future policy changes or implementations, potentially bridging the divide between research and practice even further. Unfortunately, due to the scope of this pilot study and the time and financial constraints of the research project as a whole, the RE-AIM framework of evaluation could not be applied.

Another recommendation would be to employ more measures of PA, particularly those that are objective, such as accelerometers (as discussed in Section 5.4 of this thesis). These measures would provide data pertaining to more accurate levels of PA participation behaviours before and after the intervention. However, the use of such measures also needs to be considered in relation to the cultural sensitivity or appropriateness of the group. For example, it may be that a particular group may find this too intrusive to their everyday lives, or they may not trust or feel comfortable with such devices.

6.7 CONCLUSION

The pilot intervention was designed to increase PA participation in the Karen community over the duration of the program (8 weeks), provide families with an opportunity to be active together, and try new activities for the first time. Overall, the intervention was successful in doing so. Most participants attended the sessions regularly and participated in all of the activities together. The various forms of evaluation suggested that all of the participants enjoyed the program, particularly the sport and PA components of it, and would like to partake in similar activities in the future. The intervention provided a comfortable, safe space for

Karen families to participate in PA in ways that were meaningful and valuable to them.

CHAPTER 7: OVERALL DISCUSSION AND CONCLUSION

7.1 GENERAL OVERVIEW

The main purpose of this project was to explore the various effects of cultural variables on sport and PA participation for Karen refugees. The aims were threefold; 1) explore concepts of health, sport and PA, and determine the cultural variables impacting sport and PA participation, 2) explore these concepts in more depth whilst evaluating sport and PA behaviours over time within contexts of cultural changes and acculturation, and, 3) develop and implement a culturally specific sport and PA pilot program based on an understanding of these variables. Three separate studies were developed in order to evaluate these aims respectively.

The first study concluded that sport and PA participation for Karen refugees in Australia was intricately linked to an overall sense of Karen identity. Sports and physical activities that contributed to a sense of fulfilment of Karen community roles (such as being a family caretaker), or which directly strengthened the Karen identity (e.g., playing soccer for socialisation and networking) were valued, and therefore fulfilled. Belonging to the Karen group, and maintaining a strong sense of community connectedness, was the foundation of health and feeling healthy. Health was frequently represented as a state that allowed participants to fulfil their roles and maintain their Karen identity, often experienced as being happy, feeling complete or sociable with others in the family or community. Sport in Australia was perceived as being foreign and at times in contradiction to the Karen idea of sport. Participants often reflected on how sport was played back home, and contrasted this to the unique requirements of Australian sport such as

special grounds, uniforms and cost of participation. However, one of the most interesting findings of this study was the idea that participants also had a somewhat 'superficial understanding' of health behaviours in Australia. Albeit participants recognised the health benefits of sport and PA (as well as good nutrition), these statements often lacked substance to an understanding of how these behaviours contributed to health and feeling healthy. More often than not, participants would state that 'exercise is good for you', however there would be no further discussion on their experiences on how this may be, or why they believe this. However, aspects of sport and PA that related to Karen identity and cultural roles were often discussed in detail and more emphasis on how they contributed to their health. For example, playing sport was encouraged and valued because it increased networking and built relationships between people, which ultimately increased the health of the community.

This superficial understanding of health may have been a consequence of participant responses to various health messages in Australia, particularly from family doctors and television commercials sponsored by the Government. This became especially apparent after analysing the data from Study 2, in which participants often discussed health messages they had received from their doctor regarding the health benefits of exercise. However, it is most likely a product of cultural significance and/or power relations.

Nevertheless, the results from Study 1 suggested that there were variances in concepts of health, sport, and PA, which were attributed to the differences between Karen and Australian cultural perceptions. Thus, Study 2 was developed

in order to explore these cultural concepts in more depth, whilst documenting participants' sport and PA behaviours in Australia. Alongside a PA activity diary, three interviews were organised over the period of 12 months, which were intended to track changes in behaviours and concepts over time in Australia. The results of this study reiterated the findings of the previous study, and added a richer understanding of the cultural variables of sport and PA participation for Karen refugees. Albeit participants perceived themselves as settling well and coping more effectively over time, they stressed the difficulty of adjusting to cultural changes during this process. This was particularly salient because children in the community were 'adopting the Australian way of life faster', which often meant that they displayed behaviour that was in contradiction to the Karen collectivist nature. Maintaining the Karen identity and the heritage culture was of great importance for participants, therefore this process was of substantial concern. Processes of cultural changes and adoption of cultural characteristics affected sport and PA participation for the participants. During the interviews in this study, participants discussed their sport and PA behaviours back home more openly and with greater detail. Back home, PA was often incidental whereby activities such as laboursome farming, carrying heavy loads or walking long distances comprised of everyday life requirements for participants. Thus, without the need for these activities in Australia due to the availability of fresh foods and cars, participants acknowledged that they partook in less PA in Australia, and some felt they were more healthy back home due to this.

Sport in particular was described as being a spontaneous activity that was fun and social. Although many participants had played sports back home, and some even played in Australia, none of the participants currently partook in any regular sporting activities. Participants perceived sport in Australia as being unfamiliar and foreign. This was particularly because the grounds were inappropriate as they must be booked and paid for through the Council, or because they were 'special places' where sport clubs that had coaches, uniforms and special equipment played.

Through regular interviews with participants, and lengthier discussions on specific topics around sport and PA participation, the development of a culturally tailored pilot intervention program naturally emerged. Participants all agreed that they would like to be more physically active, and they expressed interest in learning many new activities in Australia. In order for the program to be suitable and meaningful for participants, it needed to be a family inclusive program that was flexible and reactive to community requests (due to a lack of knowledge on what activities and education topics would be appropriate, enjoyable and valuable). Many logistics of the program were driven by the community such as the time, location, duration, and schedule of activities and educational topics. In order to facilitate a program that was flexible and reactive, the researcher was required to have a large network of collaborators who could provide resources and expertise if required. This included creating relationships with local sporting clubs, community organisations, various research departments within VU, and Local Government departments. Although a more structured form of evaluation

could have assessed the effectiveness and applicability of the intervention more effectively, the varied methods of evaluation utilised did suggest that the program was effective in achieving some important outcomes. These included continued engagement and enjoyment throughout the program, knowledge of various methods of PA which involve children and adults safely and effectively, fostering a sense of ownership and comfortability with the local Hub, and awareness of the role of sport and PA in health and other important health related factors such as waist measurements.

7.2 IN-DEPTH DISCUSSION

At the core of overall health and wellbeing for the Karen participants in this project, lies the concept of identity and maintenance of the Karen way of life, and other associated cultural characteristics that are highly valued (such as collectivism), which are impacted by experiences of acculturation in Australia.

This pertinent finding relates to some of the broader literature on migrant experiences and influences on behaviour, and the construction, maintenance or changes of identity (e.g., Ali & Sonn, 2010; Berry, 1974; Walseth, 2006b).

Participants recognise that life in Australia is more developed and advanced, and this has great advantages regarding safety, health, education, and freedom of movement. Thus, they display gratitude for having these opportunities and a desire to be part of the advanced life, and thus part of the Australian culture.

However, they nevertheless perceive themselves as 'not being on their [Australian people's] level.' Thus, efforts to maintain the original Karen identity are influenced by the overall desire to be part of the 'advanced Australian'

identity. This is somewhat similar to the idea of the 'multi-hyphenated identity' of Cypriot Turkish immigrants to Australia that Ali and Sonn (2010) detailed in their study. Various dialogues relating to being a modern Muslim, language, and ancestry, positioned individuals as either Cypriot Turkish Australians or Cypriot Turkish in Australia. All of the participants in this research project considered themselves as 'Karen' and thus, Karens in Australia. However, the average amount of time spent in Australia for Study 1 participants was only 2.5 years, as opposed to the participants in the above study, who had spent most of their lives in Australia (Ali & Sonn, 2010). Thus, it would be interesting to observe whether this evolving sense of identity as a Karen in Australia changes over a much longer duration of time in Australia, and whether the other influences of acculturation impact individuals' identities differently.

For the Karen, resettling to a society that they perceive as being culturally different, and at times culturally conflicted to the Karen way of life, is challenging and leads to acculturative stress. The idea that their children are adopting the perhaps opposing lifestyle characteristics of the Australian culture is concerning, and is a source of worry for the parents. This in particular exemplifies their attempts to maintain the Karen identity. However, because of the strong value of family connectedness in the Karen, these efforts may be subject to fluctuations in the future based on the changing cultural dynamics and identities between children and their parents. The findings of this project therefore suggest that participation in PA for Karen refugees is complex due to the shifting contexts of identity, where identity is at the core of understanding participation behaviours in

Australia. Thus, there is a need for more research in this area, particularly over a longer duration of time, in order to truly capture a thorough understanding of how acculturation affects PA participation for the Karen. For the time being, the Karen's strong and cohesive community have helped members to cope with major life events (such as life in the refugee camp) and thus the Karen community, their religious faith, and the family unit are all sources of support and assist the group to cope with these challenges and concerns. Therefore, the emphasis on maintaining the Karen identity at this particular point in their settlement is vital; to ensure that these support mechanisms continue to exist for current and future Karen community members.

Maintaining a sense of Karen identity is linked to sport and PA participation via an overall sense of health and wellbeing in terms of the Karen perspective of health. Participants will partake in activities that are culturally favourable and add value to the Karen community as a whole, in turn strengthening the sense of Karen identity. Each individual has a 'responsibility' to maintain and contribute to this sense of Karen community, which in turn provides them with social support. Because of this, sporting activities that provide opportunities for networking and are sociable and fun are highly valued. However, sport in Australia is perceived as being different to this and is often too competitive. Therefore, participants feel that this perspective of sport is unfamiliar, and inappropriate for them, so they rarely partake in sport in Australia. Physical activity also contributes to health and allows participants to fulfil their community defined roles. The majority of PA conducted in Australia is for transportation purposes, primarily to take children to

school and to walk to and from the train or bus station. For most participants, the attainment of a vehicle in the family reduces the need to walk, and therefore partake in PA regularly. This finding is contradictory to the general findings of much of the research, which suggests that the longer CALD migrants spend in the host country; the more likely they are to participate in sport and PA (e.g., Méjean et al., 2009; Tremblay et al., 2006). The findings of this study align more closely to the work of Guerin et al. (2003), who suggested that access to familiar or appropriate PA opportunities were very limited for Somali women in New Zealand. One of the main components of this is a significant change in lifestyles, whereby individuals go from rural, farming, and labour intensive lifestyles, to urban settings that accentuate sedentary behaviours (Porter, 2002). This drastic change in lifestyles supports the data of this study. In particular, the sense that living in Australia 'made life easier' via the acquisition of tools such as cars, lawnmowers, and rice cookers, which restricted opportunities for participants to engage in familiar physical activities that were performed back home (such as walking long distances to visit the doctor).

In addition to this, another factor specific for the Karen may involve their strong desire to belong to an 'advanced' society. This is evidenced throughout much of the data where continuous comparisons of 'back home' and 'Australia' regarding standards of living and available opportunities for freedom of movement, employment, health and education, were reiterated. This essentially placed the Australians as being 'more advanced' and 'developed' and the Karen as being 'less advanced' and 'less developed'. Overall, there is a sense that in Burma, the Karen did not identify with their nationality or state, but rather their

cultural heritage and ethnic foundations. However, the various levels of repression the group faced in Burma, have led to certain outcomes of the oppression, being associated with the identity of the group. In general, the Karen perceive themselves as 'not on the same level' of Australians, in terms of physical capabilities, or education. Participants often discussed their disadvantage in attaining employment, for instance, due to their lack of education, and thus requirements to pursue extra qualifications (such as a certificate or diploma) in Australia, in order to be 'on their level'. However, this was always expressed in terms of Karen identity, rather than the outcome of political circumstances in Burma. For example, in a discussion with the CL regarding the type of health information to be included in the intervention, she mentioned that it was very important that the information was basic because 'many Karen do not have school' – meaning that their level of educational attainment was very low (often no higher than the Australian equivalent of primary school). Thus, inherent to the perception of a Karen in Australia, is the idea that the Karen are 'less developed' and therefore wish to belong to the 'more advanced' society. Thus, owning a car is perceived as living a more 'developed' lifestyle and is therefore highly desired. So, wanting to be part of the 'advanced Australian way of life' is associated with a gradual immersion into 'Westernised sedentary lifestyle behaviours' (Porter, 2002).

This evidence based research project intended to understand and describe the current status of Karen refugee sport and PA participation in Australia, in order to develop a practical model of engagement which would be applicable to local

service providers. Several practical implications have been outlined, and effective methods of working with the Karen community have been suggested. This is a particularly important outcome in relation to the systematic literature review, which highlighted the need for more effective and culturally informed methods of intervention with CALD groups. However, this piece of research has also stressed the need for more in-depth analyses of the complex experiences of resettling CALD communities, particularly in relation to a sense of identity and belonging, which influence participation significantly. In essence, this thesis stresses that understanding Karen refugee sport and PA participation behaviours in Australia requires an understanding of these cultural underpinnings, which are highly influenced by dynamic factors of resettlement and acculturation. Therefore, the only manner in which to achieve this is to apply a highly culturally specific approach to endeavours aiming to increase sport and PA participation. Recommendations for future guidelines are described in detail in the following section.

7.3 CONTRIBUTIONS AND FUTURE DIRECTIONS

This project as a whole has contributed a considerable amount towards academic advances in knowledge relating to this topic. The value of the project is in addressing two critical gaps highlighted in the systematic literature review (Chapter 2, Review of Literature) pertaining to the amount of research and understanding of CALD communities and sport and PA participation. The first and most crucial is the limited academic attention and overall understanding of the role that culture and processes of resettlement and acculturation have on

influencing participation behaviours. Some studies in the literature review did not gather data such as length of time in the current country, and others utilised terms such as 'multiethnic' to describe their populations (Albright et al., 2005). An emphasis on understanding the true impact of cultural background and changes in the new country was missing in the literature, and this study aimed to address that need. The second gap also highlighted by the literature review was the lack of research on practical, effective, and sustainable based interventions. This is also prevalent in local service provision, where current Australian Government attempts to increase sport and PA participation in CALD communities are ineffective (based on previous work experience). Thus, the project aimed to identify the most appropriate and effective methods of addressing issues of low Karen refugee participation through practical means. The results of the project suggest that practical interventions can indeed be effective in engaging Karen refugees in increased amounts of sport and PA, and thus the practical recommendations to emerge from the project will be of immense value.

The outcomes of this project are highly relevant to wider research since refugee and CALD populations in general are increasingly migrating to 'Westernised' countries such as Australia (Australian Government, 2009a). Research trends suggest that these populations are facing greater health risks upon their resettlement (e.g., Ayodele et al., 2004; Kemp & Rasbridge, 2004; Ramachandran et al., 2010), particularly in areas such as lifestyle diseases and mental health, where sport and PA participation are crucial in preventing or managing risks and symptoms (Hardman & Stensel, 2009; Warburton et al.,

2006). However, little is still known about why CALD communities do not partake in sport and PA in their resettled countries, and how the issue can be addressed in practice. This project therefore advances our knowledge in this field by suggesting that practical efforts to increase sport and PA participation can be effective, if the approach is culturally specific. Moreover, the findings of the project call for more in-depth research that needs to occur, in order to build on the existing knowledge further. In particular, pertinent findings regarding a sense of identity (and how it fluctuates and changes during processes of resettlement and acculturation), and belonging, and how they affect participation, need to be further explored in the future. This could not be achieved in this thesis due to the strong emphasis on practical implications and the development of the intervention; however, it does set a foundation upon which future research can be built.

The outcomes of this study suggest that CALD community participation in sport and PA in resettled countries is highly influenced by the dynamic processes of resettlement and acculturation. These processes affect how health and wellbeing are perceived, a sense of identity and belonging, and in turn, affect participation behaviours. Therefore, it is suggested that future research in this field needs to apply a highly culturally specific approach to thoroughly understand these variables. In doing so, researchers can offer methods of addressing the issue through culturally appropriate and effective means, which are specific to the cultural groups they are working with. This would ensure that practical efforts by service providers can be truly meaningful and valuable, and can lead to

sustainable changes in behaviours for CALD communities. Researchers can apply culturally specific methods in a similar fashion to this project. Time and efforts are initially dedicated to building a strong network and relationship with the local community group, developing a deep understanding of their cultural patterns and current social dynamics, and, employing a participatory approach to program development allowing communities to make decisions and engage with the program throughout.

Future research also needs to be longitudinal in nature, in order to capture the changing dynamics involved in the resettlement and acculturation processes, and analyse how they affect identity, sense of belonging, and participation behaviours over time. Other considerations to future researchers in this field would be to employ more objective measures of sport and PA participation, such as accelerometers and GPS tracking devices (see Chapter 5, Section 5.4 for more information). These would provide a more reliable method of capturing objective sport and PA data, and possibly eliminate potential issues with self-report data as utilised in this study. Moreover, future studies would also benefit from utilising comprehensive theories to systematically interpret the mechanisms of how acculturation and processes of resettlement affect participation. This would add greater depth to the meaning of research results, and would contribute substantially to theoretical discussions and knowledge in this area, which are evidently missing. Having said that however, as discussed in Chapter 2 (Section 2.4.1), theoretically driven research in this area needs to take into consideration the transferability of Western developed theories and concepts and their suitability or applicability to groups from non-Western backgrounds. Thus,

theories could be utilised to guide research and add depth of analysis to meaning, rather than employing an encompassing reliance on theoretical foundations. A possibility would be to either develop a new theory from the research outcomes, or test the applicability of pre-existing theories to the specific cultural groups researchers are working with, by analysing whether key concepts, terms and ideas are relevant and meaningful to the groups.

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APPENDICES

Appendix A Detailed characteristics of all studies included in review

Study	Culture/s or ethnic group/s	Main correlates	Results
Country			
Theoretical framework	Sample size		
<i>Type of physical activity</i>	Mean age		
Qualitative			
Eyler et al. (1998)	Asian American (Chinese, Filipino), Pacific Islander, Black, Hispanic, American Indian (women)	<i>Positive</i> Having role models and motivational people. <i>Negative</i> Safety, availability, cost, time, health concerns, lack of motivation, lack of social support, age, lack of knowledge, weather, transportation, language, self-esteem, cultural norms, family commitments, behaviour of others.	Participants indicated they engaged in recommended amount of PA through caregiving, housekeeping and workday activities. Many barriers could be addressed with appropriate policies and interventions.
USA			
N/A			
<i>PA NS</i>			
Eyler, Matson-Koffman,	White, African	<i>Positive</i>	Family priorities were the main barrier

et al. (2002)	American, Latina, American Indian (women)	Social support. <i>Negative</i> Family commitments, cultural norms (PA was not valued), language skills, lack of prior experience, knowledge, general health (weight was a barrier), weather, safety, geographic isolation, cost, fatigue of physically demanding jobs	to PA. Having multiple roles as wife, mother, daughter and active community member was time consuming.
USA			
N/A			
<i>PA NS</i>			
Amara and Henry (2010)	Muslim	<i>Positive</i> Religious consideration (encouraging). <i>Negative</i> Behaviour of others.	Common themes emerged across participants including social inclusion, gender equity, cultural diversity and targeting faith groups. PA and sport were seen as a means of acculturation.
UK			
N/A			
<i>Sport</i>		PA and sport were means of acculturation (synthesis of Muslim and non-Muslim traditions – British	

		values of active citizenship).	
Barnes and Almasy (2005)	Bosnian, Iranian, Cuban	<i>Positive</i>	Sample engaged in adequate amount of PA conditioned by positive correlates. Some refugees were more active in home country reporting less use of cars.
USA	31	Past behaviours in home country, manual labour jobs, readiness to change stage.	
		<i>Negative</i>	
Transtheoretical model	36.4	Access to facilities, unfamiliarity with physical environment and safety.	
Health promotion			
<i>PA NS</i>			
Belza et al. (2004)	American	<i>Positive</i>	Walking was exercise of choice.
	Indian/Alaska	Maintaining physical health, social	Family was source of encouragement,
USA	Native, African	support, managing chronic health	exercise was a means of health
	American, Filipino,	conditions for some groups.	promotion, health was both a motivator
Ecological model	Chinese, Latino,	<i>Negative</i>	and barrier.
	Korean,	Managing chronic health conditions	
<i>PA NS</i>	Vietnamese	for some groups, availability of	
		facilities, safety, cost, weather,	

	71		transport, social isolation.
	71.6		
Caperchione et al. (2011)	Bosnian, Arabic speaking, Filipino, Sudanese (women)	<i>Positive</i>	Being physically active can be considered normal for some cultural groups. Ethnic specific themes influenced physically active behaviour.
Australia		Knowledge, health concerns, husband's support, motivation, previous experience.	
	110	<i>Negative</i>	
N/A		Family commitments, safety, health concerns, religious considerations, time, cultural norms, post-traumatic stress for some refugees, language, fatigue, access to information, isolation, weather, cost.	
PA NS	46.2		
Curry et al. (2015)	South Asian (women)	<i>Positive</i>	Contextualisation of adequate amounts of PA included 'keeping busy', whilst sedentary time was perceived as 'lazy', indicating that
UK		Time of day (early morning and evening), intensity (preference for low intensity).	
	24		

Ecological model	52.8		participants lacked awareness of intensity of PA and adverse health effects of prolonged sedentary time. Few participants were sufficiently active and 66% were less active than perceived.
<i>PA NS</i>			
Evenson et al. (2002)	Latina (women)	<i>Positive</i>	Environmental, policy and sociocultural barriers identified with consistency.
USA	49	<i>Negative</i>	Participants suggested health promotion involving the family.
N/A	32	Gender norms, time, child care, access to information, language barriers, isolation, transport, facilities, cost, behaviour of others, safety, family commitments.	
<i>PA NS</i>			
Hacisoftaoğlu and Pfister (2012)	Turkish (women)	<i>Positive</i>	PA and sport are not at the centre of lives of Turkish women in Denmark, they are not main assets in the struggle for integration, however are
Denmark	5	Facilities had greater access and opportunity than home, previous experience playing sport.	

	45.2	<i>Negative</i>	experienced as additional benefits or
Bourdieu's (1984)		Cultural norms (exercise and sport	duties in pursuit of health.
relationship between		not valued).	
supply of PA and			
disposition of individuals		Belief in God and faith was not	
		influential in PA pursuits.	
<i>Sport</i>			
Mathews et al. (2010)	African Americans,	<i>Positive</i>	Most common barriers were health
	American Indians,	Social support, maintain physical	problems, fear of falling and
USA	Latinos, Chinese,	health, type of activities offered	inconvenience. American Indians
	Vietnamese, Non-	(specific for older adults), motivation.	mentioned environment and lack of
Grounded theory	Hispanic Whites	<i>Negative</i>	knowledge about PA as barriers and
		Belief in God and faith was	enablers more than other groups.
<i>PA NS</i>	396	prohibitive, lack of knowledge, cost,	American Indians and Non-Hispanic
		transportation, weather, self-	Whites emphasised importance of PA
	71	conscious, health concerns (e.g.,	programs designed for older adults.
		heart problems), inconvenience, age	
		(fear of falling), facilities (hours of	

			operation), time, safety.
Maxwell and Taylor (2010)	Muslim (women)	<i>Positive</i>	Building social capital through sport with Muslim women. Potential for development of trust, cooperation and community networks which lead to cultural awareness and changed cultural practices of sports organisations.
Australia		Organisational structure (developed through consultation with the community), social support	
Social capital		<i>Negative</i>	
<i>Sport</i>		Religious considerations, cultural appropriateness of the sport club	
Purath et al. (2011)	Russian-speaking	<i>Positive</i>	Walking was the most frequently mentioned activity. Increased energy and decreased pain were seen as health benefits. Participants suggested walking groups and church-supported programs to promote PA.
USA	Slavic	Religious relationship (support of God), maintaining physical health.	
N/A	23	<i>Negative</i>	
	72.9	General health (pain as a barrier), age, safety, weather, transport.	
<i>PA NS</i>			

Snape and Binks (2008)	South Asian	<i>Positive</i>	With this group a mode of delivery for
	Muslims	Organisational structure (if developed through consultation with community and bilingual support), perceptions of ability to participate, appealing range of activities.	programs grounded in PA and personal health may be more successful than sport and competition. Cultural factors specific to this group need to be addressed to increase participation.
UK			
N/A			
<i>Sport</i>		<i>Negative</i> Cultural norms (relating to sport), religious consideration (sexual connotation of exercising), type of activities, self-conscious (not knowing how to use facility), privacy, time, safety.	
Stewart, Grossman, et al. (2006)	African American, Pacific Islander, Other Asian, Other	<i>Positive</i> Physical health, managing chronic illness (viewed as a motivator for PA).	Participants identified needs for culturally diverse resources that are culturally tailored, promotion of existing resources and demonstration of future cost savings.
USA	47	<i>Negative</i>	

Ecological			Age (preventing falls), lack of time, lack of knowledge.
<i>PA NS</i>			
Stodolska and Shiew (2010)	Latino		<i>Negative</i>
	26		Facilities (lack of outdoor space), home country (different routines), safety and fear of crime, transport, behaviour of others, different routines than in the home country.
USA			Specific cultural barriers including language problems, racial tensions and discrimination limited Latino's involvement in leisure time PA.
Ecological			
<i>Leisure time physical activity</i>			
Taylor (2004)	Culturally and linguistically diverse (CALD) (women)		<i>Positive</i>
Australia			Previous PA experience, social support, socialisation, motivation, acculturation.
N/A	18		<i>Negative</i>
			Language difficulties, self-conscious

<i>Sport</i>			(not knowing the rules of the game).
Taylor and Toohey (2001)	Muslim (women)		<i>Positive</i>
	32		Attitude to PA, enjoyment, organisational structure (facilitative of needs).
Australia			<i>Negative</i>
N/A			Behaviour of others (gross stereotyping), feelings of isolation, religious considerations
<i>Sport</i>			(inappropriateness of uniform), facilities.
Taylor et al. (2008)	Chinese		<i>Positive</i>
	46		Social support (encouragement of friends), type of activities (specific to needs).
USA			<i>Negative</i>
N/A			Age (inappropriateness of exercising), time, weather, safety,
<i>PA NS</i>			

			unfamiliarity with the environment, cost.
Walseth (2006b)	Muslim (women)	<i>Positive</i>	Being a young woman and
		Motivation.	participating in sport is viewed as a
Norway	21	<i>Negative</i>	challenge to ethnic identity (not seen
		Religious consideration (femininity	as a respectable femininity). Those
N/A		not associated with sport), cultural	who regard religion (Islam) more
		norms (culturally inappropriate).	important sources of identity view PA
<i>Sport</i>			as important because of Islam's health
			aspects.

Quantitative

Eyler et al. (1999)	Black, Hispanic,	<i>Positive</i>	Hispanic women were less likely to be
	American Indian/	Social support.	sedentary. There was no significant
USA	Alaskan native,		difference between the contribution of
	White (women)		friend support versus family support on
Social support			all measures of PA.
	2,912		
<i>PA NS</i>			

Afable-Munsuz et al. (2010)	Mexican, Chinese, Filipino	<i>Positive</i>	Immigrant generation is a significant determinant of PA. There is an association between later generations (2 nd and 3 rd) and greater leisure time PA.
USA	7,893	Immigrant generation (PA increases with generations in the new country).	
Segmented Assimilation Theory			
<i>PA NS</i>			
Ahmed et al. (2005)	Black, Hispanic, Other (men)	<i>Positive</i>	Hispanics were less likely to be active than Whites.
USA	23,459	Citizenship (PA increased with Citizenship of new country).	
N/A			
<i>Leisure time physical activity</i>			
Eyler et al. (2003)	White, African	<i>Positive</i>	Personal correlates were younger age

	American, Latina, Native American (women)	Social support (role models). Perception of ability to participate not positively associated for some groups.	and good health. Social environmental factors included knowing people who exercise.
USA			
Ecological model			
<i>PA NS</i>			
August and Sorkin (2011)	Non-Hispanic White, African American/ Blacks, Asian/ Pacific Islanders, Latinos	<i>Positive</i> Acculturation. <i>Negative</i> Age (middle-age to older were less likely to be engaged in PA)	Racial minorities generally engaged in less exercise. Among middle-aged respondents, all racial minorities engaged in less vigorous PA than whites.
USA			
N/A			
	33,189		
<i>PA NS</i>			
Ayala et al. (2011)	Latino	<i>Negative</i> Employment (type of job and hours worked predicted leisure time PA, occupational PA and household PA	Blue collar workers expended more metabolic equivalent (MET) minutes per week than white collar or non- workers. Those working 20hrs per
USA	633		

N/A	39.5	differently).	week or less expended less occupational PA compared with those working more than 20hrs per week.
<i>Occupational and work related physical activity</i>			
Bird et al. (2010)	Anglo Celtic,	<i>Positive</i>	47% of the participants achieved
	Croatian, Greek,	Motivation (for health), enjoyment	national PA guidelines. No significant
Australia	Italian,	(differed between groups).	differences between cultural groups
	Macedonian,	<i>Negative</i>	were found.
Ecological perspective	Maltese,	Safety (high crime rate).	
	Vietnamese		
<i>PA NS</i>			
	333		
	72		
Brownson et al. (2000)	African American,	<i>Positive</i>	72% of respondents reported being
	American Indian/	Education (greater levels of	physically active through occupational
USA	Alaskan Native,	education increased PA).	activity measurements. When all
	Hispanic, White		domains of PA were taken into account

N/A	(women)		not all groups were less active than White women.
PA NS	2,912		
Bryan et al. (2006)	White, Other, North American	<i>Negative</i>	Prevalence of PA in Canadian adults varies by ethnicity. Order of prevalence of moderate activity was White, Other,
Canada	Aboriginal, Latin American, East/	Gender – females engaged in less PA than males.	North American Aboriginal, Latin
N/A	Southeast Asian,		American, East/ Southeast Asian,
PA NS	Black, West Asian/ Arab, South Asian		Black, West Asian/ Arab, South Asian.
	171,513		
Bull et al. (2001)	Black, American Indians/ Alaskan	<i>Positive</i>	Over half of the sample undertook regular exercise (maintenance stage),
USA	Native, Hispanic, White (women)	Readiness to change stage (difference amongst ethnic groups regarding readiness to change stage and PA).	25% were in the precontemplation stage and 15% in the contemplation stage. Black women were less likely to
Transtheoretical model			

	2,912		be in active stages than Hispanics and Alaskan Native/ American Natives.
<i>PA NS</i>	55		
Bungum et al. (2011)	Hispanic	<i>Positive</i>	Supportive destinations in the neighbourhood were associated with the higher PA group. More acculturated participants engaged in more PA.
USA	331	Acculturation (greater acculturation increased PA), walkability (supportive environment), facilities (availability of parks).	
N/A	38.4		
<i>PA NS</i>		<i>Negative</i>	
		Safety (traffic), age (older age associated with less PA).	
		Gender differences found not to be significant.	
Marquez and McAuley (2006)	Latino	<i>Positive</i>	Latinos high in leisure time PA had greater exercise and barriers self-efficacy, received more social support and placed greater importance on
USA	153	Social support, perceptions of ability to participate, attitudes to PA (perception of the importance of	

N/A	29.4	exercise).	outcomes. No difference found for social support from family.
<i>PA NS</i>			
Daniel et al. (2013)	South Asian Indian	<i>Positive</i> Type of activity.	Participants' average number of daily steps were categorised in the 'low active' classification and just over half of the participants met recommended PA guidelines. Men engaged in significantly more jogging/running than women, whereas women performed higher amounts of light house work and light gardening.
USA	110	<i>Negative</i> Intensity.	
N/A	53	No gender differences found in overall LTPA levels.	
<i>Leisure time physical activity</i>			
Marquez et al. (2011)	Latino	<i>Negative</i> Gender – females engaged in less PA than males, age (older age associated with less PA)	The majority of participants did not meet PA guidelines. Men and younger participants engaged in more PA. Women engaged in more housework related PA.
USA	174		
N/A			

			Acculturation was not found to be significant.
<i>PA NS</i>			
Marquez et al. (2008)	Latino	<i>Negative</i>	Latinos reporting high Leisure time PA
USA	148	Gender – females engaged in less PA than males.	engaged in more daily minutes of vigorous or very vigorous activity than Latinos reporting low Leisure time PA.
N/A	29.4		Many Latinos met PA guidelines.
<i>PA NS</i>			
Marquez et al. (2010)	Non-Latino Black, Hispanic or Latino, Non-Latino White	<i>Positive</i>	Non-Latino Blacks and Latinos had significantly more individuals reporting no leisure time PA compared with Non-Latino Whites. Latinos had the greatest proportion of individuals reporting no leisure time PA.
USA		Acculturation (greater levels of acculturation associated with increased PA).	
N/A	127,596	<i>Negative</i>	
<i>PA NS</i>	38.1	Employment (type of work affected amount and type of PA).	
Dergance et al. (2003)	Mexican	<i>Positive</i>	Self-consciousness and lack of self-

	Americans, European Americans	Social support, knowledge, enjoyment. <i>Negative</i>	discipline, interest, enjoyment, knowledge were predominant barriers in both groups. Both groups had
USA			
N/A		General health (being unhealthy), self-conscious, fatigue, facilities (inappropriate).	similar beliefs about the benefits of leisure time PA.
PA NS	210 73.8		
Dergance et al. (2005)	Mexican Americans, European Americans	<i>Positive</i> <i>Negative</i>	For Mexican Americans structural assimilation into the broader American society was associated with leisure time PA.
USA			
N/A		Gender – females participated in less PA than males, general health (mental health and cognitive impairment)	
PA NS	749 69.2		
		Age, education, cultural values and perceptions of ability did not have significant associations.	

Hall et al. (2002)	African American, Asian, Hispanic	<i>Positive</i> Type of activity (preference for certain types of activities).	No significant difference between ethnicity and PA. African Americans reported more regular PA than Asians or Hispanics.
USA	347	<i>Negative</i>	
N/A		Weather.	
<i>Sport</i>			
Hayes et al. (2002)	Indian, Pakistani, Bangladeshi, South Asian, Other	<i>Positive</i> Type of activity (diverse programs for specific groups).	Europeans were more physically active than Indians, Pakistanis or Bangladeshis. European men and women participated more frequently in moderate and vigorous sport and recreational activities.
UK	709	<i>Negative</i>	
N/A		Gender – females engaged in less PA than males, general health (being unhealthy).	
<i>PA NS</i>			
He and Baker (2005)	Black, Hispanic, Other	<i>Positive</i> Education (higher levels of education increased PA).	Leisure time PA was lower for Blacks and Hispanics. Leisure time PA steadily declined with lower levels of education. Work related PA (including
USA	9,621	<i>Negative</i>	

N/A		Gender – females engaged in less strenuous job-related activities and	
	56	PA than males, employment (leisure household chores) showed the	
<i>Leisure time and work related physical activity</i>		time PA decreased with increased work related PA).	opposite relationship.
Hofstetter et al. (2008)	Korean	<i>Positive</i>	32.8% of Koreans vigorously exercise
		Acculturation (greater levels of or walk. Participants who were women,	
USA	2,830	acculturation association with less acculturated, married and less	
		increased PA).	educated reported lower vigorous
N/A	40		exercise.
<i>PA NS</i>			
Hosper, Nierkens, et al. (2008)	Turkish, Moroccan (women)	<i>Positive</i>	Acculturation was strongly associated
		Social support, perceptions of ability with participation in sport among	
Netherlands	428	to participate, motivation (greater Turkish but not Moroccan women.	
		number of motivators increased PA),	
		acculturation (greater level of	
N/A		acculturation was positive correlate	
		for one group).	

<i>Sport</i>		<i>Negative</i>	
		Weather, general health (being unhealthy), number of barriers (greater number of barriers decreased PA).	
Jönsson et al. (2012)	Finnish, Chilean, Iraqi (women)	<i>Positive</i>	Iraqi women participated in the least amount of LTPA, Finnish women had higher language proficiency, better socio-economic status and were older at migration, and participated in the highest levels of LTPA.
Sweden	1651	Increased language proficiency, younger age at migration.	
N/A			
<i>Leisure time physical activity</i>			
Jurkowski et al. (2010)	Latina (women)	<i>Positive</i>	Only 6.6% of participants met the American PA recommendation of 5 days per week. 25% participated in PA 2 or more times per week.
USA	289	Acculturation (greater levels of acculturation associated with increased PA), age (younger age associated with increased PA),	
N/A	44.8		

<i>PA NS</i>	education (greater levels of education increased PA), religious consideration (attending religious service increased PA), home country experience (activity performed in the home country predicted PA in current country).
Khaing Nang et al. (2010)	Chinese, Malay, Asian Indian
Singapore	4,750
N/A	<i>Positive</i> Income, education (greater levels of education increased PA), type of activity (more commitment to household and occupational PA than leisure time PA for some groups).
<i>PA NS</i>	<i>Negative</i> Age (older age associated with less PA), gender – females participated in PA than males, employment (type of work affected type and amount of

		PA).	
Koca and Lapa (2014)	Turkish	<i>Positive</i>	Indicators of acculturation (migrant generation, length of residence and language proficiency) were not associated with PA. Turkish migrants in Germany participated in significantly more PA than those in England, age, gender, marital status and education were correlates of PA.
Germany and UK	516	Host country (those living in Germany participated in higher levels of PA), age (younger age associated with increased PA), marital status (not cohabiting with spouse/partner) associated with higher PA.	
N/A		<i>Negative</i>	
PA NS		Gender – females engaged in less PA than males, education (university level education associated with less PA in Germany), acculturation was not associated with PA in both Germany and the UK.	
Lee and Im (2010)	Hispanic, Non-Hispanic White,	<i>Negative</i>	Non-Hispanic White people had a statistically significantly higher level of leisure time PA than Asian Americans
USA	Non-Hispanic	General health (being unhealthy), employment (increased work related	

Multiracial feminism	African American, Non-Hispanic Asian American (women)	physical activity decreased leisure time PA).	and Hispanics. African Americans reported the lowest levels of exercise.
<i>PA NS</i>	441		
	48.8		
López et al. (2008)	Latina (women)	<i>Positive</i>	Women who worked outside the home, had positive attitudes about PA,
USA	399	Attitudes (perceptions of amount of PA peers do), access to facilities, education (greater level of education increased PA), access to information (particularly local radio).	perceived themselves to have access to activity facilities and safe neighbourhoods reported higher total PA.
Ecological framework		<i>Negative</i>	
<i>PA NS</i>		Safety (perceived unsafe environments decreased PA), employment (type of work affected amount and type of PA).	

Magoc et al. (2012)	72% Hispanic, Other	<i>Positive</i> Attitudes to PA (perception of the importance of exercise).	Participation in exercise did not meet the recommendations for PA. Exercise importance and gender were strong predictors of PA.
USA	392	<i>Negative</i> Age (older age associated with less PA), gender – females engaged in less PA than males, general health (being unhealthy).	
N/A			
<i>PA NS</i>			
Marshall et al. (2007)	Non-Hispanic White, Non- Hispanic Black, Hispanic	<i>Positive</i> Education (higher levels of education increased PA), income. <i>Negative</i> Gender – females engaged in less PA than males, age (older age associated with less PA), employment	Non-Hispanic Blacks and Hispanics are more inactive during leisure time than Non-Hispanic Whites. Social class rather than occupational PA moderates the relationship between race/ethnicity and leisure time PA.
USA	11,211		
N/A			
<i>Leisure time physical activity</i>			
Mâsse and Anderson (2003)	African American, Hispanic, Non-	<i>Positive</i> Readiness to change, education,	Ethnic differences by education and income associated with some

	Hispanic (women)	income, attitudes (perceptions of amount of PA peers do).	correlates of PA.
USA	246	<i>Negative</i>	
N/A	49.3	General health (being unhealthy), age (older age associated with less PA), number of barriers (PA decreased with increased amount of barriers).	
<i>PA NS</i>			
Méjean et al. (2009)	Tunisian (men)	<i>Positive</i>	Men who had distant social ties with Tunisia had a lower physical activity level than those who had close social ties with Tunisia.
France	150	Time in the country (more time spent in the country was associated with increased PA), acculturation (greater levels of acculturation associated with increased PA).	
N/A	50.2		
<i>PA NS</i>			
Mier et al. (2007)	Mexican Americans	<i>Negative</i>	A majority of border Mexican Americans did not exercise at all.
USA	933	Age (older age associated with less PA), gender – females engaged in	Understanding personal and

N/A		less PA than males, general health (being unhealthy).	environmental factors influencing PA in this population is critical for health interventions.
<i>PA NS</i>			
Ng et al. (2007)	Columbian	<i>Positive</i>	61% of participants met PA recommendations. 73% reported being less active than before coming to Canada.
Canada	77	Previous levels of PA (those who were active prior to immigrating were more likely to be active in the current country).	
N/A	39.9	<i>Negative</i>	
<i>PA NS</i>		Gender – females engaged in less PA than males, age (older age associated with less PA).	
Perez et al. (2011)	Black–Caribbean, Caucasian, Black–African, South Asian, West Indian/ Guyanese,	<i>Positive</i> Social support	English speakers without car access least likely to be sedentary followed by English speakers with car access.
Canada		<i>Negative</i>	
N/A		Age, transport, language difficulties	English language facility and car access moderate relationships of

	Chinese, Southeast		social-environmental factors and PA.
<i>PA NS</i>	Asian, Hispanic/ Latin American, Multiethnic/ Other		
	401		
	39.3		
Suminski et al. (2002)	Asian, African, White, Hispanic American	<i>Positive</i> Previous exercise experience. <i>Negative</i> Gender – females engaged in less PA than males (not a uniform effect across different ethnic groups).	46% of the sample did not participate in vigorous PA. Weight-training activity, youthful PA and TV viewing accounted for a portion of the variance in PA levels.
USA			
N/A	2,836		
<i>PA NS</i>			
Ransdell and Wells (1998)	African American, Mexican (women)	<i>Positive</i> Education (higher levels of education increased PA significantly in White	Majority of women were sedentary. Women of colour, women over 40 and women without a college education

USA	521	women), general health, marital status	had the lowest levels of leisure time PA.
N/A	40.5	<i>Negative</i>	
<i>PA NS</i>			
Suminski et al. (2009)	Euro American, Asian/ Pacific Islander, African American,	<i>Negative</i> Facilities (lack of appropriate). Household income was not significantly associated.	Moderate and vigorous PA was similar across the groups even though ethnic minorities had less supportive homes and neighbourhoods and fewer facilities. Vigorous PA was associated with better neighbourhood characteristics for Euro Americans.
USA			
N/A	Hispanic/ Latino, Native American		
<i>PA NS</i>			
	715		
	24.3		
Bird, Kurowski, et al. (2009)	Italian, Vietnamese, Anglo Celtic (women)	<i>Positive</i> Enjoyment (liking the activity increased PA), motivation.	There was no difference between groups in total minutes of PA per week. Italian participants reported

Australia		<i>Negative</i>	personal barriers (poor health, not liking it) whilst Vietnamese participants described physical environment as less suitable (less safe, less attractive).
	72	Number of barriers (PA decreased with increased amount of barriers),	
Ecological perspective		general health (being unhealthy),	
	69.3	fatigue (too tired), time, socialisation (lacking someone to exercise with), self-conscious.	
PA NS			
Saint Onge and Krueger (2011)	Non-Hispanic Whites, Non-Hispanic Blacks,	<i>Positive</i>	Three types of exercises were identified, team sports (e.g., football), fitness activities (e.g., running) and activities requiring specialised facilities (e.g., tennis). Whites undertake facility based exercise, Blacks tend toward team and fitness activities and Mexican Americans gravitate towards team sports.
USA	Mexican Americans	Type of activities (activities that were more appealing increased PA), education (greater levels of education increased PA).	
N/A	17,455	<i>Negative</i>	
PA NS		Gender – females engaged in PA less than males, age (older age associated with less PA).	
Seo and Torabi (2007)	Non-Hispanic Black, Hispanic	<i>Positive</i>	None of the demographic variables were independent predictors of
		Education (higher levels of education	

USA	1,000	increased PA), income <i>Negative</i>	meeting moderate PA guidelines (except race/ethnicity) whereas they
N/A		Age, general health (being unhealthy), gender – females	were predictive of meeting the vigorous PA guidelines.
<i>PA NS</i>		engaged in less PA than males, employment (leisure time PA decreased with increased work related PA).	
Shifflett et al. (1991)	Asian, Caucasian	<i>Positive</i>	Significant relationships between
USA	413	Motivation (commitment to an active lifestyle), perception of ability to participate, previous experience, type	choice of activity and ethnicity, commitment to active lifestyles and ethnicity and perceived skill level and
N/A	22	of activities (preference for certain types of activities).	ethnicity.
<i>PA NS</i>			
Sinnapah et al. (2009)	Asian Indians	No gender differences found.	Asian Indians reported lower energy expenditure and lower PA than their
France	122		Afro-Caribbean counterparts. No sex-

N/A	38		ethnicity interactions were significant.
<i>PA NS</i>			Study reports a tendency toward physical inactivity in Asian Indians of Guadeloupe.
Bird, Radermacher, et al. (2009)	Anglo, Croatian, Greek, Italian, Macedonian, Maltese, Vietnamese	<i>Positive</i> Walkability (aesthetic appeal of walking increased PA), motivation	66% of participants attained recommended minimum of PA per week. Frequency did not differ between groups. Differences of facilitators and barriers existed for different cultural groups.
Australia		<i>Negative</i> General health (being unhealthy), safety, weather	
N/A	333		
<i>PA NS</i>		No gender differences found.	
	72		
Sternfeld et al. (2000)	African American, Chinese, Hispanic, Japanese, White (women)	<i>Positive</i> Education, age (older women were more active than younger women), employment (type of work affected type and amount of PA).	Minimal ethnic differences in self-reported PA levels. Substantial differences in activity levels across other demographic and health status variables.
USA			
N/A			

	13,621	<i>Negative</i>	
<i>PA NS</i>		General health (being unhealthy).	
Swenson et al. (2005)	Hispanic, Non-Hispanic White	<i>Positive</i>	The most common activities were walking and home maintenance/ gardening. Within all age groups
USA	903	Motivation, type of activity (preference for certain types of activities).	Hispanics had lower productive and recreational PA than Non-Hispanic Whites.
N/A		<i>Negative</i>	
<i>PA NS</i>		Age (younger age associated with more PA), gender – females engaged in less PA than males.	
Tremblay et al. (2006)	White, Other, Black, Latin American, West Asian/ Arab, East/ Southeast Asian, South Asian	<i>Positive</i>	Other cultural groups were less physically active than Whites. South Asian men and women had the lowest PA.
Canada		Time in the country (more time spent in the country was associated with increased PA).	
N/A		No gender differences found.	
<i>PA NS</i>	171,513		

Walker et al. (2015)	South Asian	<i>Positive</i>	Moderate LTPA was higher in low-
Canada	204	Acculturation categories referring to maintenance of heritage culture and integration into mainstream culture.	separation and high-separation categories of acculturation, and vigorous LTPA was greater for integrated-heritage and integrated-mainstream modes.
Four-mode acculturation framework			
<i>Leisure time physical activity</i>			
Wilcox et al. (2000)	African American, American Indian/Alaskan Native, Hispanic (women)	<i>Negative</i>	Rural, particularly Southern and less educated women were more sedentary than urban women. Rural and urban women have different barriers and enablers.
USA		Rural location (women in rural areas less likely to participate in PA), age (older age associated with less PA).	
Social, cognitive and ecological perspective			
<i>PA NS</i>			
Wolin et al. (2006)	White, Black,	<i>Positive</i>	Participants with low acculturation

	Hispanic, Asian or Pacific Islander, Native American	Acculturation (greater level of acculturation associated with increased PA), generation (PA increases with generations in the new country), income.	reported lower PA than those who were highly acculturated.
USA			
N/A	3,959		
PA NS		<i>Negative</i>	
	46.8	Gender – females engaged in less PA than males, employment (type of work affected amount of PA).	
Yang et al. (2007)	Korean (women)	<i>Positive</i>	32% of participants were not engaged
USA	152	Education (higher levels of education increased PA), self-efficacy (greater perceptions of ability to participate increased PA), motivation (greater number of motives increased PA).	in any exercise. Levels of acculturation were not significantly related to PA. Leisure time PA was associated with
Self-efficacy	47		perceived benefits and barriers and social support.
PA NS		<i>Negative</i>	
		Income (higher income was associated with lower occupational	

PA).

Acculturation level was not significantly related to PA, number of barriers (PA decreased with increased amount of barriers).

Intervention

Albright et al. (2005)	Primarily Latina (women)	<i>Positive</i>	Women in the phone and mail
USA	72	Social support (counselling for the intervention), motivation, readiness to change, perceptions of ability to participate.	counselling group increased their total energy expenditure compared to those in the mail support group.
Transtheoretical model	32	<i>Negative</i>	
PA NS		Number of barriers (PA decreased with increased amount of barriers).	
Borschmann et al. (2010)	Macedonian, Polish	<i>Positive</i>	No significant between-group difference was found.
Australia	121	Knowledge (provision of information), ability to participate (overcome barriers).	

 Transtheretical model

 Not supportive of perceptions of
 ability to participate increases PA.

PA NS

Castro et al. (1999)

Hispanic, African

Positive

Three out of 4 correlates were not

American, Asian/

Perceptions of ability to participate

positively influenced by the

USA

Pacific Islander,

(self-efficacy), enjoyment, social

intervention but changes in self-

Native American,

support.

efficacy from baseline to the follow up

Learning theory – self-

Middle Eastern,

Negative

was associated with increases in

efficacy, social support,

Mixed (women)

Number of barriers (PA decreased

walking.

perceived barriers,

with increased amount of barriers).

enjoyment

128

PA NS

Guerin et al. (2003)

Somali (women)

Negative

Cultural issues, religious issues,

Family commitments (taking care of

safety, discrimination and other

New Zealand

37

children can inhibit PA), gender –

practical issues are specific to Somali

females engage in less PA than

women.

N/A	33	males, religious considerations (privacy concerns), age	
PA NS		considerations (appropriateness of exercise depending on age), behaviour of others, safety, transport, cost, language difficulties, weather (different to home country).	
Hickmann et al. (1999)	Latinas, African American, Asian, Other (women)	<i>Positive</i> Self-esteem.	Both groups reported similar increases in walking. Significant improvements in total self-esteem, perceived attractiveness and competency.
USA			
N/A	102		
PA NS			
Stewart, Gillis, et al. (2006)	207	<i>Positive</i> Organisational structure (supportive and inclusive of community), increased access, knowledge	There was a trend toward increased PA at some organisations. There were unexpected community-level benefits.
USA			

	(access to information), motivation.
N/A	<i>Negative</i>
PA NS	Age issues (issues with older people exercising), time.

N/A Not applicable as there was no theoretical framework applied

NS Not specified/ general activity levels

PA Physical activity measured as a group of behaviours

INFORMATION TO PARTICIPANTS INVOLVED IN RESEARCH



You are invited to participate

You are invited to participate in a research project titled: **Exploring the cultural and psychosocial variables affecting participation in sports and physical activity by recently arrived culturally and linguistically diverse (CALD) communities in Australia.**

The project is being led by PhD research student Téa O'Driscoll, and is supervised by Professor Remco Polman, Dr. Erika Borkoles, School of Sport and Exercise Science, Institute of Sport, Exercise and Active Living, and Dr. Lauren Banting, Institute of Sport, Exercise and Active Living, Victoria University. This research project is funded by an Australian Postgraduate Award Scholarship.

Project explanation

We would like to understand how cultural, social and psychological issues, like value and enjoyment, can affect participation in sport and physical activity by people who come from a culturally different (culturally and linguistically diverse, CALD) background who settle in Australia.

Research shows that people from CALD backgrounds can have more risks of developing 'lifestyle' diseases like Type II Diabetes or cardiovascular disease. It is also shown that taking part in sport and physical activity can sometimes stop the development of these diseases or help to cope with them. Although, many people from CALD communities do not take part in sports and physical activity as much as the native born people of the country they resettle in. We do not have a strong understanding of the exact cultural and psychosocial reasons that may explain why this is.

The project includes 3 separate studies. This study (Study 1) tries to find out how resettlement experiences, cultural and psychosocial issues affect participation in sport and physical activity in the Karen community.

What will I be asked to do?

Your participation in Study 1 will involve you being interviewed by the student researcher (Téa O'Driscoll) with an interpreter (Ida Bright) if needed, about your experiences and views about taking part in sport and physical activity. The interview may last between 1 to 1.5 hours. **Please note: to be suitable to participate in this study, you need to have lived in Australia for 5 years or less.**

You will be asked a number of questions at the interview. These include: demographic details (e.g., age), your length of time in Australia, present and past experiences of sport and physical activity, your view about sport and physical activity, the cultural meaning of sport and physical activity and your experience of resettling into Australia and how that plays a role on you taking part in sports and physical activity.

There are no right or wrong answers in the interview and you will not be judged on what you say. You can choose not to give an answer to any question if you want. Your participation in Study 1 is voluntary and you can remove your consent to take part at any time you want without giving reasons and with no penalties.

What will I gain from participating?

Your participation in this research may not give any direct benefits to you. Although, the information you give us can help us with understanding some of the experiences you go through so that services will be suitable for you and your family to be able to access sport and physical activity programs in Australia.

How will the information I give be used?

Your answers in the interview will be recorded and will be studied with the answers from other participants. All of these answers will then be put into a study for the student researcher's (Téa O'Driscoll) Doctoral thesis and your answers, including direct quotes of what you said, may be used in academic journal articles, conference presentations and book chapters. Your answers will stay strictly confidential and any identifying information you give us will be removed or changed to protect your privacy and confidentiality. We also won't use your name in publication or discussion.

What are the potential risks of participating in this project?

It may be possible that you experience some feelings of unease when talking about any experiences in your home country, unpleasant feelings or situations.

Please note:

- Your participation in the research is voluntary and you can take a break or stop being involved whenever you want to without providing a reason or explanation.
- You do not have to talk about any topic that you do not want to discuss.
- Your answers will be confidential and all of your information will be stored securely in a locked up area.

If you do feel distress from being involved in the research project you may contact a registered psychologist for a free counselling session at the Western Region Health Centre by phoning **8398 4178** or getting a **referral form** from the research team.

How will this project be conducted?

If you want to be involved in the research, please contact me by phone or email. I will contact you so that we can organise an interpreter (Ida Bright) and a time for the interview. If you want more information about the research, please contact any one of the researchers in the team on their details below.

Remember your participation is voluntary and you can withdraw your consent at any time.

Who is conducting the study?

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We thank you in advance for assisting us in this research. Any queries about your participation in this project may be directed to any of the investigators listed above. If you have any queries or complaints about the way you have been treated, you may contact the Secretary, Victoria University Human Research Ethics Committee, Victoria University, PO Box 14428, Melbourne, VIC, 8001 phone (03) 9919 4781.

Appendix C Study 1 Consent forms (English and Karen versions)

CONSENT FORM FOR PARTICIPANTS INVOLVED IN RESEARCH



INFORMATION TO PARTICIPANTS:

We would like to invite you to be a part of a study that explores cultural and psychosocial variables of sport and physical activity participation of newly arrived culturally and linguistically diverse communities in Australia.

CERTIFICATION BY PARTICIPANT

I, (Name) _____ of (Suburb)

_____ certify that I am at least 18 years old* and that I am voluntarily giving my consent to participate in interviews for the research titled **Exploring the cultural and psychosocial variables affecting participation in sports and physical activity by recently arrived culturally and linguistically diverse (CALD) communities in Australia**, a study being conducted at Victoria University by PhD candidate Téa O'Driscoll, and supervised by Professor Remco Polman, Dr. Erika Borkoles and Dr. Lauren Banting.

I certify that the objectives of the study, together with any risks and safeguards associated with the procedures listed hereunder to be carried out in the research, have been fully explained to me by Téa O'Driscoll and that I freely consent to participation involving the below mentioned procedures:

- Answering questions in an individual interview about your experiences of resettling in Australia, your cultural values and attitudes relating to sports and physical activities including previous experiences of physical activity in the home country and current experiences in Australia.
- Your participation in this stage of the research will involve you being interviewed by Téa O'Driscoll and Ida Bright as an interpreter about your experiences. The interview will take approximately 1 – 1.5 hours.

I certify that I have had the opportunity to have any questions answered and that I understand that I can withdraw from this study at any time and that this withdrawal will not jeopardise me in any way.

I have been informed that the information I provide will be kept confidential.

Signed:

Date: / /

Any queries about your participation in this project may be directed to the student researcher:

Téa O'Driscoll

tea.odriscoll@live.vu.edu.au
0430 043 334

If you have any queries or complaints about the way you have been treated, you may contact the Research Ethics and Biosafety Manager, Victoria University Human Research Ethics Committee, Victoria University, PO Box 14428, Melbourne, VIC, 8001 or phone (03) 9919 4148.

Appendix D Study 1 interview guides (1-3)

Interview Guide 1

These interviews are structured to allow participants to share their values and beliefs about sport and physical activity and share their experiences of migration, resettlement and their cultural values. Participants will be asked questions from 4 major themes which explore cultural background and migration to Australia, cultural value and attitudes towards sport and physical activity, previous and current experiences of sport and physical activity and sport and physical activities participants would like to be engaged in.

The interview consists of 4 major themes with about 5 focus questions within each theme, including possible prompting questions depending on the amount of information the participant provides.

Time

1 – 1.5 hours

1. Cultural background and migration to Australia

a. What does being Karen mean for you?

- *Has this meaning changed with moving to Australia?*
- *What's different?*

b. Do you have a religious faith, and if so, could you tell me about it please?

- *How important is religion in your life, your family and/or your community*

c. How long ago did you arrive in Australia?

d. What does it mean to you to be in Australia?

- *Are there any experiences during the process of settling in Australia which have stood out for you in a positive or negative way? **Probing question***
- *What were the major challenges you faced settling into Australia?*
- *Were there any positive outcomes of settling into Australia?*
- *Can you please describe some feelings you felt after you arrived in Australia?*

2. Cultural value and attitudes towards sport and physical activity

a. What does it mean to be healthy?

- *Could you please describe how you feel when you feel healthy?*
- *Could you please describe how you feel when you don't feel healthy?*

b. What does it mean to be healthy for your community?

- *What does it mean to not be healthy for your community?*

c. What does your typical day look like from getting up in the morning to going to bed?

- *What does healthy feel like?*
 - *How do parents ensure their children are healthy?*
- d. What does physical activity mean?**
- e. What does sport mean?**
- f. What role does sport and physical activity have in your community?**
- *Can you tell me what you think sport and physical activity means in the Australian culture?*
- g. How much do you value sport and physical activity in your life?**
- *How important is it for you and your family to regularly participate in sports and physical activities?*
 - *Can you tell me how participating in sports and physical activities makes you feel?*

3. Previous and current experiences of sport and physical activity

- a. Before coming to Australia, can you please describe the sports and physical activities you participated in, your children participated in, or you watched other community members participate in and what your thoughts are of these activities?**
- b. Can describe your experience of participating in sport and physical activity since coming to Australia?**
- *Can you tell me why you have/have not participated in sports and physical activity since coming to Australia?*
How do others make you feel when you participate in sport and physical activities in Australia?
- c. Can you tell me about the opportunities you have had to participate in sport and physical activity in Australia?**
- *Can you tell me how you found out, or how you think you can find out, about these opportunities?*

4. Sport and physical activities you would like to participate in

- a. What makes people participate in sport and physical activity?**
- *Is there anything that makes it easy / hard?*
 - *Can you tell me what kind of sports and physical activities you would like to participate in or try?*
 - *What would make a sport or physical activity appealing to you?*
 - *Can you tell me some things that prevent you participating in sport and physical activity?*
- **Can you tell me what the most important thing is for you when you are deciding to participate in sports and physical activities?**

Conclusion

The interviewer will announce the conclusion of the interview and thank the participant for their responses and their time. The interviewer will then state the day, date, time of the interview's end and interview identifying code.

Interview Guide 2

These interviews are structured to allow participants to share their values and beliefs about sport and physical activity and share their experiences of migration, resettlement and their cultural values. Participants will be asked questions from 4 major themes which explore cultural background and migration to Australia, cultural value and attitudes towards sport and physical activity, previous and current experiences of sport and physical activity and sport and physical activities participants would like to be engaged in.

After 2 interviews (15/11/12 and 16/11/12) this interview guide has been adjusted to reflect emerging themes, repetitive and irrelevant questions.

Time

1 – 1.5 hours

Cultural background and migration to Australia

	<i>Type</i>	<i>Question</i>	<i>Notes</i>
1.	Main	How long ago did you arrive in Australia?	
2.	Main	Can you please tell me what being Karen means for you?	
	Follow	Has this meaning changed with moving to Australia?	
	Follow	What's different?	
3.	Main	Do you have a religious faith, and if so, could you please tell me about it?	
	Follow	What does this mean for your health and your family's health?	
4.	Main	What does it mean to you to be in Australia?	
	Probe	What were the major challenges you faced settling into Australia?	
	Follow	Were there any positive outcomes of settling? Were there any negative outcomes of settling?	
	Follow	Can you please describe some feelings you felt after you arrives in Australia?	

Cultural value and attitudes towards sport and physical activity

5.	Main	What does it mean to be healthy?	
	Probe	Could you please describe how you feel when you feel healthy?	

- | | | |
|-----|---------------|---|
| | <i>Probe</i> | Could you please describe how you feel when you don't feel healthy? |
| 6. | Main | What does a healthy community look like? |
| | <i>Follow</i> | How important is it for your community to look like this? |
| | <i>Probe</i> | How do parents ensure that their children are healthy? |
| 7. | Main | What does your usual day look like, could you please describe it when you wake up to when you go to bed? |
| 8. | Main | What does physical activity mean to you? |
| | <i>Follow</i> | Can you give me some examples of physical activities? |
| 9. | Main | What does sport mean to you? |
| | <i>Follow</i> | Can you give me some examples of sports? |
| 10. | Main | What does sport and physical activity mean for your community? |
| | <i>Probe</i> | Can you please tell me what you think sport and physical activity means in the Australian culture? |
| 11. | Main | How much do you value sport and physical activity in your life? |
| | <i>Follow</i> | How important is it for you and your family to regularly do sports and/or physical activity? |
| | <i>Follow</i> | Can you please tell me how doing sport and physical activity makes you feel? |

Previous and current experiences of sport and physical activity

- | | | |
|-----|---------------|---|
| 12. | Main | Before coming to Australia, can you describe the sport and physical activities you did, your children did or you watched others in your community do? |
| | <i>Follow</i> | Can you tell me what you think about these activities? |
| 13. | Main | Since coming to Australia, what sports or physical activities have you done? |
| | <i>Follow</i> | Can you tell me why you have done these activities?
Can you tell me why you have not done any? |
| | <i>Probe</i> | Can you tell me how others make you feel when you do sport or physical activities in Australia? |
| 14. | Main | Can you tell me about the chances you have had to do sport and physical activities in Australia? |

Follow Can you tell me how you found out, or how you think you can find out, about these opportunities/chances?

Previous and current experiences of sport and physical activity

15. Main In your opinion, what makes people want to do sport and/or physical activity?

Probe Is there anything that makes it easier or harder for people to do sport and/or physical activity?

16. Main Can you please tell me some sports or physical activities you would like to do, or to try for the first time?

Probe What makes a sport or physical activity interesting or enjoyable for you?

Probe And, can you now tell me some things that prevent you from doing sport or physical activity?

17. Main Can you tell me what the most important thing is for you when you decide to play sport or do physical activity?

Conclusion

The interviewer will announce the conclusion of the interview and thank the participant for their responses and their time. The interviewer will then state the day, date, time of the interview's end and interview identifying code.

Interview Guide 3

These interviews are structured to allow participants to share their values and beliefs about sport and physical activity and share their experiences of migration, resettlement and their cultural values. Participants will be asked questions from 4 major themes which explore cultural background and migration to Australia, cultural value and attitudes towards sport and physical activity, previous and current experiences of sport and physical activity and sport and physical activities participants would like to be engaged in.

After several interviews post Interview Guide 2, this interview guide has been adjusted to reflect emerging themes, repetitive and irrelevant questions.

Time

1 – 1.5 hours

Cultural background and migration to Australia

<i>Type</i>	<i>Question</i>	<i>Notes</i>
1. Main	How long ago did you arrive in Australia?	
2. Main	Can you please tell me, what does being Karen mean for you?	
Follow	Has this meaning changed with moving to Australia?	
3. Main	Do you have a religious faith, and if so, could you please tell me about it?	
Follow	How does your religion impact on your health?	
4. Main	What does it mean for you to be in Australia?	
Probe	What were the major challenges you faced settling into Australia?	
Follow	Were there any positive outcomes of settling? Were there any negative outcomes of settling?	
Follow	Can you please describe some feelings you felt after you arrived in Australia?	

Cultural value and attitudes towards sport and physical activity

5. Main	What does it mean for you to be healthy?	
Probe	Could you please describe how you feel when you feel healthy?	
Probe	Could you please describe how you feel when you don't feel healthy?	

	<i>Follow</i>	How do you know when you are not healthy?
6.	Main	In your opinion, what does a healthy community look like?
	<i>Follow</i>	How important is it for you that your community looks like this?
	<i>Probe</i>	How do parents ensure that their children are healthy?
7.	Main	What does your usual day look like, could you please describe it from when you wake up to when you go to bed?
8.	Main	What does physical activity mean to you?
	<i>Follow</i>	Can you give me some examples of physical activities?
9.	Main	What does sport mean to you?
	<i>Follow</i>	Can you give me some examples of sports?
10.	Main	So what do sport and physical activity mean for the Karen culture?
	<i>Probe</i>	Can you please tell me what you think sport and physical activity means in the Australian culture?
11.	Main	How important is it for you and your family to regularly do sports and/or physical activity?
	<i>Follow</i>	Can you please tell me how doing sport and physical activity makes you feel?

Previous and current experiences of sport and physical activity

12.	Main	Before coming to Australia, can you describe the sport and physical activities you did, your children did or you watched others in your community do?
	<i>Probe</i>	So you enjoyed playing sport / doing exercise back home?
13.	Main	Since coming to Australia, what sports or physical activities have you done?
	<i>Follow</i>	Can you tell me why you have done these activities? Can you tell me why you have not done any?
	<i>Probe</i>	Can you tell me how others make you feel when you do sport or physical activities in Australia?
14.	Main	Can you tell me if you know of any opportunities you have had to do sport or exercise in Australia (e.g. programs)?

Follow Can you tell me how you found out, or how you think you can find out, about these opportunities/chances?

Sport and physical activities you would like to participate in

15. Main In your opinion, what makes people want to play sport and/or physical activity?

Probe Is there anything that makes it easier or harder for people to do sport and/or physical activity?

16. Main Can you please tell me some sports or physical activities you would like to do, or to try for the first time?

Probe What makes a sport or physical activity interesting or enjoyable for you?

Probe What needs to change in your life right now, for you to feel you can play sport and do physical activity?

17. Main When you are faced with the option of playing sport or doing exercise, can you please tell me what is the most important thing that helps you decide if you will play or not?

Conclusion

The interviewer will announce the conclusion of the interview and thank the participant for their responses and their time. The interviewer will then state the day, date, time of the interview's end and interview identifying code.

Appendix E Sample of Study 1 data analysis table and summary

December 2012 Interviews – Study 1 ANALYSIS

PARTICIPANT NAME: Canny (9 months)

Line Number	Theme / Category	Related quote / sentence	Notes
11-12		For me it is the greatest blessing. We are a big group of people who have experienced a lot in lives, our experiences are invaluable	Canny reflects on being Karen as a positive thing (a blessing), even though he has experienced a lot in his life (possibly traumatic things), yet he is still "happy and blessed" to be a Karen for "what I experienced". Maybe it is positive to Canny because all the things they've experienced, they did so as a <i>group</i> . They got through everything together, as a <i>group</i> .
13		we are a big nation but we don't have our own country	I think this is an important quote which sets some of the later topics into context. Canny reflects on the Karen (albeit a substantial group) do not have a 'country' to belong to, so in effect, they belong to the <i>group</i> . They identify themselves as belonging to the group, that's perhaps why it's a blessing to be a part of this group, this naturally strong group that stays together, stays strong even with all of the 'experiences' they've had.
23-24		However, coming to live in this country, I will have to live according to its laws, way of life and cultures.	Canny has been here for 9 months and he is reflecting on Australia's 'cultures' which he will have to live 'according to'. Canny also says that he accepted the different 'laws and way of life' in Australia and this is one of the reasons he chose to live here, perhaps it's the 'laws' in Australia which make it a 'country' – an efficiently operating country that the Karen can have?
25-26		However, I have not left behind my personalities and cultures.	I think this is quite a strong statement that Canny makes, he speaks about this process of having to

			live 'according' to different laws, different cultures, different ways of life, live in a 'real' country... yet he has not "left behind" his culture and his <i>personality</i> . His identity, his personality is so closely linked to his Karen culture, and he emphasises that although he accepts Australia as it is, he has not left behind his Karen identity.
29		even when I'm arrive in Australia, I still can practice I still can practice my culture	Taw Doh's interpretation of Canny's response was quite interesting, in that he basically says even though I am here in Australia I can still "practice my culture".
43		He is my solidity and it is valuable	Religion is valuable to Canny because it provides him with solidity, his strength. Perhaps, something which has supported him in overcoming all of the experiences that the Karen have faced?
50		Everyone on earth has a belief	For Canny, belief, faith, these are all important aspects of life – they give purpose to life and therefore, everyone on earth has a belief.
63		Your faith is definitely has got to do with your mind	According to Canny, his faith is closely linked to his psychological wellbeing, his 'mind'.
64-66		Your physical activity has got to do with your body. When we are still alive our mental and physical are related to one another, but only when we pass away they then no longer go hand in hand	For Canny, 'mind and body' go hand in hand, in balance, although they relate to different things, physical activity is to do with the body and belief, faith, this is all about 'the mind'. Canny appears to be a very spiritual person whose identity is very much linked to his culture and religion.
72-74		What we really wanted of course is... to have our own country where we could build our lives in, but due to the conflicts and the lack of freedoms and peace we didn't get what we wanted.	People need a 'country' to live in, and Canny has now accepted Australia as that country. He mentions that because of the lack of freedom and peace in his country, the Karen were not able to 'live' there. Canny chose to live in Australia because it <i>does</i> have the freedoms and peace, the laws that make it

			a proper country, somewhere he can 'live'.
76-77		therefore we accept this country as a place to settle in and to make it as ours	Canny has made Australia that place to 'live' he has made this country his... something he has never had before, he has never had a 'country' to live in and Australia provides that for him.
87		many things don't make sense to us	I think this is a great quote which puts a lot of Canny's story into perspective. He has been talking about no freedom as opposed to freedom, no laws as opposed to laws... it is all in perspective when he says "many things don't make sense to us". Things are so different and they don't make sense because they are not comfortable to Canny.
89		even if you are a legitimate victim	I wonder whether Canny is talking about personal experiences here? Interesting that he says, a 'legitimate' victim – I think the Karen have been 'legitimate' victims for a long time, and perhaps it is something that has been just associated with being a Karen – automatically a victim because you are Karen?
91-92		if we have been continuously bullied or mistreated and then we no longer put up with it and if we then have reacted to the person	Again, not sure if this is Canny speaking from experience? Shame I couldn't ask more questions, it wasn't interpreted this way from Taw Doh. Also interesting in this statement, Canny reflects on language as a barrier to safety I guess, a means of defending themselves. In Burma, defence meant running, battle, conflicts... here defence is language, so he is concerned about his safety in Australia.
94		It is so crucial for us that we should avoid conflicts at all cost	Again, I think when you contrast what survival meant in Burma with the way people defended themselves, and in Australia, it may be reiterating the fact that Canny is concerned about his and his community's safety in Australia. Language is safety, it is a

			defence mechanism here. You can't resolve issues with conflict like perhaps in Burma.
105-106		There are many positives. Firstly, the laws here. You can't live safely if you don't follow the laws here	Canny has mentioned that the laws in Australia are a challenge for him, many things 'don't make sense' to him, but he also mentions them as positive outcomes of settling in Australia. Again, there is mention of safety and it being linked to following laws (providing evidence = language). But I think perhaps the positive might relate to the laws in Australia making it a legitimate country, that he can call his own and make his, it gives him and his family a place to finally 'live'.
108-114		If you are lazy or can't work It is like they are valuing everyone whether you work or don't work As a human being they value you. Even if you don't work, as a human being they still consider an arrangement for you. You still have value	I think this group of sentences really illustrate Canny's values for working, he talks about this government that has economic benefits for people so even if they are lazy, they are 'valued'. I think the statement "It is like they are valuing everyone whether you work or don't work" shows this because he appears to be impressed with the government's ability to value individuals "even if they are unable to work". I think the comparisons lead you to believe that perhaps back home, you would only be valued, or maybe respected, if you were working, or busy, or 'not lazy'. Canny talks about the government considering arrangements for you "as a human being" – I think this might suggest that back home, people weren't 'valued' as human beings – human rights were very limited, yet here, you are 'still valued as a human being' even if you have nothing else of 'value'.
118-120		if you try hard, well you can get the job and you can get the job, not like sitting and not doing anything and then like um not doing anything and then so if you try harder you will be a valuable person here	I think Taw Doh's interpretation sheds a bit of light on the above topic too – I think the Karen value being busy and working hard. In this statement, Taw

			Doh makes it seem like to be a valuable person you need to work, and to work you need to try hard rather than "sitting and not doing anything". So I think working and work is of high value for the Karen, and Canny shows this.
125-126 128		Some people look down on you. Some people would want to take advantage of you because of your language Sometimes, due to language barrier people look down on us	Again, Canny talks about safety here, with regards to language (not being able to say anything back). Leads me to think that perhaps that experience he spoke about before may have been his personal experience. Either way, I think suggesting that he, and others he speaks about, have dealt with discrimination here. That the perception is that "some people look down on you" because of lack of language comprehension.
128-129		Those things also do hurt our feelings	Conflict in Burma causing pain and discrimination in Australia causing pain as well.
131-132		Similarly, I have been born in Australia for only six months so I won't be able to learn the language here yet.	Perhaps Canny feels he needs to justify why he hasn't learnt the language, or saying that if "they" go to live with the Karen they won't be able to speak the language either.
134-136		Some of us have people yelled and sworn at but because they could not say anything back so they just had to put up with those things. It is hurtful when those things happen to us	Again, I think the reference to language as a safety (defence) mechanism (and perhaps also, as an attacking mechanism).
151		If you talk about physical it is the physical activity and sport	For Canny, physical and mental have distinct divisions. Physical activity and sport are linked to the health of the "physical" only.
152-153		it was a small village where people played sport together, did things together, walked to school and played together	Reflecting on the collectivist nature of the Karen, perhaps going back to the point about 'belonging' to the Karen 'group'.
153-154		Also, back then for work it was harder and required more physical so it was good in keeping us active for health	Incidental physical activity occurring through everyday work activities (e.g. carrying heavy loads, farming etc.) But, they are all related to keeping the 'physical' healthy.

157-159		If you only look after you physical body, but your heart (feeling) is not good you are still not good totally. Therefore it is important that you are healthy equally in both mind and body	Albeit the activities Canny mentions helped to keep people healthy 'physically' – they were 'not good' for mental health. He emphasises again that the mind and body need to be equally balanced in health.
172-173		When I am healthy, I am happy. [Happy] Even when you face adversities, when you are healthy you are a bit more resistance and able to face the problems	Linking health with psychological wellbeing, being 'happy'. I think it's important that he mentions that even in facing adversities, when you are healthy you are more resistant. Perhaps, this might link all of the topics we spoke about earlier in the interview: being healthy = mind and body, there was lots of work to do (and sports) so the body was healthy, religion "faith" is "heart" so the faith made the mind healthy – and so the group was far more resilient and were able to overcome (survive) the 'negative experiences' of back home together, as a collective group.
180-181		there is no gaining but only losing; everything in this life a minus without addition. So for the person with poor health there are only needing and spending	Canny believes that people who have poor health are already 'losing' – everything in life is a minus.
188-189		a healthy community is a loving, united, cooperative, hard working and happy	I think some of the points spoken about before in the interview have come up here, Canny believes that a healthy community is one that is loving, united, hard-working and happy. I think mentioning hard-working is interesting because it links directly back to talking about work being valued in the Karen community.
189-191		If a community is well developed, but there are always conflicts, fighting and disunity then the people are not healthy mentally. Then they are not totally healthy	I wonder if a 'well developed' community might be referencing Australia?
191-194		a healthy community means; the environments or surrounds, the people within that community, including plants and animals, from human to things; are all in order and looking happy. So if a community is full of conflicts, fights, riots and disunity, then that community is not healthy	This 'unhealthy community' sounds like what it would have been like in Burma. Although, the Karen community are healthy I think, Canny reflects on their ability to overcome the negative experiences they have faced, their increased resilience for being

			able to do that, due to their faith their unity as a group.
203-206		Whether you can live up to those standards, it depends on each individual. The main thing is we ourselves have to try to live these ways. If you want these qualities, then you are the one responsible to live in a way of proving these qualities are right.	I think that Canny here is suggesting that each individual person who is a part of the community needs to pull their own weight to live up 'to those standards' = i.e. make a community healthy. I think the idea is that each person who is a part of the community has to take on the responsibilities and work hard to achieve a united goal = healthy communities.
213-216		Kids that come here, they see the new life styles, they want to adapt to the way of life here. We can't stop them from everything. So sometimes they would experience things and their feelings might be hurt. It is because the cultures, behaviour, tradition and habits of people here are different from ours before	Interesting that children's feelings might be hurt by 'adapting' to the life here. Canny goes on to talk about differences in cultures – but interesting that Australia's culture is threatening to Canny. Perhaps because he doesn't understand any of the systems "nothing makes sense to us" – this may be why it's a scary place where your feelings might get hurt? Again, going back to the issues of "people looking down on you" and discrimination Canny spoke about previously.
218-219		Sometimes, they do look not so healthy mentally. We could only try to let them know to the real truth, not what it seemed from the outside appearance	Mentally not being healthy = faith, 'religion is heart', Canny is concerned about the children not being healthy mentally – not being resilient, not being able to contribute to the 'healthy community' goal for Karens. Might this mean that children, as they are 'adapting' to Australia, start to lose their 'Karen-ness' (perhaps, like in other interviews, forget the language, or their commitments to their faith start to lack?). When Canny says he can tell the children the 'truth' this might go back to the statement above, in that the "cultures, behaviours, tradition and habits of people here are different from ours" – not that Australians "look down on you" because they don't like you, just different cultures?

223-226		<p>We know the government have all those laws to protect the children, but we, ourselves, know that the government doesn't love our children like we do love our children. So sometimes the rules made by the government may be different to our rules as parents.</p>	<p>Putting some things into perspective – Australia is a 'real country' with its laws and good systems, a 'developed country' but it doesn't necessarily mean that life is automatically easy here for Canny. He is aware that he as a parent, needs to take responsibility to 'guide' his children to protect them, to prepare them for life, to nurture their learning in how to contribute to and live in a healthy community.</p>
226-227		<p>Our rules are made with love, but may be different from other people, so sometimes some young people might be confused and depressed.</p>	<p>Perhaps this is talking about discipline? Yes the laws in Australia protect children ('human rights') from harsh disciplining, however Canny knows what's best and his rules are 'made with love' so maybe some young Karen people are confused or upset that their parents are rearing them in this way in comparison to their Australian friends.</p>
228-235		<p>Here, children mostly are healthy physically but the main issue would be their mental health. In saying that, as adults we are worse of compare to them. We are already too old having to start all over again, it is worse for us than them. So the children and young people will need to see the truth what it actually is for them and for us. We may be here in a new culture, but to remember to maintain our culture, tradition and manner. I mean that, when necessary to adapt, we should adapt. If we need to try, we should try. But it is our responsibility to maintain and look after our own community.</p>	<p>This is a really interesting quote. Firstly, I think Canny might be referencing faith (heart, mental health) in talking about what it is like for Karen children here in Australia. That perhaps it is easier to face these challenges than it is for him and others who are adults who have to face all of these challenges of 'starting over again'. He suggests that it is important for children to understand this, that it is the adults who have the burden of maintaining the culture, traditions and manners that they bring with them in a very new world – thinking about how difficult it is to keep (perhaps less-developed) Karen traditions in such a developed, structured and law-abiding country like Australia. This statement really strengthens some of Canny's previous statements above, his strong values in maintaining his own culture and "looking after his own community". It's interesting that he makes the acknowledgement that he may need to adapt where he should do so</p>

			(language, food, weather), but it is the responsibility of individual members of the Karen community to look after their own community, to have healthy Karen communities. This is really important to Canny – to retain his ' <i>Karen-ness</i> '.
251		I don't have anything in particular as we are now a bit too old	Interesting that at 39 Canny considers himself to be "too old" - perhaps bearing in mind that the average life expectancy at birth for males in Burma is 64.
252-254		But now, we are now aging, so every time I tried to do some physical activity it was getting harder. I am now forty years old it is not easy to do physical activity	I wonder if a life full of hard intensive labour, running, stress and a life full of 'running' constantly contributes to the difficulties in doing PA now?
254-257		In term of daily activity when I get up in the morning, I do a bit of the table tennis, the one we set up. Before, I would do all the harsh sports including boxing. Now, I could only do the gentle one like the table tennis. When I have friends to play with, I would do table tennis. But I don't do any particular sport. Sometimes, just relaxing.	Canny used to be very active with sports when he was younger and seems to make a distinction between playing sport seriously, "doing it", and 'relaxing' by playing. He plays gentle table tennis and this is relaxing, however "harsh sports" are more demanding, in that he might not associate sports like soccer with 'relaxing'.
265-266		Physical activity means physical health. It is an everyday healthy life style. If there is no physical activity, it is not really good for your body and you become tired easily	Physical activity for Canny is only about 'physical health' – if you do not do PA you 'become tired easy' (lack of energy?).
267-268		I am now getting older as well	Canny's perception that sport and PA are only for younger people, as you get older you do not participate in these activities. Perhaps a cultural thing?
269-270		However, here in Australia, during the day I am constantly doing something, and always busy doing things so I don't require to do any particular sport or physical activity	Being 'busy' is something that Canny values and he explains that because he is so busy now in Australia he doesn't 'require' sport and PA. Suggesting that Canny's understanding of the varied benefits of sport and PA participation (including perhaps the difference between 'everyday activities' that keep you busy and the conscious act of doing PA).
271-272		I come home and I am already tired from work so I don't even have	I think a lot of literature shows this – migrants and

		the energy for anything else	refugees don't have 'time' for sport and PA because they are preoccupied with work, most of the time it is labour intensive work (e.g. factory).
281		Sport means...err...firstly, it is a competition	Sport is competitive, first and foremost, for Canny. Canny participated in lots of sports when he was younger and perhaps took sports very seriously, so sport is competitive for him.
282-284		Secondly, it is for physical health. Thirdly, it is the mental. If a player hasn't got a strong mentality, he would never win the game and he would never become one of those famous sport people	Sport, unlike PA, is not only about physical health but mental health. Canny talks about the 'strong mentality' that sports players need to have to win the game. Again, I think reflecting his regular participation in sport when he was younger.
284-285		I mean that any challenge you face, you have to beat it down and win over it.	This links directly to what Canny was talking about before regarding being 'mentally healthy' (faith) and being resilient, being able to overcome barriers and challenges. Perhaps that's why sport is competitive for Canny.
306-307		But for the Karen people, we hope and aim to form sport programs for our community	Canny recognises the need for the Karen community to organise sport programs, that it is perhaps a very valuable asset to the Karen community. It will support the community to be healthy, it will provide them with both physical and mental health and it will strengthen their resilience and ability to overcome challenges with the competitive nature of sport.
309-310		We hope- actually, personally I think that there should be different sports for us such as cane ball, volley ball and so on	Different sports require different challenges, ways of overcoming barriers – perhaps provides an opportunity for the community to learn new things and navigate new challenges which will help them to settle in Australia, such a new and different country.
310-311		However it is hard as there is no one to take the leadership in starting those sports program	Perhaps no one sees value in starting these different kinds of sport programs?
311-312		I think the problems are; firstly, it is the cost. Secondly it is time	Barriers for Karen community – time and cost.
313-314		It is hard to cooperate	Perhaps differences between Australian and Karen

			cultures here – the ‘individualistic’ lifestyles they are being moulded into living as opposed to the collectivist life that they used to live in Burma.
315-319		Sport or physical activity is something that could bring harmony to a community. It is like a network. Where we came from, we organized sport programs in order to increase the networking between people. Also, for the young people to socialize and understand each other better. So where we came from, we would do sports to increase the community health and well being	Sport is still viewed in a collectivist sense for Canny – it can bring ‘harmony’ to a community (incorporating the physical and mental health, the resilience and strengthening of social capital), where Canny comes from, sport was organised to ‘increase networking between people’ because this networking is the backbone of Karen culture and society. I think it’s important that Canny talks about why this is important for young people to ‘understand each other’ almost as if sport was a mechanism of building the community’s capacity to actually work as a collective unit. This might go back to why Canny mentions that he is trying to organise sport here in Australia, and that it’s important to organise different sports so that different people get to know each other, understand each other, work together and cooperate. Maybe there’s a big difference here, when Canny says we do sports to increase “COMMUNITY” health and wellbeing – this is a more collectivist concept of sport, it is a means for nurturing that collectivist culture, ability to work with each other, to make the whole community healthy – this isn’t just about individuals being healthy, or proving how good they are at something.
349-353		Australia is excelled in some particular sports, not all sports actually. Particularly, they are excelled in water games; such as rowing, swimming and cycling. They don’t focus on all kind of sports. There are particular sports that Australians focused on. Even now, Australia doesn’t have a strong soccer team to compare or compete at international level	According to Canny, Australia tries to excel in ‘many’ sports but they still lack expertise in games like soccer, to prove their skill in soccer in international levels. Perhaps this is why Canny suggests that it might be good for Karen people to learn different sports, because there are lots of different sports that Australia is participating in and that the Karen could

			be a part of?
373-376		We didn't think physically we could compare ourselves with others, but we would train a lot. I had a friend, you may have heard of him, Wai Chai. He was training hard, he was taller and bigger physically, so he ended up becoming a champion in Burma	Physical appearance is important when Canny talks about being able to effectively participate in sports. Canny talks about his friend who became a champion in Burma, because of his advantages of being taller and bigger. This is interesting because later in the conversation Canny says he never really 'set out to be a champion' in boxing – perhaps he felt that he couldn't achieve this anyway because of his physical appearance?
378-382		You know the conflict situations in our country, with all that were happening, we weren't very hopeful to take part in the world competition; we were just playing sports for exercises, for balancing our lives, and for supporting ourselves financially. Sports benefit our health, whether you are young or old. As you know, where we came from there wasn't any opportunity like here in Australia	Canny reflects on the differences between Burma and Australia regarding opportunities to take part in 'world competitions' for sport. It's interesting that Canny says that sport was about 'balancing' lives, perhaps again going back to the 'physical and mental' aspects of sport – making a healthy community. Here Canny does state that sport benefits both young and old, however this contradicts his previous reflections on not really being part of it because he is 'getting too old'. I wonder if sport benefits older people indirectly? Perhaps the cycle of younger people, who are participating in sports and are 'learning' about collectivist ways, are learning to understand each other, and in turn this benefits older people whose cultures are passed down, who see a generation that respects and values their elders.
399-400		We entered boxing ring for betting and for fun. I never thought to do boxing for becoming the champion	Canny participated in boxing for fun and betting (means of an income – really important in the camp?).
401-403		One day he went into the ring and we didn't know what happened but his opponent was killed straight away during the fight. It became a serious issue that time and so even I never did boxing again after	I wonder whether the competitors wore boxing gloves? Not sure if they would have? Perhaps exemplifies the 'lesser-developed' sport in Burma as

		that.	opposed to a more developed and structured system here in Australia. Canny most likely experienced a traumatic and serious period during this event. This put him off boxing.
419		No I don't think so. People are much taller here	Not sure about boxing 'physical attributes' but aren't there weight bands? Interesting that the physical appearance comes up again, Canny does not think he can partake in boxing in Australia because the people are 'much taller' here.
428-429 433-434		I played soccer once or twice. But we have to have car as it was really far where we played. It was so inconvenient Since we don't have car, if we don't get picked up by friends we can't really get there to play soccer with the others	Another barrier, transportation/access and location of facilities/services.
447-449		With that...Firstly, if we do a bit of exercise it is good for our health. Secondly, when you play sport, you don't get the frustration, depression and loneliness. When you play sport you feel much happier. There is no worry in you. It also helps with staying healthy	For Canny, playing sport is about decreasing loneliness (socialisation), not being lonely, feeling happy and stress relief. There appears to be a more 'mental health' focus on sport for Canny than there is on 'physical health'.
466-471		Karen people are not missing out at all in term of sports. The Karen people who have been here for a long time are quite aware of where about the type of sports, the places you could go to play particular sports or what we could or could not participate in. It is like a network usually. If one of us knows, the whole community would know about it. [through word of mouth?] Usually we talked to each other about where to go, where to meet up and what sports are available. We would find out about the opportunity through word of mouth	This is interesting. Most of my conversations with Karen people show that many of them aren't actually playing sport, yet Canny suggests that they are not missing out in terms of sports. I wonder if this just means that Karen people know about where to play, know about what is being played, however they still aren't doing it because, perhaps as Canny mentioned above, no one is actually organising it for them? His comment also illustrates how the Karen community's networks rely on word of mouth and community closeness for awareness.
482-484		However, when someone has done something again and again, then it becomes something he always has to do. So you have to do it often to become something that you always want to do.	Canny's comments on playing sport are really interesting, it makes me wonder whether he played so much sport when he was younger that it became something he 'always wants to do', yet now he is

			getting 'too old for sport' even though he obviously still wants to play some kind of sport as he plays table tennis occasionally.
494-501		Here? I think it is hard here to play sports. But just with the Karen community only, it is not that hard. I think the Karen people had organized the contest quite a few times already for soccer games. Usually, someone will take the leadership in each area and form team of soccer players to compete with other groups of Karen people from other locations. I heard about it. It depends on the leadership and how big the community is. If the community in that area is big then the team is bigger. It is not hard for the Karen people to form teams and organized soccer matches or competitions. But with the broader the community, it is hard for us to participate with them	This is an interesting response from Canny. He says that playing sport in Australia is hard with the 'broader' community, however does say that for the Karen it is not that hard, they organise contests and teams from different communities participate in organised soccer teams. However, this depends on the leadership – who will take responsibility to organise the team? When Canny says it is not hard for the Karen people to form teams and organise matches, perhaps this links to the close-knit networks and word of mouth community systems?
517-519		I mean, to inspire them not to fall asleep and not having anything to do. It was a recreational activity for us to do it together with our younger ones. I am becoming older, forty years old now, so I can't do sport that much now. I only do it for fun with the younger one.	Canny encourages his children to participate in sport and PA, coming from a very active frame of mind himself, he also values his family time and combines 'recreational' play with time with his children. Again, he mentions that he is 40yo now and 'can't do sport that much now'. Interesting though, because he obviously does play, but perhaps he distinguishes playing soccer for 'fun' with his kids, and what he may have done in the past, perhaps for money, competitiveness, health benefits?
530-532		Now that I am older, sometimes coming back from doing sports, at night I would always suffer from ache and pain. Then I would have problem sleeping all night. It then became the problem for me to go to work for next day	Canny describes why he finds it difficult to play sport now that he is older, he 'suffers aches and pains' after playing sports, and it hinders going to work the next day.
532-534		Unlike before, working on the farm, you didn't have to worry about sleeping until whenever. But here, you can't sleep in as you would definitely get fired if you don't turn up on time	Really important quote I think which shows this difference in lifestyles in Burma and Australia. Back home, farming was the main activity which provided subsistence for families, whereas in Australia you have to have a job to work and subsist. Canny reflects on 'time' as a cultural adjustment he has had

			to make. I think this response might illustrate how these various cultural adjustments impact on sport and PA participation?
534-535		None of my family is working yet, so I need to keep my job	Canny values his job, values working and providing for his family. He cannot take time out to be doing activities which only benefit him.
547-548		Eagerness. If you are really eager to try it, then you would do it. So the passion must be within your heart	I think Canny wants to instil this passion into his children, and is making an effort to show his children the 'eagerness' that he initially had for sport.

Canny's Story

I think Canny's story is about cultural change, it's about reflecting on what Karen in Burma means and what Karen in Australia means, particularly relating to being healthy and being part of a healthy community. I think it really shows the process of acculturation, reflecting on what was Karen 'back home' and what is it here? What is Australia and how does Canny's Karen identity fit into that? Firstly, there is this discussion about being safe, safety and survival. Canny discusses what safety is in Australia (language) and I think there's a lot to think about here regarding the differences between what safety actually means in Australia as opposed to back home? I think Canny also shows us that being Karen is very important to him, and being Karen is intricately linked to a strong commitment to faith, religion, collectivist communities. I think Canny shows us that these things actually *help* him to settle here, they assist him with coping with all of these cultural changes, this acculturation process. In particular, Canny talks about his religion being his solidity, his strength and it supports his psychological wellbeing and actually assists him to deal with all of these 'fights for survival' – whether it's back home or here in Australia. His community, the Karen are very resilient, and this helps him to take on challenges that arise in settling here. This resilience comes from individuals taking the responsibility to understand each other, work together and ensure that their bodies are 'in balance' that they are healthy physically and mentally. This then makes a healthy community, one that can overcome many challenges, together.

Canny's fight for survival back home was so different to here, the concept of being safe (e.g. away from violence, or being looked down upon and discriminated against).

Subsistence for his family was also different, back home meant working on the farm – which also meant there was no structure, no systems, it 'doesn't matter when you get up

in the morning'. Yet here in Australia, you need to subsist by getting a job, working for an income which will give you food to survive. You will get 'fired' if you don't turn up on time – so this process of adjusting to Australia's concept of time, our systems and structures starts to come through in the discussion.

Canny's interview also gives me lots of insight about his concept of health and how sport and PA fit into that. Canny clearly sees sport and PA as different activities which provide him with different outcomes, PA is about physical health, whereas sport adds a more social and 'mental' aspect to health. Sport is about competitiveness, which in itself is about social dynamics, it is about 'understanding each other' and 'networking'. I think sport may be seen as a mechanism by which young Karen people learn how to actually be part of a collectivist community, so that they can be integral components of the community cog. I think Canny's emphasis on sport and his background in playing sport, particularly his attention to playing sport with his children, highlights the fact that sport is a very important aspect of his identity, being Karen. But I think sport is a different concept to him as it is for me. I think sport for him is a very spontaneous and culturally laden activity that is more about connecting and networking with each other, building resilience and community strength, rather than being about the best of the best, winning and proving one's skills in a competitive and social atmosphere, which is what sport always meant for me growing up.

CONSENT FORM FOR PARTICIPANTS INVOLVED IN RESEARCH



INFORMATION TO PARTICIPANTS:

We would like to invite you to be a part of a study that explores cultural and psychosocial variables of sport and physical activity participation of newly arrived culturally and linguistically diverse communities in Australia.

CERTIFICATION BY PARTICIPANT

I, (Name) _____ of (Suburb)

certify that I am at least 18 years old* and that I am voluntarily giving my consent to participate in interviews for the research titled **Exploring the cultural and psychosocial variables affecting participation in sports and physical activity by recently arrived culturally and linguistically diverse (CALD) communities in Australia**, a study being conducted at Victoria University by PhD candidate Téa O'Driscoll, and supervised by Professor Remco Polman, Dr. Erika Borkoles and Dr. Lauren Banting.

I certify that the objectives of the study, together with any risks and safeguards associated with the procedures listed hereunder to be carried out in the research, have been fully explained to me by Téa O'Driscoll and that I freely consent to participation involving the below mentioned procedures:

- Answering questions in individual interviews about changes in your experiences of resettling in Australia, your cultural values and attitudes relating to sports and physical activities including current experiences of sport and physical activity in Australia
- Your participation in this stage of the research will involve you being interviewed by Téa O'Driscoll and either Ida Bright or Taw Doh Moo as an interpreter about your experiences over the course of the 2013 year. Interviews at 4 months and 8 months will be about 30 minutes long each. Interviews at 2 months and possibly 6 months will be about 15 minutes long each. A final interview at 12 months will be about 1-1.5 hours long. Your participation also requires you to fill in a picture diary which details 7 days of your activity behaviours each month (a total of 12 entries for the year). In total, you will be asked to participate in approximately 6 hours within this project (including interviews and filling out the diary).

I certify that I have had the opportunity to have any questions answered and that I understand that I can withdraw from this study at any time and that this withdrawal will not jeopardise me in any way.

I have been informed that the information I provide will be kept confidential.

Signed:

Date: / /

Any queries about your participation in this project may be directed to the student researcher:

Téa O'Driscoll

tea.odriscoll@live.vu.edu.au

9919 5521

If you have any queries or complaints about the way you have been treated, you may contact the Research Ethics and Biosafety Manager, Victoria University Human Research Ethics Committee, Victoria University, PO Box 14428, Melbourne, VIC, 8001 or phone (03) 9919 4148.

ပျားနက်လီမေးသကီးတတ်တဖန် အတတ်အာဏ်လီဟုတ်အခွဲလေးအကပပ်ယုတ် လတ်ယုတ်သုတ်ညါတတ်အပူကီ အလံာ်မာပွဲလီထီ

တတ်ဂုတ်ကျိလေး ပျားနက်လီမေးသကီးတတ်တဖန်အကီ-

ပဆဲဒီးကွဲမုတ်နုလေးကက ဟဲပပ်ယုတ်လတ်ယုတ်သုတ်ညါတတ် ဘုတ်ယးဝဲ ကလုတ်နုတ်ကလုတ်ကလုတ်လေးအဟဲတုးသီသီလက်ကီ ဆီဒ်ကြေ
လံယါပူတဖန် အတတ်နုတ်လီမေးသကီးတတ်လတ်ဆဲတတ်လေး ဒီး သးတတ်ရလီမုတ်လီထီအကီတတ်လီထီဒီဒီလီထီကွဲ ဒီးနီဒီတတ်ဟူးတတ်ဂဲ၊
တဖန်အပူအဂုတ်နုတ်လီ.

ပျားနက်လီမေးသကီးတတ် အတတ်ဟုတ်တတ်အုတ်ကီ

ယ. (ယမံ) _____ လတ်ဆီဒ်လေး (ပုတ်ကနုတ်တတ်လီ(Suburb)) _____

အုတ်အသးလေးယသးနုတ်ခူကတတ်နုတ်မုတ်ဝဲ ၁၈ နုတ်* ဒီး ယအာဏ်လီဟုတ်အခွဲလေးကမေးသကီးတတ်လတ်ယုတ်သုတ်ညါတတ်ဆဲ အတတ်သံကွဲသံဒီး
လတ်ဆဲဒီးတတ်မုတ်ဝဲ "တတ်ယုတ်သုတ်ညါမေးလီတတ်ဘုတ်ယးဝဲ ကလုတ်နုတ်ကလုတ်ကလုတ်လေး အဟဲတုးသီသီ လက်ကီ ဆီဒ်ကြေ လံယါပူ တဖန်အတတ်
နုတ်လီမေးသကီးတတ်လတ် ဆဲတတ်လေး ဒီး သးတတ်ရလီမုတ်လီထီအကီတတ်လီထီဒီဒီလီထီကွဲ ဒီး နီဒီတတ်ဟူးတတ်ဂဲ၊ တဖန်အပူအဂုတ်".
ဒီးလတ်မာဝဲဆီလေး Victoria University ဖုတ်ဒီဒီ ဒီးပုတ်ဂဲဒ်ကျိမေးတတ်ခပ်လေး အဆီဒီး PhD အပတ်တက တေ့ O'Driscoll, ဒီး
ပုတ်ဆဲထွဲကွဲထွဲပုတ်ဆုတ်မုတ်ဝဲ ဖုတ်ဒီဒီသရဲဒီဒီဒီ Remco Polman, Dr. Erika Borkoles ဒီး Dr. Lauren Banting တဖန်နုတ်လီ.

ယအုတ်သးလေး တတ်မေးလီယုတ်သုတ်ညါတတ်ဆဲအတတ်ပညီတဖန်, ယုတ်ဒီး တတ်ဘုတ်ယီဒ်ဘုတ်ဘီ ဒီး တတ်ပလီပဒီ လတ်ဘုတ်ယးဒီး
အတတ်ယုတ်သုတ်ညါတတ်မေးအဂုတ်အကွဲလတ်လတ်တတ်ဟဲဖျါထီတဖန် Téa O'Driscoll တဲနုတ်ဟဲယါလေးလတ်ပုတ်ဒီး လေးယအာဏ်လီ
ဟုတ်အခွဲလေးတတ်သဘူအပူလေးယကမေးသကီးတတ်လတ်မေးအဂုတ်အကွဲ လတ်လတ်ဟဲဖျါထီတဖန်နုတ်လီ.

- တတ်ဆဲဆဲတတ်သံကွဲသံဒီးလတ်တကုတ်နုတ် ဘုတ်ယးတတ်လဲဒီဖျါအတတ်ဆီတလဲသးဝဲဆီလီတတ်ဆီဒ်မူလတ်ကီဆီဒ်ကြေလံယါပူအခါ,
နတ်ဆဲတတ်လတ်အပူ ဒီး နတ်ဟဲသုတ်ပတ်သးဘုတ်ယး တတ်လီထီဒီဒီလီထီကွဲဒီးနီဒီတတ်ဟူးတတ်ဂဲ၊ ဘုတ်ထွဲယုတ်ဒီးနတ်
လဲဒီဖျါဘုတ်ယးတတ်လီထီဒီဒီလီထီကွဲဒီးတတ်ဟူးတတ်ဂဲလတ်ဆီဒ်ကြေလံယါပူအခါတဖန်အဂုတ်ကီးလီ.
- နတ်မေးသကီးတတ်ပတ်ဟဲပတ်ပတ် Téa O'Driscoll ယုတ်ဒီး ပုတ်ကျိထဲတတ် ဆဲဒီးကြဲဒ် မူတမုတ် တီဒီဒ်မူ တကုတ် အတတ်သံ
ကွဲသံဒီးလတ်ဘုတ်ထွဲဒီးနတ်လဲဒီဖျါနုတ် 2013 အတတ်ပူဆဲနုတ်လီ. တတ်သံကွဲသံဒီးတဖန်လတ်တတ်မေးဆီဝဲ လွတ်လတ်တလဲ ဒီး
ယီလတ်တလဲနုတ် ကယဲဝဲတဘူနုတ် ၃၀ မဲနုတ်နုတ်လီ. တတ်သံကွဲသံဒီးတဖန်လတ်တတ်မေးဆီဝဲ ခဲလတ်တလဲ ဒီး ယုတ်လတ်တလဲ သုတ်
သုတ်တဖန်ကယဲဝဲတဘူနုတ် ၁၅ မဲနုတ်လီ. တတ်သံကွဲသံဒီးအကတတ်လတ် ၁၂ လတ်တလဲနုတ် ကယဲဝဲဝဲ ၁-၁.၅ နုတ်ရဲဒ်လီ.
နတ်ဘုတ်လီထီမာပွဲထီဒ်ခါကီးကီး တတ်ခွဲတတ်ဂီလတ်အလံာ်မာနုတ် လတ်ဖျါထီဒ် နုတ်တတ်ဟူးတတ်ဂဲလတ်နုတ်ဆီလတ်တလဲဘုတ်တလဲ
အကီ (ခဲလတ် တနုတ်နုတ်ဘုတ်မာပွဲဆီ ၁၂ ဘူ)လီ. ခဲလတ်တတ်ကမေးနုတ်မေးသကီးယုတ်တတ် ကယဲဝဲဝဲ ၆ နုတ်ရဲဒ်လတ်တတ်တီးကျိဒီက
တီပူ (ပတ်ယုတ် တတ်သံကွဲသံဒီး ဒီး တတ်မာပွဲတတ်ကွဲနုတ်ကွဲယါအလံာ်) နုတ်လီ.

ယအုတ်ယသးလေးယနုတ်ဘုတ်ယဲတတ်ခွဲတတ်ယတ်လတ်ကဟုတ်ယတ်တတ်ဆဲဆဲလေးယတတ်သံကွဲတဖန်အကီ ဒီးလေးယနုတ်ဟဲယါလေးယဟးထီဒ်ကွဲ
လတ်ယုတ်သုတ်ညါတတ်ဆဲအပူသုတ်ကီးကတီဒီး ဒီးယတတ်ဟးထီဒ်ကွဲနုတ်တမတ်တတ်တတ်ယါလတ်ကျိနုတ် တမံဘုတ်လီ.

တတ်တတ်ယါဖုတ်ကီး လတ်ကဟဲတတ်ဟဲဘဲယတတ်ဟုတ်ထီဒ်တတ်ဂုတ်ကျိတဖန်လီ.

ဆဲဒ်ပုတ်နုတ်လီမံ-

မုတ်နုတ်ပုတ်သီ- / /

တတ်သံကွဲတမံမဲလတ်ဘုတ်ယးနတ်နုတ်လီမေးသကီးတတ်လတ်တတ်ကျိဆဲအပူအဂုတ်မုတ်ဆီဒ်နုတ်တတ်ကအုတ်ထွဲပုတ်ယုတ်သုတ်ညါတတ်အကွဲမိတ
ကအဆီဒ်သုတ်သုတ်လီ.

Téa O'Driscoll
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9919 5521

နတ်သံကွဲသံဒီး မူတမုတ် တတ်ကအုတ်ကျိဘုတ်ယးလတ်မေးနုတ်လဲဒ်လဲဒ်အဂုတ်မုတ်ဆီဒ်နုတ်, နုတ်ဆဲဒီး Research Ethics and Biosafety
အပူဒီဒီ, ကမံးတဲး Victoria University Human Research Ethics Committee, ဖုတ်ဒီဒီ Victoria University, လတ် PO Box 14428,
Melbourne, VIC, 8001 မူတမုတ် လတ်လီထီ (03) 9919 4148 ဆဲဒ်သုတ်လီ.

INFORMATION TO PARTICIPANTS INVOLVED IN RESEARCH



You are invited to participate

You are invited to participate in a research project titled: **Exploring the cultural and psychosocial variables affecting participation in sports and physical activity by recently arrived culturally and linguistically diverse (CALD) communities in Australia.**

The project is being led by PhD research student Téa O’Driscoll, and is supervised by Professor Remco Polman, Dr. Erika Borkoles, School of Sport and Exercise Science, Institute of Sport, Exercise and Active Living, and Dr. Lauren Banting, Institute of Sport, Exercise and Active Living, Victoria University. This research project is funded by an Australian Postgraduate Award Scholarship.

Project explanation

We would like to understand how cultural, social and psychological issues, like value and enjoyment, can affect participation in sport and physical activity by people who come from a culturally different (culturally and linguistically diverse, CALD) background who settle in Australia.

Research shows that people from CALD backgrounds can have more risks of developing ‘lifestyle’ diseases like Type II Diabetes or cardiovascular disease. It is also shown that taking part in sport and physical activity can sometimes stop the development of these diseases or help to cope with them. Although, many people from CALD communities do not take part in sports and physical activity as much as the native born people of the country they resettle in. We do not have a strong understanding of the exact cultural and psychosocial reasons that may explain why this is.

The project includes 3 separate studies. This study (Study 2) tried to see how cultural and social issues that came up in Study 1 change over time (12 months) in Australia. This study will try to see how these issues actually impact on taking part in sport and physical activity in the Karen community.

What will I be asked to do?

Your participation in Study 2 will have you being interviewed by the researcher (Téa O’Driscoll) with an interpreter (Ida Bright or Taw Doh Moo) at different times through the 2013 year about any changes of the things you spoke about in your interviews in Study 1 (if you were involved in Study 1). The researcher (Téa O’Driscoll) will be asking you about things that have changed or that are new. You will be interviewed for about 30 minutes at 4 months and 8 months after your interview in Study 1, and at 2 months and 6 months we will have a quick chat with you for about 15 minutes. You will also be interviewed for one last time 12 months after your Study 1 interviews (if you were involved in Study 1) which may take between 1 to 1.5 hours. **Please note: to be suitable to participate in this study, you need to have lived in Australia for 5 years or less.**

You will be asked a number of questions at the interviews which follow the questions you answered in Study 1. These include: demographic details (e.g., age), your length of time in Australia, present and past experiences of sport and physical activity, your view about sport and physical activity, the cultural meaning of sport and physical activity and your experience of resettling into Australia and how that plays a role on you taking part in sports and physical activity.

There are no right or wrong answers in the interviews and you will not be judged on what you say. You can choose not to give an answer to any question if you want. Your participation in Study 2 is voluntary and you can remove your consent to take part at any time you want without giving reasons and with no penalties. Even if you participated in Study 1, your involvement in Study 2 is still voluntary and you do not have to participate.

You will also be asked to keep a picture diary for 12 months where you tell us the kinds of activities you did for 7 days of each month, how long you did them, how hard they were and how you felt about them. This means that you will only need to fill out the diary 12 times for the whole year. The researcher (Téa O'Driscoll) and the interpreters (Ida Bright or Taw Doh Moo) will go to community meetings and will be there to help you fill out diaries and to remind you to fill them in.

What will I gain from participating?

Your participation in this research may not give any direct benefits to you. Although, the information you give us can help us with understanding some of the experiences you go through so that services will be suitable for you and your family to be able to access sport and physical activity programs in Australia.

How will the information I give be used?

Your entries in the diary and your answers in the interviews will be recorded and will be studied with the answers from other participants. All of these answers will then be put into a study for the researcher's (Téa O'Driscoll) Doctoral thesis. Your diary entries and interview answers, including direct quotes of what you said, may be used in academic journal articles, conference presentations and book chapters. Your diary entries and answers will stay strictly confidential and any identifying information you give us will be removed or changed to protect your privacy and confidentiality. We also won't use your name in publication or discussion.

What are the potential risks of participating in this project?

It may be possible that you experience some feelings of unease when talking about any experiences in your home country, unpleasant feelings or situations.

Please note:

- Your participation in the research is voluntary and you can take a break or stop being involved whenever you want to without providing a reason or explanation.
- You do not have to talk about any topic that you do not want to discuss.
- Your answers will be confidential and all of your information will be stored securely in a locked up area.

If you do feel distress from being involved in the research project you may contact a registered psychologist for a free counselling session at the Western Region Health Centre by phoning **8398 4178** or getting a **referral form** from the research team.

How will this project be conducted?

The researcher (Téa O'Driscoll) and an interpreter (Ida Bright or Taw Doh Moo) will meet with you to give you the diary and show you how to fill it in. We will then organise a time to meet again for a quick chat 2 months after. With the help of the interpreters (Ida Bright or Taw Doh Moo) the researcher (Téa O'Driscoll) will give you reminders about the diary and the interviews and help you fill in the diary.

If you want to be involved in the research, please contact me by phone, email or the community leader or interpreter (Ida Bright or Taw Doh Moo). I will contact you so that we can organise an interpreter (Ida Bright or Taw Doh Moo) and a time for the diary meeting and interviews. If you want more information about the research, please contact any one of the researchers in the team on their details below.

Remember your participation is voluntary and you can withdraw your consent at any time.

If you want to continue to be involved in the research, please contact me by phone or email. I will contact you so that we can organise an interpreter (Ida Bright) and a time to give you the diary and assist you with filling it out. If you want more information about the research, please contact any one of the researchers in the team on their details below.

Remember your participation is entirely voluntary and you can withdraw your consent at any time.

Who is conducting the study?

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We thank you in advance for assisting us in this research. Any queries about your participation in this project may be directed to any of the investigators listed above. If you have any queries or complaints about the way you have been treated, you may contact the Secretary, Victoria University Human Research Ethics Committee, Victoria University, PO Box 14428, Melbourne, VIC, 8001 phone (03) 9919 4781.

Appendix H Study 2 interview guides

April 30min Interim Interview Version 1

Introduction

These interviews are structured to allow participants to share any changes in their values and beliefs about sport and physical activity and share their experiences of migration, resettlement and their cultural values. Participants will be asked questions from 4 major themes which follow up on themes and issues from Study 1. The questions follow up on topics of cultural background and migration to Australia, cultural value and attitudes towards sport and physical activity, previous and current experiences of sport and physical activity and sport and physical activities participants would like to be engaged in.

This study is centred upon an interpretative phenomenological framework and thus requires a full and continued analysis of Study 1 to define the direct questions which will be used. The topics and themes may change over the course of the year with analysis of previous interviews to reflect emerging and important issues for participants. Nevertheless, the topics below are anticipated to be discussed in the interim interviews of Study 2.

The interviewer will bring up themes and topics from the interview in Study 1 (if the participant was involved in Study 1) to lead into the question, e.g. "Last time we spoke, you mentioned that being Karen meant ... has your meaning of being Karen changed at all?"

The interview consists of 4 major themes as well as possible prompting questions depending on the amount of information the participant provides.

Time

30-45 minutes

5. Cultural background and migration to Australia

e. **Has your meaning of being Karen changed whilst living in Australia?**

- *What's different?*

f. **What other cultural changes you have observed in your usual habits?**

PROMPT: *Are you doing anything different from what you have been doing in your country of origin?*

g. **What did it mean to you to move and live in Australia?**

6. Cultural value and attitudes towards sport and physical activity

a. **Has the meaning of what is being healthy changed for you?**

- *What has changed about what being healthy means for you?*
- b. What does your typical day look like from getting up in the morning to going to bed?**
- c. Has the meaning of physical activity changed for you?**
- d. Has the meaning of sport changed for you?**
- e. What role does sport and physical activity have in your community?**
- 7. Previous and current experiences of sport and physical activity**
- a. Can you please tell me what sport and physical activities you have participated in your country of origin? (If involved in previous interview)**
- b. How has your usual activity patterns changed since coming to Australia?**
 - *What is it you do now that you have not done in your home country?*
 - *Why do you think your activity pattern has changed?*
- c. Are you being active with Australians? If yes, what is your experience in being active with them?**
- d. Have you encountered any new opportunities to participate in sport and physical activity in Australia?**
- 8. Sport and physical activities you would like to participate in**
- a. Has anything changed with regards to the kinds of sports and physical activities you wanted to participate in or try? (If involved in previous interview)**

Conclusion

The interviewer will announce the conclusion of the interview and thank the participant for their responses and their time. The interviewer will then state the day, date, time of the interview's end and interview identifying code.

April 30min Interim Interview Version 2 (AMENDED)

Time

30 minutes

- 1. Have you noticed any changes in your daily routine in Australia that is different from how Karen people are used to doing it?**
 - Are there any differences, if yes, what are they?
 - Can you tell me if your daily activity patterns have changed, and why you think this is?
- 2. From the previous interviews we have noticed that structure is very important to Karen people's lives...**
 - Can you please tell me a little about structures in your life?
 - What structures do you choose to create in your family, and why?
- 3. Have you noticed that the Australian culture is very focused on the individual, which seems different to Karen culture?**
 - If yes, what's your experience of this individualism?
 - How did it make you feel when on arrival you were suddenly had to organise everything in your lives (e.g. bank cards, transport, shopping, school)?
 - How different were these things in your culture?
- 4. Can you tell me a little bit more about, what does it mean for you to have so many freedoms and choices?**
 - How do you cope with all of these freedoms (and your concern for raising children) and choices?
 - What role do you think your Christian faith plays in dealing with these freedoms?
- 5. What role do you think your Karen culture plays in handling these roles?**
- 6. Can you tell me a little bit more about what health messages have you been given in the camps?**
- 7. Since your arrival to Australia, what health messages have you been given?**
- 8. How do you know which message to respond to?**
- 9. Can you tell me what your expectations were about health and exercise in Australia?**
 - How were you prepared for settlement here in Australia regarding health? (e.g. did you get information about Australia specifically in the camp, did you have a health screen when you came?)
- 10. Can you tell me a little bit more about playing sport in your home country?**
 - How did you play sport, was it organised?
 - What kind of equipment did you have and where did you get it from?
- 11. Can you tell me if you can see yourself playing sport with Australians?**
 - In competition, how do you see yourself physically in comparison with Australians?
 - What does it mean for you to play sports with Australians?
- 12. Have you heard about any new sports or health programs since we last spoke?**
 - If so, what are they and where did you hear about them?
- 13. Is there anything else you would like to talk about at this stage?**

End.

August Interview Version 1

1. DIARIES

- a. Have there been any issues or difficulties in completing your diaries?
- b. Can you tell me what is the most common activity that you have been doing in your diary?
- c. Who has a very unusual activity that they have recorded in their diary?
- d. Do you have any ideas on how to make it easier for you to keep going with filling the diary in?
- e. Do you need to be reminded to fill in the diary - would it help if I sent you an sms on your phone to remind you?

Discuss why I am collecting diary data

2. CHANGES

- a. Have there been any major changes in your life since I last spoke to you all that you would like to talk about?
- b. Is there anything else you would like to talk about before we move on?

3. ACTIVE LIFESTYLE NEEDS

- a. So far, the information I have collected shows me that many Karen people believe that being active – so, playing sports or walking children to school and working in the house for most of the day – is a positive thing and it contributes to health. Some Karen people I have spoken to believe that sport is mostly for youth, but some Karen people are still interested in playing sport when they are older.
- b. Can I get a sense of, who in this room would like to be more active than they are right now?
- c. I would like to ask all of you now, what is important for you, what do you value, in being physically active and with whom? (Do you like to be active by yourselves, with your whole family, do you like only for your children to be active?)
- d. As we will be working on a program together, I would like you to tell me what is the most important thing for you in an active program? Would you like to improve your health, have fun, learn different types of activities for example aerobic, or strengthening your muscles or sporting activities?

4. THE PROGRAM

- a. Before we talk about what kind of program you would like your family and community to be involved with, I would like to tell you about an opportunity for gymnastics and see what your thoughts are on this...

- b. So – what are your ideas for the program? What would you like to do or learn how to do? What is missing now that we can create together?
- c. What is the best time and day for you to have the program?
- d. What about children – would you like children to be involved, or should we think about having day care available?

Final Interview Version 1
DIARIES

- a. **Completion of diaries – any questions, queries, concerns**

RESETTLEMENT / CHANGE

- a. **It has been a year since we discussed some of these questions, but I just want to get a feel if anything has changed. Could you please think back on this past year and tell me about your experiences of settling into Australia and changes you have experienced during this time?**

What has been the most challenging experience in the past year and why?

What was your most memorable experience and why?

How have you coped with the changes?

What about your family?

What has made it easy / difficult to cope with the changes?

- b. **How has your and your family's life changed since your arrival to Australia?**

What cultural differences have you found between your old and new country?

Have you adopted any of these differences, and if yes, what and why?

What was the most difficult cultural change you had to deal with?

- c. **Have you noticed any cultural changes in your kids' behaviours since your arrival?**

If yes, what are they and what do you think about them?

HEALTH / PA / SPORT

- d. **How healthy do you feel right now?**

What makes you healthy?

How often do you feel healthy / ill?

If I was a child who did not know what the word health meant, how would you explain it to me?

What role do your children play in your understanding of health?

- e. **What is it that you do to keep healthy?**

How does each of those things keep you healthy?

When you're feeling ill, what helps you to feel better?

- f. **Do you or your family participate in sport/physical activity right now?**

If yes, what is it and why have you chosen to participate?

How do you think sport and PA may influence your and your family's health?

Have you ever benefited from being active? If yes, when and how?

- g. **And how important is sport and/or PA to you right now?**
How do you know what's important?

THE PROGRAM

- e. Program to be an active family program at Laverton (Show pictures)
- f. Saturdays for 2hrs. This will include, education on health, activities etc. Then the activity and time after to socialise over healthy snacks
- g. 8 weeks
- h. Funding?
- i. Community champions to teach educational component (I will prepare all information needed) – what are your thoughts?
- j. Competitive?

SPORT AND PHYSICAL ACTIVITY

DIARY

Research Project

Exploring the cultural and psychosocial variables affecting participation in sports and physical activity by Karen communities in Australia

INSTRUCTIONS

This diary should be used to record your sport and physical activities for **7 days** of each month for the year. It is best to decide on a time of each month to fill in the diary to help you remember to fill it in. For example, if you decide to record the **first week** of each month. You will only need to make 12 entries for the whole year (one for each month).

The diary documents 4 things:

1. The type - what activities you did every day for 7 days
2. The duration – how long you did each activity
3. The intensity – how hard you were working when you did the activity
4. Your mood – how you felt when you were doing the activity

To fill in the diary:

- Circle the day and date of each day at the top
- Circle or write about the activities you did each day
- Draw on the clock or write down how long you did each activity every day
- Circle, draw or write how you felt doing the activity

Help and contacts:

The student researcher (Téa O'Driscoll) together with the interpreters (Ida Bright or Taw Doh Moo) will be there to help you. Téa will go to community meetings or workshops to help you fill in the diary. You can also contact the interpreters or the student researcher directly whenever you need any help.

Téa O'Driscoll

tea.odriscoll@live.vu.edu.au

9919 5521

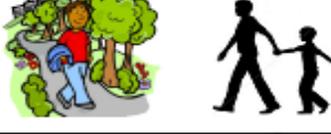


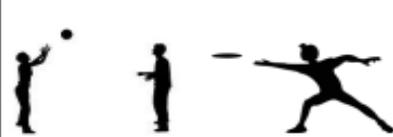
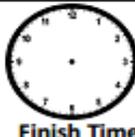
JANUARY

DAY 1

DAY Monday Tuesday Wednesday Thursday Friday Saturday Sunday

DATE 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

ACTIVITY Did you do any of these activities?	DURATION How long did you do the activity for?		MOOD How did you feel doing the activity?				
	 Start Time	 Finish Time					
	 Start Time	 Finish Time					
	 Start Time	 Finish Time					
	 Start Time	 Finish Time					
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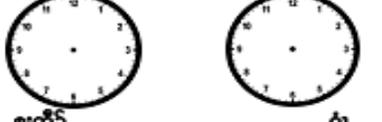
Do you want to add anything else for today?

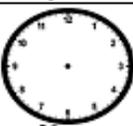
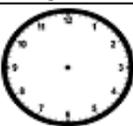
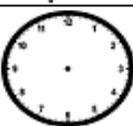
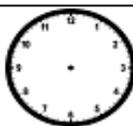
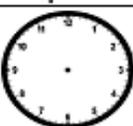
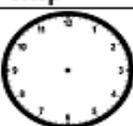
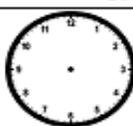
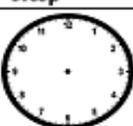
JANUARY

1 တစ်

မုန်နံ- Monday Tuesday Wednesday Thursday Friday Saturday Sunday

နံအသိ- 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

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	 <p>မးထီၣ် ဝံၤ</p>	 <p>သးစု သးတဖၣ် လီၤဘဲး သးပျံၤ တၢ်ကၢၣ်သး</p>
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တနံၤဆဲးဖျါနဆဲၣ် ဝဲၣ်ပျါဆါထီၣ်တၢ်ဆကတမံၤဖျါနကိးခါ?

Active Families, Healthy Bodies!



Bring your children and be part of a fun family active program at Laverton!

We are running a **free** family active program that is fun, healthy and educational! It is for parents and children from preschool age onwards to be active and healthy together. We will also have time for talking, socialising and learning about active lifestyles and health in Australia.

What: The program encourages families to have active and healthy lifestyles with their children together in a fun and interesting way, as well as teaching them about health

Where: It will be at the **Laverton Community Hub** which is on Railway Avenue across from the Laverton Train Station

When: Every Saturday for 8 weeks, starting on the **16th August to 4th October**. The program starts at **2pm** and finishes at **4pm** every Saturday.

The cost: It is **free** for all participants!

What you have to do: You will need to register for the program because we have limited spaces. Please get in touch with Ida Bright or Tea O'Driscoll directly to put your name down on the enrolment form. You will have to sign your consent to be part of the research program which needs to be completed **before** you start the program.

ဟံဉ်ဖိယိဖိလာအိဉ်းတၢ်ဟူးဂဲၤအါ, နီၢ်ခိက့ၢ်ဂီၤပဲၤဒီးဆူဉ်ချ့



ဟံကိးယုာ်နဖီၤန့ၢ်လီၤပဉ်ယုာ်လာဟံဉ်ဖိယိဖိတၢ်ရဲဉ်ကျဲၤလၢ အမုာ်လၢသးဖွဲၤဖဲလဲဘတၢၤအပူၤ

ပအိဉ်းဟံဉ်ဖိယိဖိတၢ်ရဲဉ်ကျဲၤကလီၤလၢပဲၤဒီးတၢ်မုာ်လၢသးဖွဲၤဆူဉ်ချ့တၢ်ကူဉ်ဘဉ်ကူဉ်သ့တဖဉ်လီၤ.မုာ်လဲၤမိၢ်ဟံ
ဒီးအဖိစးထီဉ်အိဉ်ကတီၤဆီၤကိၤသးန့ၢ်ဒီးဆူညါတဖဉ်လၢကအိဉ်းတၢ်ဟူးဂဲၤအါဒီးအိဉ်ဆူဉ်ချ့အဂီၢ်လီၤ.ပကအိဉ်း
တၢ်ဆၢကတီၢ်လၢပကတီၤသကိးတၢ်.ရ.လိာ်မုာ်လိာ်သးဒီးမၤလိသကိးတၢ်အိဉ်မူလၢပဲၤဒီးတၢ်ဟူးဂဲၤဒီးဆူဉ်ချ့လၢကီၢ်
ဆိးစံၤလိာ်ယုာ်အပူၤန့ၢ်လီၤ.

တၢ်မနုၤလဲၤ: တၢ်ရဲဉ်ကျဲၤအံၤဟ့ၣ်ဆူဉ်ထီဉ်ဟံဉ်ဖိယိဖိတဖဉ်အခံၤလၢကအိဉ်းတၢ်အိဉ်မူလၢဟူးဂဲၤအါပဲၤယုာ်ဒီးအဖိ
တပူၤယီၤလၢတၢ်မုာ်လၢသးဖွဲၤဒီးတၢ်သးဖဲအပူၤ.တဖၢ်ယီၤတၢ်သိဉ်လိာ်အဲၤသ့ဘဉ်ထွဲၤတၢ်အိဉ်ဆူဉ်ချ့အဂီၢ်န့ၢ်လီၤ.

တၢ်လီၢ်ဖဲလဲၤ: တၢ်ကမၤအီၤဖဲ **Laverton Community Hub** အိဉ်ဖဲ **Railway Avenue** ဖဲ
လဲဘတၢၤလုာ်မုာ်အူသန့အဖဲကွၢ်ယီၤတပၤန့ၢ်လီၤ.

ဆံးယံာ်လဲၤ: မုာ်ဘူဉ်အန့ၢ် (Saturday) ကိးန့ၢ်လီၤလၢစံးအတီၢ်ပူၤ.စးထီဉ်ဖဲလၢအိဉ်ကူးၤသိတုၤလၢအိးကထီဘဉ်င
သိန့ၢ်လီၤ.တၢ်ရဲဉ်ကျဲၤစးထီဉ်ဖဲမုာ်ယုာ်လီၤ.၂န့ၢ်ရီၤ:ကဝံၤဖဲဖဲဟါငန့ၢ်ရီၤဖဲမုာ်ဘူဉ်အန့ၢ်(Saturday)
ကိးဘျီၤန့ၢ်လီၤ.

တၢ်လၢာ်ဘူဉ်လၢာ်စ့ၤ : တၢ်လၢာ်ဘူဉ်လၢာ်စ့ၤလၢပူၤန့ၢ်ပဉ်ယုာ်တဖဉ်အဂီၢ်ကလီၤဖဲလီၤ.

တၢ်လၢနကဘဉ်မၤမုာ်ဖဲ: နကဘဉ်ထၢန့ၢ်လီၤနမံၤလၢတၢ်ရဲဉ်ကျဲၤအံၤအပူၤဖိဖျိလၢတၢ်လီၢ်အိဉ်းထဲပုၤစ့ၤဂၤ
အဂီၢ်အယီၤလီၤ.ဝံသးစ့ၤဆဲးကျိးအံၤတြး **Ida Bright**မုာ်ထံအိဉ်းကိ **Tea O'Driscoll** လီၤလီၤ
လၢကထၢန့ၢ်လီၤ.နမံၤလၢလံာ်ဆဲးလီၤမံၤအပူၤအဂီၢ်တက့ၢ်.နကဘဉ်ဆဲးလီၤနမံၤလၢလံာ်အာဉ်လီၤဟ့ၣ်ခွဲးအပူၤသိးကသ့ပ
ဉ်ယုာ်လၢတၢ်ယုာ်ထံမၤကွၢ်တၢ်ရဲဉ်ကျဲၤအပူၤလၢနကဘဉ်မၤပဲၤအီၤတၢ်စ့ၤနစးထီဉ်တၢ်ရဲဉ်ကျဲၤဒီးအခါန့ၢ်လီၤ.



Proudly funded by SWMML through the 2014 Laverton Community Grants Program

4. How much karate did you do before this program? (Circle *one* only)

1	2	3	4	5
None	A little	Some	A lot	A great deal

5. How much soccer did you do before this program? (Circle *one* only)

1	2	3	4	5
None	A little	Some	A lot	A great deal

6. How much did you play with your children in an active way before this program?
(Circle *one* only)

1	2	3	4	5
None	A little	Some	A lot	A great deal

7. What were the best things about being involved in this kind of program? (Tick *any* that apply to you)

- Learning new skills and abilities
- Learning to use my body in new ways
- Having fun with my children
- Feeling I belong to a group
- Having fun with others in my community group
- Meeting new people and networking
- Showing my abilities to others
- Helping my children to learn new things
- Learning more about myself and my abilities
- Having an instructor teach me how to do the activities
- Learning about healthy and active lifestyles
- Having a chance to ask questions and discuss health topics with others
- Learning about how to be active together with my family
- Anything else? _____

8. Why did you participate in this program?

9. Did the program deliver what you expected to get out of it?

10. If you could do one or more things to make this program better, what would you do?

11. How accessible/suitable did you find the Laverton Community Hub? (Tick *any* that apply to you)

- It was close and easy for me to access
- It was too far for me to get to
- It was a suitable place for the program
- I felt comfortable at the Laverton Community Hub
- I would come back to the Hub for other programs in the future
- I did not feel comfortable at the Laverton Community Hub
- It was not a suitable place for the program
- Anything else? _____

12. Was there anything that you did not like about the program?

13. What was the most important thing you gained by being involved in the program?

14. Would you be interested in attending a similar program in the future?

15. Do you intend to use the equipment/hub after the program?

If you said yes above, how will you use it and how often?
If you said no above, why?

13. Do you have any other comments or suggestions about the program, the Laverton Community Hub or anything else you would like to add?

Thank you for your responses!



Karen Family Activity Intervention – Weekly Journal

Week 1 – 16th August (Karate)

This was a hectic week! It was really difficult to get my head around what was going on, thankfully I had Lauren, Michael and Ida to help out. I had to figure out how to set up the tables, where to 'set up' for the group to come and have their discussion, the participants had to navigate which door to come through, which room was ours etc. The karate group had already started setting up, thankfully! They brought their own equipment, like mirrors, and set up this amazing area for the participants. Because this was the first session, there was lots of 'housekeeping' stuff that had to get worked out: everyone had to sign their consent, photo and PA questionnaires. Everyone had to get measured. Everyone had to get to 'know each other' (e.g. me and Ida introducing ourselves, the karate instructors etc.). I was visibly stressed, knowing that there was so many things to get done, and working out a 'rhythm' for the following weeks (e.g. when to start making snacks, when to set up the sticky board). But, it actually went extremely well.

Participants started turning up about 15min early, which was interesting because I thought they would be late. I was surprised to see so many people (and so many of my previous participants!), we ended up having 5 extra people register on the day (and Ida told me that some of the pre-registered people were on a youth event so would come next week). It was really hard to start with, although I had worked with Ida as an interpreter for a long time, it was still a large group, and there were lots of people that I didn't know, so speaking with them was difficult (I was used to 6-7 people in a group, not 36!). We started off by measuring as many as we could, seeing as most people arrived pretty early, so we had a fair bit of time. As soon as people were signed up, they were measured (we started off with all of the adults). Lauren and Michael were measuring, and Ida and I were organising the consents and forms that needed to be signed. Participants were making themselves comfortable, finding seating spots and getting familiar with the location of the toilets, so I think it was good that everyone came earlier. This happened by chance, but for next time, it should be organised that the first session is longer, so shorter activity/education time to accommodate for all of the extra time we needed at the start.

Anyway, I introduced Ida to Simon and Georgia (karate instructors) and told them to communicate through Ida, there was really no need anyway. Ida introduced them, and spoke briefly about what was meant to happen on the day, and told

them to just copy the instructors and away they went. Ida actually participated in everything (I wonder what this is about, I'm glad she did, I think it shows that she also – being involved so heavily with the development of the program – was really appreciative of having an opportunity to do this, but also because she put so much into it, to actually see it come to fruition, to participate in it, it must be exciting! She made this!), she got measured, participated in the karate, got involved. All of the participants were copying move for move from Simon and Georgia, which worked well because even though Simon and Georgia spoke English instructions (e.g. now with the left hand) the participants seemed to naturally get all of the moves. It also helped because Ida, the children, Lauren and me were doing it as well, it gave the participants who didn't speak English more people to look at and copy.

I left the karate session early to start setting up the sticky board questions. I told Ida that before participants left, I wanted them to fill this out if they could. She told them this straight after the karate session, and I get the feeling most people filled it out then, or during snack time.

Michael was in charge of snacks, he started making snacks as soon as the group started karate (because Lauren and I were already participating in karate to give the group more people to follow). Unfortunately, I didn't think to prepare things like strawberries, oranges, carrots etc. ahead of time, so he spent a long time actually preparing the snacks. We just had water bottles, various vegetables (celery, carrots) and fruit (strawberry, banana, orange) and crackers, nuts and dips. As planned in the schedule, we got the group to have snacks straight after the activity (to give them some energy etc.). The children all loved the snacks, like fully got into it big time! Almost as if the adults were going to struggle to get some food! Anyway, I didn't realise it but the group got a lot smaller when we collected everyone to sit together as a group and have a chat. We had planned to have a topic discussion about health benefits of sport/PA but it was too hectic for that, people were not used to the actual schedule, and they were a bit restless. Instead, we just did an introductory discussion, what worked, what didn't, did they enjoy it etc. Most participants loved the session, the karate was new for them and they enjoyed it. They asked what was on next week, and most people left a lot earlier than we planned on finishing. I envisioned that there would be a 'social time' after the activity when participants would get together and 'socialise' over healthy snacks. But, this didn't happen. I don't know why, I guess I thought they would naturally just chill out (which is what usually happened at the council workshops but also in my interviews) but I got the sense that this was different. There were children involved, and I guess bearing in mind, it finished around 4pm which is Karen dinner time. I think parents were keen to get home to start preparing dinner, to get the kids organised for the night. Also, this was an unfamiliar space, it was brand new for everyone, whereas in the interviews it was at their house, and the other council workshops were at the church or established

community spaces etc. I think they don't 'own' this space yet, I think that's what makes it somewhat like, get in and get out. I wonder if this will change over the weeks?

Keep an eye on that 😊

INFORMATION TO PARTICIPANTS INVOLVED IN RESEARCH



You are invited to participate

You are invited to participate in a research project titled: **Active families, healthy bodies: A new way to engage Karen refugees in a sport and physical activity intervention.**

This project is being conducted by a student researcher, Tea O'Driscoll, as part of a PhD degree at Victoria University, and is supervised by Professor Remco Polman, Dr. Erika Borkoles and Dr. Lauren Banting from the Institute of Sport, Exercise and Active Living at Victoria University. Ida Bright will also be involved in this project as a community liaison and a Karen/ English interpreter. This project is funded by an Australian Postgraduate Award Scholarship.

Project explanation

We have designed a physical activity program with Karen community members and leaders and we would like to run this program and see whether it was a good way to engage Karen families to be active.

There is research that shows that people from culturally different backgrounds can have more risks of developing 'lifestyle' diseases like Type II Diabetes or heart disease. It is also shown that taking part in sport and physical activity can sometimes prevent these kinds of diseases or help people to cope with them. But, many culturally different communities in Australia are not involved in active lifestyles as much as Australian born people. We did research with Karen refugees to find out how they feel about participating in sport and physical activity and we found that many families struggle with time and finding an activity that is suitable for them. That is why we have designed this program with Karen community members to help families be active together.

This research project will run the family activity program and we will assess if the program is successful and if the participants enjoyed it and got value out of it. The program will involve both parents and children.

What will I and my children be asked to do?

By being involved in this project you and your children will be attending regular family active sessions which are held each Saturday at the Laverton Community Hub for 8 sessions. The sessions will be attended by the student researcher (Tea O'Driscoll) an interpreter (Ida Bright) and an activity instructor. Each session will take approximately 1-1.5hrs. The sessions will begin with a short (approx. 15min) discussion on different health topics, like the benefits of physical activity for health. Then we will have a fun filled family games session together (adults and children) with help from an instructor. The types of activities will be different each week, but they might include things like exercising through play, jumping, climbing, dancing, obstacle courses and other physical activities based on fun. All of the activities will be targeted at beginner and

children's levels so they will not be challenging or difficult. After each session, there will be time to talk to each other, socialise and discuss any other health related topics people raise or want to discuss.

Before we start the program, you will be asked to have some simple measurements taken. This will include your weight, your waist measurements or some simple tests on flexibility. At the end of the program, you will be asked to have these same measurements taken again. Also at the end of the program, we will be asking you to respond to some questions about how you enjoyed the program and explore your suggestions on ways that we can make it better. Six (6) months after the end of the last session, we will contact you again so that we can check how you and your family have been during this time. This will also involve another set of measurements as well as a quick exchange of ideas about what types of activities you are doing now and the role of the program in your lifestyle activities now.

Your involvement in the program evaluation is voluntary and you do not have to do it. You can also choose not to give an answer to any question we ask at this time. You will not be judged on what you say about the program if you are involved in the evaluation.

What will I and my children gain from participating?

By being involved in this research you can benefit directly from educational information about topics to do with health and nutrition, as well as being involved in an organised activity with your children each week. You can also gain benefits from being involved in a social program with other Karen community members. You may be able to learn about different activities that you can do with your children at home as well as how to increase your health benefits by being involved in physical activity. Your participation in the program will also help us to understand the best way we can work together with Karen families, which will support them to be involved in activities in Australia.

How will the information I give be used?

You will give us measurements before the program (first), 8 weeks after the program (second) and then again 6 months after the last measurement was taken (6 month follow up). Your first and second measurements will just be used as a baseline to see if anything has changed from when you started the program to when you finished. The 6 month follow up program will be used to see if anything has changed a long time after the program. Your responses in the evaluation of the program will help us to understand whether you liked the program and if it was really valuable for Karen families. This information will help us to create suitable physical activity programs in the future. We will also be taking note of how many people attend each session, and this information is just so that we can keep track of how well attended the program has been over the 8 weeks. All of the information you give us will stay strictly confidential and any identifying information you give us will be removed or changed to protect your privacy and confidentiality. Your information may also be used for publications and public discussions about the program, but we will not use your name or any other identifying features in doing this.

What are the potential risks of participating in this project?

In your involvement in this program, it may be possible that you have an injury caused by participating in the activity program. We have put in place some measures which will help you should you suffer any risks:

- Your participation in this research is **voluntary** and you can take a break or stop being involved whenever you want to without providing explanations and there will be no consequences to you

- First aid trained staff will be available at every session in case there is a need to apply emergency aid
- All of the activities are targeted at beginner and pre-school level so your risk of injury from the activities is low
- You do not have to answer or discuss any topics that you do not want to discuss in the evaluation

If you feel any distress from being involved in the research project, you can access counselling support from the Western Region Health Centre (WRHC) free of charge and speak with a registered psychologist by phoning **8398 4178** or by asking the student researcher (Tea O'Driscoll) for a **referral form**.

How will this project be conducted?

The student researcher (Tea O'Driscoll) and the interpreter (Ida Bright) will attend all of the sessions. Each session will begin with a Karen community member who will be teaching participants about different health topics using a teaching guide that Tea O'Driscoll will have prepared. After this, the activity instructor will use body language and with the help of the interpreter, will show you and your children how to do each activity. The activity sessions will last for approximately 40min. The sessions will end with time for socialising and discussing any health related topics with the student researcher and interpreter with some refreshments.

At the end of 8 sessions, we will ask you to tell us your experience of the program to evaluate it, if you would like to tell us. At the same time, we will ask you if we can contact you again in 6 months to do a 6 month follow up measurement. If you agree for us to contact you, 6 months after the last session we will arrange a time and date that is suitable for you to do the 6 month follow up.

Remember your participation is voluntary and you can withdraw your involvement in this program any time you want to.

If you would like to be involved in the program, you will need to confirm your consent before starting the session. Please contact the interpreter (Ida Bright) or the student researcher (Tea O'Driscoll) by phone or email. We will contact you so that we can give you all the details and have you confirm your consent to participate in the research. If you would like more information about the research, please contact me or any of the other researchers in our team on their details below.

Your involvement in this program is voluntary and even if you have been involved in any of our previous research projects, you do not have to be involved in this program.

Who is conducting the study?

Téa O'Driscoll
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Ida Bright

Prof. Remco Polman
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Any queries about your participation in this project may be directed to the Chief Investigator listed above. If you have any queries or complaints about the way you have been treated, you may contact the Ethics Secretary, Victoria University Human Research Ethics Committee, Office for Research, Victoria University, PO Box 14428, Melbourne, VIC, 8001, email researchethics@vu.edu.au or phone (03) 9919 4781 or 4461.

CONSENT FORM FOR PARTICIPANTS INVOLVED IN RESEARCH



INFORMATION TO PARTICIPANTS:

We would like to invite you to be a part of a family physical activity program that encourages Karen families to adopt healthy and active lifestyles. The program is called 'Active families, healthy bodies: A new way to engage Karen refugees in a sport and physical activity intervention'. We would like to see if a program that has been designed with Karen community members is suitable for Karen families to be active with their families. The program will be 8 weeks long and will run every Saturday at the Laverton Community Hub for approximately 1-1.5hrs. It will involve a brief discussion about different health topics, an activity involving adults and children together that is based on fun and play, and time afterwards to socialise together.

There may be a risk of hurting yourself while doing the activity; however the activities are targeted at beginners and pre-schoolers so this risk is very small.

CERTIFICATION BY SUBJECT

I, (Please Print) (First Name) _____ (Last Name) _____ of (Suburb you live in)

certify that I am at least 18 years old and that I am **voluntarily** giving my consent to participate in the family physical activity program for the research titled **Active families, healthy bodies: A new way to engage Karen refugees in a sport and physical activity intervention**, which is a study being conducted at Victoria University by a PhD student researcher, Tea O'Driscoll, and supervised by Professor Remco Polman, Dr. Erika Borkoles and Dr. Lauren Banting.

I certify that the objectives of the study, together with any risks and safeguards associated with the procedures listed here to be carried out in the research, have been fully explained to me by **Téa O'Driscoll** and that I freely consent to participation involving the below mentioned procedures:

- Having my basic health measurements taken (e.g. weight and waist measurements) before (first), straight after (second) and 6 months after the program (6 month follow up)
- Participating regularly in a physical activity for 8 weeks with my children for 1-1.5 hours of activity per week
- Answering questions relating to the evaluation of the program at the end of 8 weeks either by filling out an evaluation questionnaire or by talking about it with the interpreter and the researcher writing down the answers,
- Participating in a 6 month follow up where my measurements will be taken again and having a quick discussion with the researcher about what activities my family have been doing since the program

- In total, I will be asked to participate in the project for approximately 14hrs over the course of 8 months (2 months of program and 6 months for follow up)

I agree for my child/children to also participate in this research under my supervision. I certify that during the research project my children are under my guidance and it is my responsibility to supervise them during the program.

The names and dates of birth for the child/children participating in this program with me are (Please print names):

1. (First Name)	_____	(Last Name)	_____	(Date of Birth)	_____
2. (First Name)	_____	(Last Name)	_____	(Date of Birth)	_____
3. (First Name)	_____	(Last Name)	_____	(Date of Birth)	_____
4. (First Name)	_____	(Last Name)	_____	(Date of Birth)	_____

Young participants (where appropriate) should co-sign the parental consent form to indicate that they have been informed about the research and agree to participate.

1. (Signature)	_____	(Date)	_____
2. (Signature)	_____	(Date)	_____
3. (Signature)	_____	(Date)	_____
4. (Signature)	_____	(Date)	_____

I certify that I have had the opportunity to have any questions answered and that I understand that I can withdraw from this study at any time and that this withdrawal will not jeopardise me in any way.

I have been informed that the information I provide will be kept confidential.

Please sign: _____

Date: / /

Any queries about your participation in this project may be directed to the student researcher:

Téa O'Driscoll
tea.odriscoll@live.vu.edu.au
 9919 5521

If you have any queries or complaints about the way you have been treated, you may contact the Research Ethics and Biosafety Manager, Victoria University Human Research Ethics Committee, Victoria University, PO Box 14428, Melbourne, VIC, 8001 or phone (03) 9919 4148.

Appendix O Study 3 Physical activity readiness questionnaire (English and Karen versions)

PHYSICAL ACTIVITY READINESS QUESTIONNAIRE

Starting to become more active is usually very safe for most people. Some people should check with their doctor before they start becoming more physically active. If you are not sure, please answer the seven questions below. If you are between the ages of 15 and 69, these questions will tell you if you should check with your doctor before you start becoming more physically active. If you are over 69 years of age, and are not used to being very active, it is best to check with your doctor first.

- | | | | |
|----|--|-----|----|
| 1. | Has your doctor ever said that you have a heart condition and that you should only do physical activity recommended by a doctor? | YES | NO |
| 2. | Do you feel pain in your chest when you do physical activity? | YES | NO |
| 3. | In the past month, have you had chest pain when you were not doing physical activity? | YES | NO |
| 4. | Do you lose your balance because of dizziness or do you ever lose consciousness? | YES | NO |
| 5. | Do you have a bone or joint problem that could be made worse by a change in your physical activity? | YES | NO |
| 6. | Is your doctor currently prescribing drugs (for example, water pills) for your blood pressure or heart condition? | YES | NO |
| 7. | Do you know of any other reason why you should not do physical activity? | YES | NO |

If you answered YES to one or more questions, please let the Victoria University researcher know because there may be a need for you to speak with your doctor before taking part in further exercise.

နို်မိတ်ဟူးတၢ်ဂၢ်တၢ်ကတိၤသးအတၢ်သံကွၢ်သံဒီး

တၢ်စးထီၣ်အိၣ်ဒီးတၢ်ဟူးတၢ်ဂၢ်အံၤမ့ၢ်တၢ်လၢအပူၤဖျဲးအဒိၣ်ကတၢၢ်လၢပုၤအါဂၢၢ်န့ၣ်လီၤပုၤတၢ်နီၤကလိၣ်မၤလီၤတၢ်တၢ်ဒီးအကသံၣ်သရၣ်တၢ်တၢ်စးထီၣ်မၤန့ၣ်မိတ်ဟူးတၢ်ဂၢ်ဒီးအခါန့ၣ်လီၤမ့ၢ်တၢ်လီၤတၢ်ဘၣ်န့ၣ်တၢ်ဝံၤသးစ့ၤဖျဲးအတၢ်သံကွၢ်န့ၣ်ဖျၢၣ်ဒီးအဖီလၢအသီးအံၤတၢ်ကွၢ်န့ၣ်မ့ၢ် ၁၅ တၢ် ၆၈ န့ၣ်အဘၢၣ်စၢၤန့ၣ်တၢ်သံကွၢ်တဖၣ်အံၤကတၢၢ်ဘၣ်န့ၣ်လၢန့ၣ်လီၤမၤလီၤတၢ်ဒီးန့ၣ်သံၣ်သရၣ်ဖဲတၢ်တၢ်စးထီၣ်မၤန့ၣ်မိတ်ဟူးတၢ်ဂၢ်ဒီးအခါလီၤ န့ၣ်ဒီးမ့ၢ်တၢ်မၤညီၣ်န့ၣ်မိတ်ဟူးတၢ်ဂၢ်အါလၢအပူၤကွၢ်တၢ်ဝံၤ အဂၢၢ်ကတၢၢ်လၢန့ၣ်မၤလီၤတၢ်ဒီးန့ၣ်သံၣ်သရၣ်န့ၣ် လီၤ.

- | | | | |
|----|---|------|----------|
| 1. | န့ၣ်သံၣ်သရၣ်တဲၤညီၣ်န့ၣ်လၢန့ၣ်ဒီးသးတၢ်အိၣ်သးလၢန့ၣ်မၤန့ၣ်မိတ်ဟူးတၢ်ဂၢ်ထဲၣ်ကသံၣ်သရၣ်န့ၣ်လီၤန့ၣ်ဒီးအသီးစ့ၤစါ. | မ့ၢ် | တမ့ၢ်ဘၣ် |
| 2. | ဖဲန့ၣ်မိတ်ဟူးတၢ်ဂၢ်တဖၣ်အခါန့ၣ်တၢ်ဘၣ်န့ၣ်သးန့ၣ်ပုၤအါစ့ၤစါ. | မ့ၢ် | တမ့ၢ်ဘၣ် |
| 3. | လၢလၢအပူၤကွၢ်ဖဲန့ၣ်မိတ်ဟူးတၢ်ဂၢ်အခါန့ၣ်တၢ်ဘၣ်န့ၣ်သးန့ၣ်ပုၤအါစ့ၤစါ. | မ့ၢ် | တမ့ၢ်ဘၣ် |
| 4. | န့ၣ်အံၤထၢၣ်တၢ်ကွၢ်ဘၣ်ဒီးဖျိန့ၣ်မ့ၢ်မုၢ်တမ့ၢ်သးပုၤန့ၣ်သးဒ်န့ၣ်အိၣ်တၢ်ဘျီဘျီစ့ၤစါ. | မ့ၢ် | တမ့ၢ်ဘၣ် |
| 5. | န့ၣ်မုၢ်တမ့ၢ်စ့ၤအိၣ်အတၢ်ဂၢ်လၢကန့ၣ်အါထီၣ်ဒီးဖျိန့ၣ်မိတ်ဟူးတၢ်ဂၢ်အိၣ်တဲၤအသးအယီၤအိၣ်စ့ၤစါ. | မ့ၢ် | တမ့ၢ်ဘၣ် |
| 6. | န့ၣ်သံၣ်သရၣ်န့ၣ်လီၤဟ့ၣ်အါန့ၣ်ကသံၣ်(အဒိ ထံကသံၣ်ဖျၢၣ် water pills)
ဖဲတၢ်ဂီၢ်ခါအံၤလၢန့ၣ် သ့ၣ်ထံအါစ့ၤမုၢ်တမ့ၢ်သးတၢ်အိၣ်သးအကီၢ်အိၣ်တမံၤမံၤစ့ၤစါ. | မ့ၢ် | တမ့ၢ်ဘၣ် |
| 7. | န့ၣ်ညါတၢ်ဂၢ်အဂၢၢ်လၢန့ၣ်ဘၣ်မၤန့ၣ်မိတ်ဟူးတၢ်ဂၢ်အကီၢ်အိၣ်တမံၤမံၤစ့ၤစါ. | မ့ၢ် | တမ့ၢ်ဘၣ် |

န့ၣ်မိတ်ဟူးတၢ်ဂၢ်တၢ်သံကွၢ်အဖီလၢအသီးအံၤမ့ၢ်တၢ်မၤညီၣ်န့ၣ်မိတ်ဟူးတၢ်ဂၢ်အါလၢအပူၤကွၢ်တၢ်ဝံၤသးစ့ၤဖျဲးအတၢ်သံကွၢ်န့ၣ်ဖျၢၣ်ဒီးအဖီလၢအသီးအံၤတၢ်ကွၢ်န့ၣ်မ့ၢ် ၁၅ တၢ် ၆၈ န့ၣ်အဘၢၣ်စၢၤန့ၣ်တၢ်သံကွၢ်တဖၣ်အံၤကတၢၢ်ဘၣ်န့ၣ်လၢန့ၣ်လီၤမၤလီၤတၢ်ဒီးန့ၣ်သံၣ်သရၣ်သ့ၣ်သ့ၣ်တၢ်တၢ်စးထီၣ်မၤန့ၣ်မိတ်ဟူးတၢ်ဂၢ်ဒီးအခါလီၤ န့ၣ်ဒီးမ့ၢ်တၢ်မၤညီၣ်န့ၣ်မိတ်ဟူးတၢ်ဂၢ်အါလၢအပူၤကွၢ်တၢ်ဝံၤ အဂၢၢ်ကတၢၢ်လၢန့ၣ်မၤလီၤတၢ်ဒီးန့ၣ်သံၣ်သရၣ်န့ၣ် လီၤ.

Appendix P Study 3 Measurement record sheet



Active Families, Healthy Bodies!

PARTICIPANT MEASUREMENTS

NAME _____

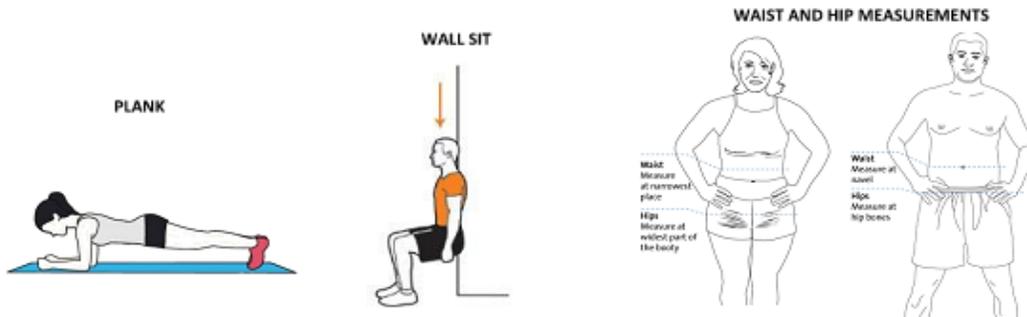
AGE _____

16th AUGUST 2014

4th OCTOBER 2014

4th APRIL 2015

	16 th AUGUST 2014	4 th OCTOBER 2014	4 th APRIL 2015
HEIGHT			
WEIGHT			
HIP (CM)			
WAIST (CM)			
BMI			
WAIST TO HIP			
PLANK (MIN)			
WALL SIT (MIN)			



WHAT IS BMI?

Body Mass Index is a number that health professionals sometimes use to classify if people are underweight, healthy weight, overweight or clinically obese. People who are overweight or obese are at higher risks of developing serious health problems like type 2 diabetes, heart diseases and high blood pressure.

HOW TO CALCULATE BMI?

Your weight in kilograms is **divided** by your height in meters **times 2**:

Your weight: (example, 75)

Your height (example, 1.7m)

$$1.7 \times 1.7 = 2.89$$

75kg **divided by** 2.89 = **BMI of 25.95**

BMI CLASSIFICATIONS (International)

Less than 18.5

A BMI of less than 18.5 may mean that you are underweight.

18.5 – 25

A BMI of 18.5-25 may mean that you are a healthy weight for your height.

25 – 30

A BMI of 25-30 may mean that you are slightly overweight.

Over 30

A BMI of over 30 may mean that you are overweight.

WHAT IS WAIST TO HIP RATIO?

More fat stored around our stomachs may cause more health problems than carrying more fat around other areas, like our thighs.

HOW TO CALCULATE WAIST TO HIP RATIO?

Divide the waist measurement by the hip measurement.

A ratio of 1.0 or more in **men** or 0.85 or more in **women** may mean that you are carrying too much weight around your middle. This may put you at more risk of diseases linked to obesity, like type 2 diabetes or heart disease.

Appendix Q Study 3 Full 8 week schedule

Active families, healthy bodies – Laverton Community Hub - PROGRAM

Week	Date	Room	1:30 – 2:00	2:00 – 2:15	2:15 – 3:15	3:15 – 3:45	3:45 – 4:30
1	16/08	Function	Set up mats for Karate	Introductions, height, weight, measurements	Karate session (Laverton Samurai)	Discussion/Q&A – Why is PA good for you? (TEA O'DRISCOLL)	Pack up – must be out by 4:45
2	23/08	Function	Set up mats for Karate	Chat – Introduction to active living, PA recommendations, what is active living	Karate session (Laverton Samurai)	Discussion/Q&A – What can you expect from being active? (TEA O'DRISCOLL)	Pack up
3	30/08	Multipurpose	Set up play equipment (fruit salad, skipping, grip ball)	Chat – Lifestyle diseases in Australia, how PA relates to them	Play based (Matt Russell and Olivia Kosorog, VU students)	Discussion/Q&A – Healthy eating, healthy food, healthy balanced life (RENSKE DIJKHUIS)	Pack up
4	06/09	Function	Set up for soccer	Chat – Being active as a family, activity with children and why it's good for them	Soccer (TBC / Soccer skills basics)	Discussion/Q&A – Diabetes (DR. CHRIS SHAW)	Pack up
5	13/09	Function	Set up mats for Golf Clinic (long rectangular shape)	Chat – Sports in Australia, sporting clubs, grounds etc.	Golf Clinic (Ben Weatherly)	Discussion/Q&A – Practical nutritional workshop, sugar and sugary drinks (diabetes, weight loss) (RENSKE DIJKHUIS)	Pack up
6	20/09	Function	Help Gymnastics Club to set up equipment	Chat – Health issues in Australia, preventative health behaviours	Gymnastics (Werribee Gymnastics Club – Kate)	Discussion/Q&A – The 'Karen diet' (RENSKE DIJKHUIS)	Pack up – must be out by 4:45
7	27/09	Function	Set up for soccer and volleyball in the park	Chat – Using the centre and the equipment by yourself	Game Day – Soccer, Volleyball (Shaws Reserve, Laverton)	Discussion/Q&A – Practical nutritional workshop, healthy children's snacks (RENSKE DIJKHUIS)	Pack up
8	04/10	Function	Set up play equipment (all equipment – free to play)	Chat - Anything the community wants	Play based (Matt Russell and Olivia Kosorog, VU students)	Discussion/Q&A – General, wrap up program and how to continue playing together (TEA O'DRISCOLL)	Pack up

Appendix R 6 Month follow up semi-structured interview schedule

The program

1. Can you tell me what you felt about the program you were in?
2. What did you like the most about it?
3. Was there something you did not like?
4. Can you remember anything you learnt from the program?
Why did you remember that?

Sport / pa since program

1. Since the program, have you done more, less or the same amount of sport/PA that you did before the program?
Why do you think that is?
2. Have any of your sports or activity patterns changed since the program?
3. Have you used any of the equipment here for sport/PA?
Why?
Did you know about it?
Do you want to use it / how is it best to use?
4. Has that program changed any sport/PA behaviour for you? Do you do anything different from before the program?
5. What kind of program would you like for the future here at the Hub?
6. Do you have any feedback or suggestions for the Council and/or the Hub?

Social aspects

1. Do you still catch up with these people frequently in a social way?