

# Having Enough Cultural Food? A Qualitative Exploration of the Experiences of Migrants in a Regional Area of Australia

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Received: November 6, 2014 Accepted: November 26, 2014 Online Published: December 9, 2014

doi:10.5539/jfr.v4n2p16

URL: <http://dx.doi.org/10.5539/jfr.v4n2p16>

## Abstract

The notion of food security encompasses the ability of individuals, households and communities to acquire food that is healthy, sustainable, affordable, appropriate and accessible. Despite Australia's current ability to produce more food than required for its population, there has been substantial evidence demonstrating that many Australians struggle to feed themselves, particularly those from a cultural and linguistically diverse (CALD) background. This qualitative phenomenological study investigated the experiences of food security among migrants in a regional area of Australia (Tasmania).

33 semi-structured interviews were conducted with Tasmanian migrants. The interviews were analysed thematically using Nvivo 10.0 and three main themes emerged: (1) migrant's experiences of food security in Tasmania; (2) the factors that influence migrant food security in Tasmania; and (3) acculturation strategies. Participants were satisfied with their current food security in Tasmania but they still encountered some challenges in the availability, accessibility and affordability of healthy and cultural food. Factors that influenced their food security were educational background, the language barrier, socioeconomic status, geographical isolation, and their cultural background. Migrants managed to adapt to the new food culture by using different acculturation strategies.

Migrants residing in Tasmania encounter a diverse number of challenges pertaining to food security and use different food security strategies while acculturating to the new environment. These findings may inform other migrant communities in Australia, relevant non-government organisations and government departments and suggest strategies to address food security challenges among migrants.

**Keywords:** migrants, food security, qualitative, Tasmania, Australia, acculturation

## 1. Introduction

Diverse cultures have been noted to enrich the quality of life in Australia, particularly enriching Australian food culture. In the last decade, there has been an increase in the number of people migrating to and settling in Australia. According to the Department of Immigration and Citizenship (DIAC), it is forecasted that there will be an increase in the number of persons migrating and settling in Australia from 237 300 in 2013 to over 250 000 in 2017 (DIAC, 2013). The growth of the migrant population in Australia has prompted government and society to pay more attention to migrant health and well-being in Australia. Migrants bring their own food culture when moving to Australia; and they bring their knowledge and skills about food production, preparation and consumption. However, these skills and knowledge may have an impact on their food security as they enter a new country and cultural environment (Postiglione, 2010; Sanou et al., 2014). This condition may be exacerbated among migrants living in more regional areas where cultural awareness, sensitivity and specific cultural foods may be limited. Thus, it is important to have an insight on the barriers and strategies employed by migrants in combating the challenges they face when they live in the host country.

Food security is defined as the ability of individuals, households and communities to acquire food that is sufficient, healthy, safe, reliable, sustainable, affordable, acceptable and accessible (Tasmanian Food Security Council, 2012). In this sense, food availability, accessibility and utilisation are interconnected to food security

(FAO, 2005): the quality of food must be sufficient and the food must be both physically and economically accessible over the long term. Additionally, the consumption of nutritious food is an important factor contributing to overall health, again making it important to ensure food quality and quantity is stable within a society.

### *1.1 Food Security Among the Culturally and Linguistically Diverse Group*

Previous studies have identified that people from culturally and linguistically diverse (CALD) groups are more prone to food insecurity (Burns, 2004; Crush, 2013; Rosier, 2011; Strategic Inter-Governmental Nutrition Alliance, 2001; Tasmanian Food Security Council, 2012). When comparing migrant and non-migrant households, migrant households were identified as experiencing lower food security than non-migrant households (Crush, 2013). According to the Tasmanian Food Security Council (TFSC) (2012), the prevalence of food insecurity is about 5% of the general population in Tasmania. This figure has been shown to increase to 10% (one in ten households) as socio-economic disadvantage increases. Thus, food insecurity has a direct relationship with the finances or buying power of the individual or family.

There are other reasons why people experience food insecurity: a lack of other resources apart from finances, a lack of transport, a lack of access to affordable nutritious food, geographical isolation, and poor motivation or knowledge concerning a nutritious diet (Rosier, 2011). For CALD groups, there is an additional layer of complexity that is experienced due to a transition in diet when resettling (Strategic Inter-Governmental Nutrition Alliance, 2001). People who have recently relocated to Australia may not have nutritional education about food available in the local area and supermarket; food which may dramatically vary from what was available in their country of origin. Studies have shown that the transition in diet can have diverse effects on migrant health. For example, Burns (2004) demonstrated the transition of diet practices of Somali women after migration to Australia led to obesity due to higher consumption of high-dense energy food.

### *1.2 Barriers That Influence Migrants' Food Security*

Barriers that influence the food security of migrants have been identified in a number of studies and include: the language barrier, length of stay in the host country, socioeconomic status, geographical location and cultural factors (Carter, Lanumata, Kruse, & Gorton, 2010; Hadley, Zodiates, & Sellen, 2007; Tsang, Ndung'u, Coveney, & O'Dwyer, 2007; Vahabi & Damba, 2013). The first barrier (language and communication) can be an issue for non-English speakers settled in an English speaking country (Vahabi & Damba, 2013). Communication is a challenge and language differences may hinder individuals from accessing food related information and services in the community. Additionally, it has been shown that migrants who have been residents for longer in the host country have lower incidences of food insecurity (Hadley et al., 2007). The longer the time migrants spend in the new country, the more they are exposed to the new food cultures which indirectly improve their knowledge about access to local food and skills in meal preparation. For example, Hadley et al. (2007) identified that after a period of time residing in the host country, migrants improved their English language proficiency enabling them to better communicate with others, which aided them in their exposure and familiarity with the new food culture, and contributed to better food accessibility.

Financial support has also been identified as a major determinant in food accessibility and has significant impact on food security (Carter et al., 2010): when the power to purchase food is lost, food affordability and accessibility is affected. This condition becomes worse for low-income earners or the unemployed. They have a higher risk of food insecurity because they may have insufficient funds to purchase food. Location is also one of the determinants of food security; populations living in rural and regional area have disadvantages in terms of food availability and accessibility. The variety of food items including cultural foods decreases in more rural and regional areas and communities (Tsang et al., 2007). People who stay in regional areas or who are further from food shops may experience problems in accessing food without transport (De Marco, Thorburn, & Kue, 2009). In addition to these barriers, there are other factors which are at play as well, such as cultural identity which is closely related to food practices (Kruger, Stonehouse, von Hurst, & Coad, 2012). For example, South Asian people often use many different types of cooking oil when compared to Western people.

### *1.3 Strategies to Enhance Food Security*

Different strategies have been identified that help migrants to enhance their food security. Home gardening is a practice which connects food, nature and communities together. It not only brings financial and health benefits to those participating, but also strengthens relationships among family and community members and is positively associated with food security (Gray, Guzman, Glowa, & Drevno, 2013). Making personal changes is a strategy that can also enhance food security. For example, alterations to food recipes have shown to help solve the challenges of obtaining food ingredients that are not available (Renzaho & Burns, 2006). Furthermore, social

networking and social support are vital resources for migrants to seek support from friends, neighbours or the community (Fieldhouse & Thompson, 2012). Local people are able to provide information about food availability, food growing and food preparation in the host country. This contributes to increasing the knowledge of migrants regarding the food culture of the host country and to indirectly improve their food security.

Due to the limited research and knowledge about migrant food security in regional areas, and the lack of any studies on migrant food security in Tasmania, a project was developed to focus on and identify the food security of migrants living in Tasmania and the barriers they face in accessing food, in order to provide insights for policy makers and organisations, with the aim of improving migrant food security.

#### *1.4 Research Questions*

Three research questions were developed:

- a) What are the challenges faced by migrants living in Tasmania in terms of food security?
- b) What are the barriers for migrants living in Tasmania to access food?
- c) How do migrants living in Tasmania acculturate into the new food culture in Tasmania?

The study was part of a wider research project exploring experiences of migrants living in rural areas, their lifestyles and food consumption patterns (Yeoh, Lê, Terry, & McManamey, 2014). A qualitative phenomenological approach using semi-structured interviews was employed to investigate the perceptions and experiences of migrants living in Tasmania.

## **2. Method**

### *2.1 Data Collection*

Participants were recruited through Migrant Resource Centres or cultural associations in Tasmania. The selection criteria for interview participants included: permanent resident of Tasmania; be from any cultural background other than Australian; be 18 years of age and older; and have a reasonable understanding of English.

There were 33 migrants who met the criteria and they were each invited to participate in a semi-structured interview. The interviews took approximately 40 minutes to complete and consisted of nine questions concerning the participants' background, their experiences of food security, the barriers they face to access food, and how they adapted to the Tasmanian food culture. Saturation was determined by the team of researchers. This was achieved after conducting 33 interviews as no more new themes and categories emerged from the data.

### *2.2 Data Analysis*

The qualitative data were analysed using thematic analysis which required the researchers to constantly analyse and compare newly gathered information before going back to new participants (Bazeley & Jackson, 2013; Boyatzis, 1998). For the analysis, QSR – NVivo v10.0 software (QSR, 2012) was used to transcribe and code interview data. To ensure the integrity of the collected data, another researcher (an independent judge) who was conducting research in the same general field was asked to review the raw interview data. The independent judge reviewed verbatim transcripts of the interview files. This researcher also independently coded three interviews of a random sample of data. The researchers and the independent judge discussed the coding until agreement was reached. Prior to data collection, ethics approval was obtained from the Tasmania's Social Sciences Ethics Committee (Ref: H0012622).

## **3. Results**

### *3.1 Characteristics of Participants*

The characteristics of the 33 migrants who participated in the semi-structured interviews are presented in Table 1.

Table 1. Characteristics of study participants

Characteristics (N=33)	n (%)
<b>Regions of origin</b>	
- Asia	30(91.0)
- Other	3(9.0)
<b>Length of stay in Tasmania</b>	
- Less than 1 year	8(24.2)
- 1 to 2 years	3(9.2)
- Over 2 to 3 years	8(24.2)
- Over 3 years	14(42.4)
<b>Place of stay in Tasmania</b>	
- Hobart	6(18.2)
- Launceston	23(69.7)
- Burnie	3(9.1)
- East Coast	1(3.0)
<b>Level of highest education</b>	
- University	25(75.8)
- Secondary	6(18.2)
- Other	2(6.0)
<b>Language spoken at home</b>	
- English	10(30.3)
- Other	23(69.7)

### 3.2 Main Themes

Three main themes emerged from the interview data:

- a) The experiences of the food security in Tasmania.
- b) The factors that influence migrant food security in Tasmania.
- c) The acculturation strategies among migrants.

Figure 1 shows the themes and subthemes that emerged from the interview data.

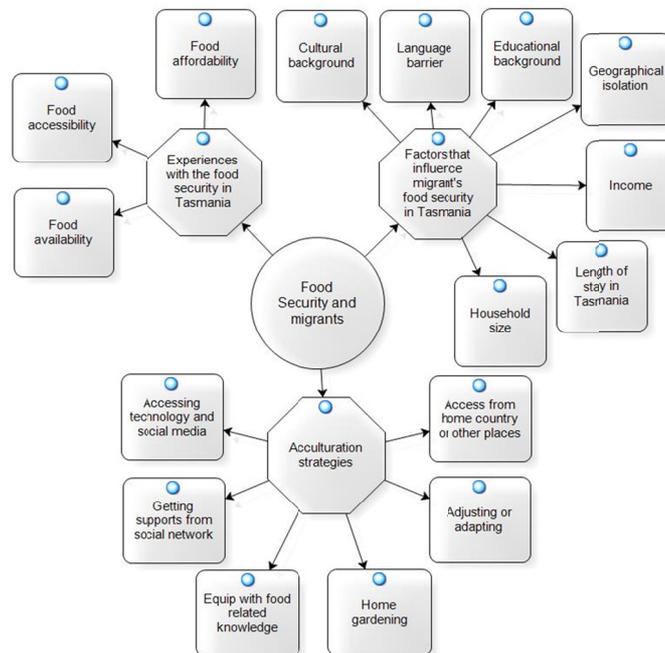


Figure 1. The themes and subthemes of migrant food security in Tasmania

### 3.3 Experiences of Food Security in Tasmania

Migrants in the study shared their experiences of food security when living in Tasmania, mainly on food availability, accessibility and affordability.

#### 3.3.1 Food Availability

In general, the participants expressed that the food ingredients available in Tasmania were sufficient to fulfil their needs. The increase of food ingredients in food shops such as supermarkets was enough to support their needs. Migrant 22 stated that “there is more and more food or raw material available in Tasmania now. So, it’s not a problem for me.” On the other hand, there was still a lack of certain food ingredients available in Tasmania. For example, the choices of many varieties or familiar vegetables were limited. Participants could not get preferred vegetables because “there is only a small section of frozen vegetables” (Migrant 18).

Furthermore, migrants found that there were limited or unavailable cultural food choices in Tasmania. There were certain foods that could not be found in Tasmania yet were available on mainland Australia. For example, Nepali food that is available “in Sydney, Melbourne and Adelaide... However, I cannot find in Tasmania... For example, noodle we eat in the past. Spices, some spices we eat not available in Australia. Rice, the different types of rice we eat. We cannot find in Tasmania” (Migrant 25). Migrants also commented on how easy it was to access certain culturally-specific food such as Chinese, Malaysian, Vietnamese, and Indian food which is available in the major supermarkets and cultural food shops compared to others such as Nepali or Korean. Migrant 7 stated that it was easy to get Chinese food ingredients “because there is a new grocery shop opened in town” which offered more choices. A participant from Malaysia also found it was convenient to buy Malaysia food “because we have an Asian shop here (Burnie)... So I can get all the food ingredients I want in the Asian shop, especially those spicy foods” (Migrant 20). Conversely, a Korean participant found it was difficult to access Korean food, “Korean food products may be not as popular/common as others cultural food products, such as Chinese or Japanese” (Migrant 28).

There were also differences in terms of food availability within Tasmania. Some places such as Hobart and Launceston have greater food options than other more regional areas of Tasmania. One migrant living in Burnie (Tasmania’s third largest city) could not get Vietnamese food ingredients for her cooking.

*Sometimes, I want to cook Vietnamese food, but I cannot find the ingredients, like herbs, in Coles and Woolworths [major supermarkets]... Like, some food ingredients for Vietnamese food, for example, herbs and Vietnamese spring roll wrapper. (Migrant 1)*

### 3.1.2 Food Accessibility

The participants stated that it was convenient for them to get or buy the food they needed. They usually walked, or drove when there was a need to go further or when they needed to undertake a 'big shopping' or purchase of groceries. "We live in a good place that near to supermarket. I normally walk there, if there is big shopping, I will use my car" (Migrant 4). However, some migrants felt it was not cost effective to travel great distances to buy the food they needed. Migrant 12 explained "I won't go further to buy particular food because it costs too much petrol."

In terms of places to buy food, the supermarket was the first choice. Local food stores such as the green grocer were another choice for fresh food products. Migrants also went to cultural food stores to buy cultural specific foods when they could not find the ingredients in the supermarket.

*I buy almost all food from supermarkets, sometimes from the Asian shops in Launceston (Migrant 17)*

### 3.1.3 Food Affordability

In terms of food affordability, migrants often made comparisons between food prices in Tasmania and mainland Australia. The prices of vegetables, fruits and cultural food were much higher in Tasmania. As indicated by Migrant 27, "there are very few food outlets which make the ingredients very expensive... I realize there is about 40-50% of what you pay in mainland than you paying here." They also discovered that the food price here such as "the chicken, it is really cheap over there [the United States]. And it is not cheap here [Tasmania], same as beef" (Migrant 18). However, food price was not a concern for some migrants as long as the food items were obtainable. Migrant 24 indicated that "we do not worry about the price, as long as we afford to pay for it."

Due to the high food prices, a well-planned food budget was identified as a requirement to control personal expenses. Migrants reduced the food portion if the food cost was high.

*If the price of tomatoes is \$2 a bag, you eat tomatoes as you want, and whereas if the price of tomatoes is \$6, you buy less tomato. You eat less vegie because the price is high (Migrant 12).*

However, migrants who were on a low income or unemployed found purchasing food was challenging and had to act wisely in planning their food budget. Migrant 11 mentioned the high food price in Tasmania which was a burden when "compare to our earning, 60% to 70% of our people live below the line" (Migrant 11).

## 3.2 Factors That Influence Migrant Food Security in Tasmania

### 3.2.1 Cultural Background

The migrant's cultural background strongly impacted on their food security in many ways. This included adapting to Australian food culture, food preparation methods, food habits, and food practices. Differences in cultural background may lead to differences in food habits and food preparation. The way migrants and local people prepared food was noted to be different. For instance, those from the Philippines used a frying technique when preparing food most the time, while Australians used baking or grilling.

*In Philippine, we used to fry the food all the time. However, here, we use broiling, baking more. It is not said that we do not use frying here, but we use better oil like olive oil to fry. It is healthier than the ordinary oil that we used to (Migrant 17).*

### 3.2.2 Language Barrier

Lack of English language skills has been reported in the literature as a reason migrants have difficulty in accessing food (Vahabi & Damba, 2013). Interestingly, most of the interview participants reported they had no problem in communicating and understanding English but the importance of the English language related to the understanding of food information written in English. "English helps to understand the food label which is written in English" (Migrant 4). Occasionally they found understanding the Australian accent a challenge, but only one participant indicated that poor English communication skills restricted her from doing grocery shopping on her own.

*I cannot go supermarket and buy food myself. My English is not good. I always accompany with my husband. Whenever I see vegetables that I want, I will pick them up and put in the shopping basket. (Migrant 15)*

### 3.2.3 Educational Background

Higher education qualifications were shown to provide an advantage among migrants in obtaining good nutrition and diet. For example, one participant from a family of doctors had been educated about the importance of food and nutrition since she was a child. Another participant attended food handling courses to "learn how to prepare Tasmanian food and different cultural food" (Migrant 11).

*I used to be Chinese doctor. So I have health knowledge. I always give him [husband] suggestions on what should eat or what should not (Migrant 31).*

#### 3.2.4 Geographical Isolation

The proximity of the food shop to the place of residence was one factor determining the difficulties of migrants in accessing food. This situation became worse if transportation was not available. In this study, the majority of participants did not have problem in accessing food from shops because they “live near to shopping centre [or supermarkets]” (Migrant 1). They usually walked or drove to purchase food.

*I normally drive to supermarket. I have a car... I do take the bus or walk there if I want to do food shopping. (Migrant 19)*

#### 3.2.5 Income

Another factor was the income or socioeconomic status of the migrant. Without money, there was a limited choice in selecting food particularly healthy food. “If people have the money to buy food they want, they certainly have more choices” (Migrant 7). Furthermore, healthy food is expensive compared to other food, thus “In finding healthy food, money or budget is a matter. You must have enough money in order to get healthy food. It is all about money” (Migrant 28). It was a greater challenge for people who were unemployed or on a low income to budget their food expenses. They had to have a well-planned food budget to feed themselves and all family members.

*I am adjusting. I cannot buy those expensive one. I have to control because I do not have income now. I depend on the money given by Centrelink [Australian government]. I am still looking for job (Migrant 16).*

#### 3.2.6 Length of Stay in Tasmania

The duration of stay in the host country was also shown to impact the migrants’ adaptation to the new environment. The longer the time of stay in Tasmania, the greater the awareness of food information and better food consumption. Thus, the duration of stay in the host country impacted the migrants’ adaptation to the new environment. In this study, most migrants experienced some hardships when first moving to Tasmania; however, after a period of time, they adapted to the Tasmanian food culture. In most cases, it was six months to two years before they felt that they had adapted to the food culture in Tasmania.

*At the beginning, it was difficult to change, but as time goes by, and with having kids, I learn to adapt to the kind of food available in Tasmania (Migrant 3).*

#### 3.2.7 Household Size

The number of people in a household influenced the food security level. This applied more to participants who were married and had large families; their living expenses and budget needed to be well managed, especially on food. There were more concerns about the cost of food to feed family members.

*There are six of us in the family. So, we have to find something that feed everyone... Such as two dollars for a can, I try to feed six people in bunch... We have limited budget, so we have to be very careful not to go over the budget because we do not have anything from our background (Migrant 18).*

### 3.3 Acculturation Strategies

The third theme that emerged from the interview data was the acculturation strategies that migrants employed to cope and integrate the new food culture.

#### 3.3.1 Accessing Food From Other Places

Most migrants indicated that they imported or brought food products from other places (such as Melbourne, Sydney or their home country) that were not available in Tasmania. “I just paid a trip to Melbourne to buy what I needed and stored them in the freezer” (Migrant 8). Occasionally, friends or family members sent the food products to them. Migrant 33 did state in the interview that “On June, he [husband] will go back to China, and I ask him to buy some traditional dry food in China and take them back” (Migrant 33).

#### 3.3.2 Modifying Food Preparation Method

The migrants also indicated that they had learned to adapt to the new food environment by changing their food preparation methods or by substituting different ingredients. For example, they changed or modified a recipe if there was a lack of ingredients they needed. “I found some ways or replacing the ingredients as I wanted to put in the traditional Filipino food that I want to cook” (Migrant 3). In other cases, migrants stated they will just not cook certain foods.

*If there is no food that we want available here, we just go without it (Migrant 31).*

### 3.3.3 Home Gardening

Home gardening was a strategy that was highly recommended by migrants. Having their own garden was seen as a good practice where they could grow the food they preferred or the ingredients that they were unable to purchase in the local stores. One participant chose to plant vegetables, such as chillies, that were difficult to find in the supermarket because “I miss all my chilli, but I do grow my own chilli plants here... I have my own food ingredient. I still can cook the dishes I like” (Migrant 20). In addition, growing their own food and ingredients also helped reduce the food expenses.

### 3.3.4 Equip With Food Related Knowledge

The food and health knowledge that the migrant possessed through their previous experiences or educational background was shown to reduce acculturation time. All food-related knowledge, such as nutrition, preparation and handling was helpful and facilitated their acculturation to Tasmania’s food culture and to live healthier lives.

*It is very common for the chicken, beef, pork, lamb... Then as far as the meat, fruits and vegetables, it is all the same things called by different names. If I went to a store, I knew it everything in it, what to do with it. (Migrant 18)*

### 3.3.5 Support From Social Network

Support from social networks was one of the main resources that migrants used to help navigate the new food environment. Migrants obtained new information regarding food and health in Tasmania from their social networks including friends, family, relatives and neighbours. This led to an improvement in their understanding of and access to food.

*I have many friends who help and give me advice about food... For example, in December, there were mangoes imported from mainland. We will tell everyone when they were on sale because mangoes are very expensive... Whatever comes to food, we tell everyone” (Migrant 6)*

### 3.3.6 Accessing Technology

The final strategy used was technology, which included the internet and online social networking, such as Facebook, to obtain sufficient information about food, ingredients and how food was prepared in Tasmania. In addition, the internet provided a wide variety of information and discussion about food and health from a worldwide perspective.

*So, basically internet is the one that help lots. Normally, if I need an ingredient, I will search in eBay and see if there any (Migrant 6).*

## 4. Discussion

The finding suggests there is a lack of cultural food in Tasmania. Migrants stated that the cultural food options, fresh vegetables and fruit choices available in Tasmania were limited. However, despite the limited availability of cultural food, overall the migrants were satisfied with the food they obtained in Tasmania. In terms of access to food, migrants did not encounter any problems because they had own transport and were strategically located near food outlets. Supermarkets were the principle places to purchase food due to the greater food options that were available (Tsang et al., 2007). When discussing food price, they indicated the high cost of food in Tasmania, particularly culturally-specific foods. This higher cost was burdensome for migrants who were on a low income or who were unemployed (Kirkpatrick & Tarasuk, 2010).

Seven factors that influenced migrant food security were identified: cultural background, language barrier, educational background, geographical isolation, income, length of stay in Tasmania and household size. The cultural identity of the migrant and their exiting food practices had an impact on their eating habits when they migrated to Tasmania (Kruger et al., 2012), for example, those participants from the Philippines indicated that the way food was prepared was different in the Philippines than in Australia and this had an impact on their food security.

Poor level of English language ability is one of the barriers that have been identified in previous studies as having an impact on migrants’ ability to access food in an English speaking country (Vahabi & Damba, 2013). However, it was not a major concern for migrants in this study. Only one participant experienced this problem. However, to overcome this challenge, she took her husband with her when food shopping.

It was shown that higher educational levels among migrants equipped them with better knowledge about food and diet as well as how to live a healthier life. One participant was once a Chinese doctor and had health and

nutrition knowledge which assisted her to obtain a healthy diet in Tasmania. Learning food handling practices at a local polytechnic college also enhanced migrants' skills in food preparation.

The location of the food shop also influences the accessibility and availability of food (Tsang et al., 2007). The greater the distance a shop is located from a person's dwelling the more difficult people find it to access food, particularly those without transportation or those in areas of poor public transport (Kirkpatrick & Tarasuk, 2010). The participants in this study did not identify this as a problem as they had their own transport or strategically lived near a supermarket/food shop. As indicated in Tsang et al. (2007), food availability decreases when the distance from an urban area to a remote place increases. Participants who lived in more regional areas in Tasmania experienced more difficulty finding certain food ingredients than those living in the cities of Hobart and Launceston.

Personal finances also had an impact on the individual's ability to purchase food. With limited money, it is challenging for people to purchase food, particularly expensive healthy food (Carter et al., 2010). Migrants who may be dependent on welfare or who are unemployed may be stricter with their food budget as a way to control their overall expenses. However, if they require certain culturally-specific foods (which may be more expensive than mainstream 'Australian' food due to their rarity, cost to import etc.), they may forgo other vital expenses to ensure they are food secure.

The length of stay that a migrant was settled in the host country influenced their adaptation to the new environment, including food production, preparation and consumption. After a period of time, they may adapt and become more familiar with the new culture (Hadley et al., 2007).

The last factor was household size, in which a larger household size has a higher risk of food insecurity. In this study, a participant with six family members indicated that it was a challenge for her to plan the food budget to feed all and ensure good nutrition for the children with limited money. Again, the larger number of people in the household limits the buying power and the ability to purchase culturally-specific foods which may impact on the health and wellbeing of each member of the household. Alternatively, to maintain a healthy diet or to purchase culturally-specific foods, other expenses may be relinquished which may also have an impact on overall health.

In terms of acculturation strategies, migrants accessed food items they needed from their home country or alternative places (e.g. mainland cities) when there was a need to do so. They modified or changed the food recipes if specific food ingredients were not available. This method has been employed in other studies to mitigate the food security problem (Renzaho & Burns, 2006).

A popular technique which is highly promoted to enhance food security was gardening. Gardening was viewed by the migrants as a good practice to increase their food security and the accessibility of certain produce (Gray et al., 2013). Migrants may grow and harvest their own produce from their gardens to contribute to meals and help to reduce overall food expenses. Vegetable gardens also help migrants to maintain access to their preferred foods when they are away from home.

In addition to garden production, those migrants who were equipped with health or food related knowledge adapted better to the new food culture than those lacked this knowledge. For instance, migrants who have been a homemaker for years and who take care of the family's daily diet, may require a shorter period of time to adapt to Tasmanian food culture. Furthermore, family members, friends and community members are good resources to help address food security issues, such as providing local food knowledge, where culturally-specific foods can be obtained or what alternatives may be suitable (Fieldhouse & Thompson, 2012).

Lastly, technology including internet access is often useful to obtain various and detailed information regarding food and diet both locally and around the world. Social networking such as Facebook may be utilised as a tool for migrants to share information related to food among the members within a community or across various communities.

This study provides a better understanding about the migrant experience of food security in a regional area, such as Tasmania, as well as identifying the barriers and acculturation strategies utilised by migrants. Through the interview data, it was observed that there is a need to increase food varieties, food choice or develop a food cooperative which may fulfil the needs of the various cultures that now call Tasmania home. This is particularly evident for those cultural foods which are preferred and may be expensive for individual migrants to purchase.

Since there has been an increase in the migrant population in recent years, there is a need for an increase in the awareness by policy makers, government, non-profit organisations and cultural community groups about food security and an increase in attention on migrants' health and well-being. For instance, Migrant Resource Centres could educate newly arrived migrants regarding the foods that are available in Tasmania and healthy eating. This

may better prepare migrants in terms of the adaptation to food and culture of the host country, which may contribute to a better adaptation and acculturation into the new culture and environment.

#### 4.1 Limitations

The study attempted to select participants from all areas in Tasmania however there were higher participant numbers from the north of Tasmania and participants were only those from Hobart, Launceston, Burnie and East Coast. Due to this, the study may not have encompassed all the experiences and issues of migrants concerning food security. However, the majority of migrants in Tasmania reside in Hobart and Launceston, so this distribution is relatively representative. In addition, the applicability of the findings may be limited by the relatively small number of participants.

#### 4.2 Conclusion and Recommendations

In conclusion, food security is a vital element for migrants in relation to their health and well-being in the host country. This study provides some insights about the issues and problems facing migrants in their food security experiences in Tasmania. The findings show that there is an inadequacy in cultural food and choice available in Tasmania and since there has been an increase in migrants settling in Tasmania, it is important that more cultural foods are offered to fulfil their needs. There may be an increasing market for food traders, cultural food distributors and supermarkets to import more varieties of cultural food to Tasmania. Migrants also rated the food prices in Tasmania as high compared to interstate and overseas, which impacted their food affordability. State government initiatives to reduce food costs by applying some alternative strategies, such as reducing transportation costs through growing and selling food locally, should be encouraged. This type of initiative may help to reduce the cost of vegetables and fruits as well as make healthy food diets achievable, for all Tasmanians (migrants and non-migrants). The encouragement of cultural food co-operatives where members can access foods at cheaper prices or purchase fresh foods grown within the cultural community, may also offer increased food security. To this end, it is anticipated that the findings of this study will contribute to the enhancement of food accessibility and availability for both current and future migrants in Tasmania.

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