



MONASH University

**Health literacy and health care needs in
midlife among women who have migrated
from low- and middle-income countries to
Australia**

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A thesis submitted for the degree of *Doctor of Philosophy* at
Monash University in 2020

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Abstract

Background

Health literacy refers to an individual's capacity to make well informed health-related decisions and is supported by a health system that considers the individual's ability to navigate it. Poor health literacy is linked to greater use of emergency care, higher rates of hospitalisation and lower participation in health screening and health promotion programs and is common among people with limited education, who are from culturally and linguistically diverse backgrounds and who are socioeconomically disadvantaged or marginalised. Women who migrate from a low- to a high-income country are more likely to have poor health literacy than locally-born women. Health behaviours around the time of menopause influence health outcomes in later life. Little is known about migrant women's capacity to make informed menopause health-related decisions or health care providers' experiences of providing menopause-related care to this population.

Aims

The aims of this research were to explore: menopause-related health literacy and health care needs of women who migrated from low- and middle-income countries to Australia; and the experiences of health care providers who care for migrant women in midlife to inform health care practice and policy.

Methods

This research was informed by the Integrated Model of Health Literacy and used an Exploratory Sequential Mixed Methods Research Design. The first component was a systematic literature review of the experiences of menopause, self-management strategies for menopausal symptoms and health-care needs among of immigrant women. The findings informed semi-structured interviews with menopausal women who had migrated from Horn of Africa nations or Vietnam living in Melbourne, Australia. The findings from the first two components informed the development of a survey for primary health care providers in Australia who care for migrant women.

Results

The literature review reported data from 23,719 women across 19 studies, 5615 of whom were migrant women. It found that migrant women report more physical and psychological symptoms than women from the host countries. The social and cultural meaning of menopause to migrant women, their menopause-related self-care strategies, health literacy ability and their experiences with health care providers were largely unexplored.

Semi-structured interviews were conducted with 11 women from Horn of Africa nations and 12 women from Vietnam. Participants were diverse in terms of age, menopausal status, level of education and number of years lived in Australia. Interviews revealed that cultural beliefs shaped women's meaning of menopause and influenced their menopause-related self-care strategies. Cultural norms in their country of origin, limited English language proficiency, limited formal education and literacy, and differences in health care systems and health care priorities between their country of origin and Australia influenced the women's menopause-related health literacy capacity. Participants identified a number of barriers for accessing menopause-related health information, including some relating to their interactions with primary health care providers.

The survey was completed by 139 general practitioners and nurses of whom a third reported lacking confidence in providing menopause-related care to migrant women. Time constraints and limited availability of resources for women from culturally and linguistically diverse backgrounds were identified as barriers for providing comprehensive menopause-related care to migrant women. Resources in community languages and structural support were endorsed to address these barriers.

Conclusion

This research established that migrant women from low- and middle-income countries lack the necessary skills and supports to make well informed health-related decisions during and after menopause. In addition, health care providers lack the necessary educational and structural supports to provide comprehensive care to migrant women during and after menopause. The finding will inform practice, policy and future research to support menopause-related health and health care to promote healthy aging among migrant women.

Thesis including published works declaration

I hereby declare that this thesis contains no material which has been accepted for the award of any other degree or diploma at any university or equivalent institution and that, to the best of my knowledge and belief, this thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

This thesis includes 4 original papers published in peer-reviewed journals. The core theme of the thesis is health literacy and health care needs in midlife among migrant women from Vietnam and the Horn of Africa nations. The ideas, development and writing up of all the papers in the thesis were the principal responsibility of myself, the student, working within the Global and Women's Health Unit under the supervision of Prof. Jane Fisher and Dr Karin Hammarberg.

In the case of chapter 5, 6, 7 and 8 my contribution to the work involved the following:

Thesis Chapter	Publication Title	Status	Nature and % of student contribution	Co-author name(s) and % of Co-author's contribution
Five	Experiences of menopause, self-management strategies for menopausal symptoms and perceptions of health care among immigrant women: a systematic review	Published	70% Study design, data extraction and data analysis and synthesis, manuscript preparation and revision	Karin Hammarberg: 15% data synthesis and interpretation, revision and input into manuscript Jane Fisher: 15% data interpretation, revision and input into manuscript
Six	"They should come forward with the Information": Menopause-related Health Literacy and Health Care Experiences among Vietnamese-born Women in Melbourne, Australia	In press	70% Study design, data collection, transcription, management, analysis, and interpretation. Preparation and	Karin Hammarberg: 15% Study design, data interpretation and input into manuscript Jane Fisher: 15% Study design, data interpretation and

			revision of manuscript	input into manuscript
Seven	“Not everybody is an internet person”: barriers for menopause-related health literacy among immigrant women from the Horn of Africa nations	Published	70% Study design, data collection, transcription, management, analysis, and interpretation. Preparation and revision of manuscript	Karin Hammarberg: 15% Study design, data interpretation and input into manuscript Jane Fisher: 15% Study design, data interpretation and input into manuscript
Eight	Primary health care providers’ attitudes and beliefs about the menopause-related care needs of women who have migrated from low- and middle-income countries to Australia	Published	70% Study design, data collection, management, analysis, and interpretation. Preparation and revision of manuscript	Karin Hammarberg: 15% Study design, data interpretation and input into manuscript Jane Fisher: 15% Study design, data interpretation and input into manuscript

I have renumbered sections of submitted or published papers in order to generate a consistent presentation within the thesis.

Student signature: Karin A. Stanzel **Date:** 18 March 2020

The undersigned hereby certify that the above declaration correctly reflects the nature and extent of the student’s and co-authors’ contributions to this work. In instances where I am not the responsible author I have consulted with the responsible author to agree on the respective contributions of the authors.

Main Supervisor signature: *(Insert electronic signature)* **Date:**

Research outcomes during enrolment

A list of publications and conference presentations are presented below. For conference presentations the presenting author is bolded.

Peer-reviewed publications

Stanzel, K.A., Hammarberg, K. & Fisher, J. (2018) Experiences of menopause, self-management strategies for menopausal symptoms and perceptions of health care among immigrant women: a systematic review, *Climacteric*, 21(2), 101-110, <https://doi.org/10.1080/13697137.2017.1421922> (Chapter 5)

Stanzel, K.A., Hammarberg, K. & Fisher, J. (2020) “They should come forward with the Information”: Menopause-related Health Literacy and Health Care Experiences among Vietnamese-born Women in Melbourne, Australia, *Ethnicity and Health*, DOI: <http://dx.doi.org/10.1080/13557858.2020.1740176> in press (Chapter 6)

Stanzel, K.A., Hammarberg, K. & Fisher, J. (2020) “Not everybody is an internet person”: Barriers for menopause-related health literacy among immigrant women from the Horn of Africa nations, *Health Promotion Journal of Australia*, online publication <https://doi.org/10.1002/hpja.326> (Chapter 7)

Stanzel, K.A., Hammarberg, K. & Fisher, J. (2019) Primary healthcare providers’ attitudes and beliefs about the menopause-related care needs of women who have migrated from low- and middle-income countries to Australia, *Australian Journal of Primary Health*, 26(1), 88-94, <https://doi.org/10.1071/PY19132> (Chapter 8)

Conference presentations – speaker selected from abstract

Stanzel, K.A., Hammarberg, K. & Fisher, J. Immigrant women’s experiences and perceptions of the menopausal transition and post-menopausal life: a systematic review. Presented at: European Menopause and Andropause Conference. 22-24 May 2017, Amsterdam, Netherlands.

Stanzel, K.A., Hammarberg, K. & Fisher, J. Immigrant women's experiences and perceptions of the menopausal transition and post-menopausal life: a systematic review. Presented at: Evidence for Equity: Multicultural Women's Health Conference. 31 July – 1 August 2017, Brisbane, Australia.

Stanzel, K.A., Hammarberg, K. & Fisher, J. Health literacy and health care needs in midlife among women who have migrated from Vietnam to Australia. Presented at: Cancer Council Victoria Nurse Cervical Screening Provider Professional Development Forum. 16 November 2018, Melbourne, Australia.

Stanzel, K.A., Hammarberg, K. & Fisher, J. "They should come forward with the Information": Menopause-related Health Literacy and Health Care Experiences among Vietnamese-born Women in Melbourne, Australia. Presented at: Annual Scientific Meeting of The Australian Society for Psychosocial Obstetrics and Gynaecology. 1-3 August 2019, Melbourne, Australia

List of Acronyms

ALLS	Adult Literacy and Life Skills Survey
CHN	Community Health Nurses
FARREP	Family and Reproductive Rights Program workers
F-K	Flesch-Kincaid
FRE	Flesch Reading Ease
GP	General Practitioner
GNI	Gross National Income
HLS-EU	European Health Literacy Survey
HLS-EU-47	European Health Literacy Questionnaire
HCP	Health Care Provider
HLQ	Health Literacy Questionnaire
IOM	International Organisation of Migration
IMHL	Integrated Model of Health Literacy
IPV	Intimate Partner Violence
LGA	Local Government Area
MENQOL	Menopause Specific Quality of Life
MRS	Menopause Rating Scale
MRQ	Menopause Representations Questionnaire
NATI	National Accreditation Authority for Translators and Interpreters
NCDs	Non-Communicable Diseases
NP	Nurse Practitioner
NVS	Newest Vital Sign

OECD	Organisation of Economic Co-operation and Development
PHCP	Primary Health Care Provider
PN	Practice Nurse
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analysis
PROSPERO	International Prospective Register for Systematic Reviews
REALM	Rapid Estimate of Adult Literacy in Medicine
RHN	Refugee Health Nurse
RN	Registered Nurse
SMOG	Simple Measure of Gobbledygook
SRHN	Sexual and Reproductive Health Nurse
TOFHLA	Test of Functional Health Literacy in Adults
WHN	Women's Health Nurse
WHO	World Health Organization
WHQ	Women's Health Questionnaire

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Acknowledgements

This research project would not have been possible without the generous contributions of the research participants. Without their participation and support the generation of knowledge for this project would not have been possible. I am extremely grateful for their time and sharing their experiences so openly.

I was the recipient of the Australian Government Research Training Program Scholarship and would like to express my appreciation for the financial support provided during my candidature.

My very special thankyou to my supervisor Professor Jane Fisher who encouraged and invited me to consider completing a PhD. Thank you for believing in me.

Many thanks to both Professor Jane Fisher and Dr Karin Hammarberg who both contributed unique and diverse research expertise and guided me through the at times challenging processes of designing, implementing, analysing and drawing conclusions of the research. Their wisdom, guidance, feedback and unwavering support are greatly appreciated.

I am extremely grateful to Dr Trang Nguyen. Without Trang's willingness to become involved in the recruitment and support in the data collection procedure as bilingual researcher, this component of my project would have been a lot more challenging.

Special mention to Dr Anh Nguyen who introduced me to the Vietnamese Elders groups and to Dr Berihun Zeleke for introducing me to women from the Ethiopian community. These introduction became the first opportunities to recruit participant volunteers for the study.

Dr Beck O'Hara who supported me in IT-related questions and challenges. Thanks so much for your support and patience even though you were a very busy PhD student yourself.

Thanks to Dr Goma Khatri for her words of wisdom – 'every day you will have achieved a little bit more'. It helped me to reflect on the 'little bit' at the end of each day.

I am grateful to the staff at Global and Women's Health for their support, encouraging and kind words. Special thanks to Karin Smith for diligently arranging my supervision times, for her cheerful nature and humour. Many thanks to Dr. Claire Stubber, for her thoughtful and kind words of support.

Many thanks to current and post PhD students at Public Health and Preventive Medicine for sharing their experiences, encouraging words of wisdom and support, especially Dr. Sarah McGuinness for helping a 'baby boomer' to format her thesis.

To my friends and family members (too many to mention by name) here in Australia and in Germany, thank you, thank you, thank you. Over the past 30 years you have endured my study-related absences and complaints as I was in the process of completing yet another degree. This was definitely my last and final one, I promise.

Special thanks to Dr David Doig for the initial feedback regarding the health care providers' survey and for distributing my survey to his networks. Thanks.

Thanks to Wayne and Margaret Dimech for helping getting my very first publication 'Outreach youth health service in school setting: a retrospective case study' over the line which was helpful in obtaining my scholarship.

My very special thanks to my children Linda, Benjamin, Michael and their partners for their love, patience, and encouragement.

Finally, special thanks to my husband and best mate Rainer. I would like to thank you for your patience as I embarked on this epic learning journey. Your ongoing love, support, encouragement and patience (I know I was 'absent' for nearly 4 years), have been my 'rock' through this PhD journey. Finally, the time has come for us to see more of the world and travel.

Chapter 1: Migration and women's health

1.1 Introduction

The World Migration Report 2018 (United Nations Migration Agency, 2018) stated that in 2015, the global number of migrants - individuals who leave their country of origin to establish themselves in another country - was approximately 244 million people.

Most people who migrate are seeking opportunities for education, or work or to join family members. Around 10 per cent of migrants leave their country of origin for humanitarian reasons to escape internal conflict, war, persecution or natural disasters (United Nations Migration Agency, 2018). Most migrants move from lower to higher income countries. The United Nations Migration Agency (2018) reported that in 2015, around 157 million migrants resided in high-income countries, 77 million in middle-income countries and around 9 million in low-income countries.

The World Bank classifies countries into four income groupings: low, lower-middle, upper-middle, and high-income. A nation's economy is measured using gross national income (GNI) per capita in U.S. dollars converted from the local currency and is reviewed annually (World Bank, 2019).

Establishing life in a new country is associated with many challenges (Meadows, Thurston, & Melton, 2001). One significant difficulty for migrants is to understand and navigate systems, including the health care system, in the new country. This is one possible reason why migrant populations report barriers in accessing health care and health promotion programs which are likely to affect their health (Higginbottom et al., 2015; Mengesha, Dune, & Perz, 2016).

1.2 Migration trends in Australia

Although, the actual number of migrants in Australia is lower than most other receiving countries, per capita Australia has the highest share of migrants (United Nations Migration Agency, 2018). The 2016 Census of Population and Housing (Australian Bureau of Statistics, 2016c) reported that more than a quarter (26%) of the population was born in a country

other than Australia. This is in contrast to the Australian population census conducted after World War II in 1947. At that time only 10% of the population was born overseas of whom fewer than 2% were born in a non-English speaking country. This was a result of the 'Immigration Restriction Act 1901' commonly known as the 'White Australia Policy' which was passed in 1901. It aimed to ensure that immigration by people of non-Caucasian appearance to Australia was limited to preserve the predominance of the British within Australia (Jupp, 1990; National Archives of Australia, 2019). This policy favoured migrants from Great Britain and other European nations and continued to influence immigration to Australia until the 1970s. In 1973, the introduction of the 'Racial Discrimination Act' resulted in an increase of migrants from non-European, linguistically and culturally diverse backgrounds and the beginning of a multicultural Australia (Koleth, 2010; O'Hanlon & Stevens, 2017). Although, the most common countries of birth among migrants are still the United Kingdom and New Zealand, the proportion of Australia's migrant population born in non-European countries has increased in the last four decades (Australian Bureau of Statistics, 2016c) (see Table 1 and Figure 1).

Table 1: The ten most commonly reported countries of birth for migrants to Australia in 2016

1. England (14.7%)
2. New Zealand (8.4%)
3. China (8.3%)
4. India (7.4%)
5. Philippines (3.8%)
6. Vietnam (3.6%)
7. Italy (2.8%)
8. South Africa (2.6%)
9. Malaysia (2.2%)
10. Scotland (1.9%)

Australian Bureau of Statistics: Census of Population and Housing, 2016 (Australian Bureau of Statistics, 2016c)

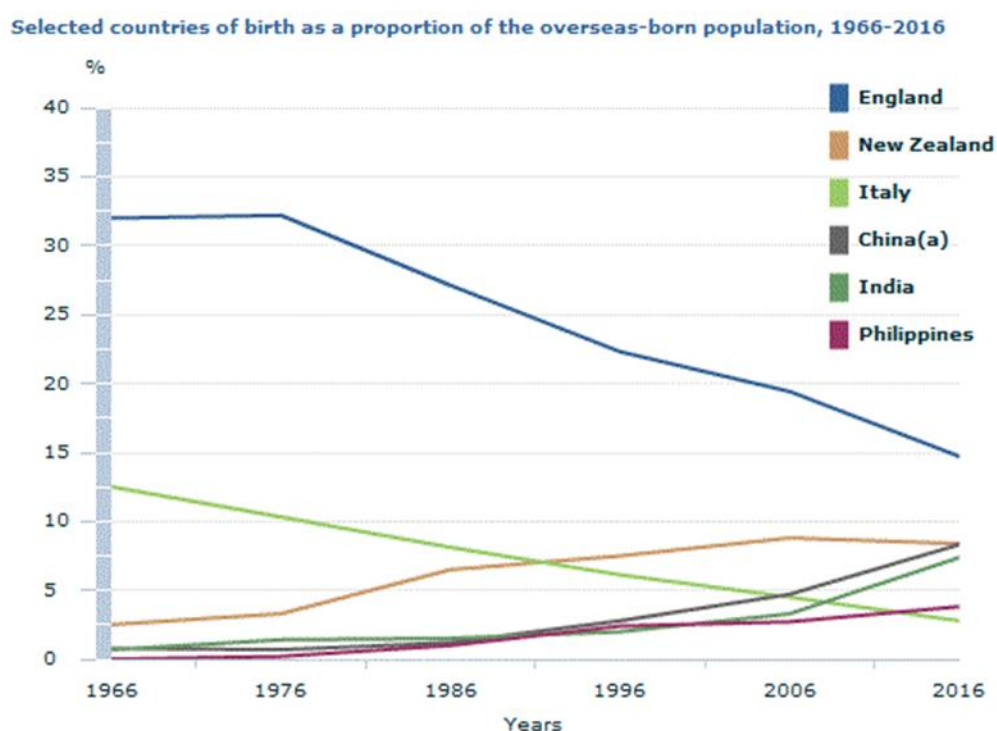


Figure 1: Selected countries of birth as a proportion of the overseas-born population, 1966-2016, Australian Bureau of Statistics: Census of Population and Housing, 2016 (Australian Bureau of Statistics, 2016c).

The 2016-2017 research paper ‘Migration to Australia: a quick guide to the statistics’ prepared by the Department of Parliamentary Services, Social Policy Section and Statistics and Mapping Section (Phillips & Simon-Davies, 2018) describes Australia’s two distinct permanent migration programs which allow individuals to remain in the country indefinitely; the ‘Migration Program’, which consists of the skilled migrants’ stream and the family migrants’ stream, and the ‘Humanitarian Program’ for refugees. Each year a quota of places is allocated to the two programs and amendments in migration policy have resulted in significant changes in the allocation of places between 1985 and 2016 (Phillips & Simon-Davies, 2018).

In 1984-85, 64% of permanent migration visas were granted under the Migration Program for family migrants, nearly 21% under the Humanitarian Program and 14% were allocated under the Migration Program for skilled migrants. In contrast, in 2015-2016, 62% of permanent visas were allocated to the Migration Program for skilled migrants, 29% to the

Migration Program for family migrants and less than 10% of permanent visas were granted under the Humanitarian Program (Phillips & Simon-Davies, 2018).

Women who have no effective protection of a male relative have received priority under the Humanitarian Program. In 1989, Australia adopted the 'Women at Risk Program' recognising that women who are unaccompanied by a male relative are at risk of victimisation, harassment or abuse because of their gender, commonly referred to as gender-based violence (Australian Government, 2013).

1.3. Agency and migration

In the past, people's agency to migrate was described as a binary construct, either as voluntary migration or forced migration. However, De Haas' (de Haas, 2011) working paper on 'The determinants of international migration: conceptualizing policy, origin and destination effects' argues that this wrongly implies that some migrants have complete freedom of choice and others have no choice at all in the decision to migrate. In the last two decades there has been increasing recognition that a continuum of agency exists where individuals have degrees of freedom of choice ranging from high to low. Therefore, self-agency needs to be considered as a continuum in migration-related research (United Nations Migration Agency, 2018).

1.4 Drivers of migration

The majority of people migrate for reasons related to work, family or study. In these circumstances, the decision to migrate is made with a high degree of freedom and often in the hope of improving the economic and social position of self and family. These migrants are likely to carry all the required legal documents including passport, valid visa, travel and work-related documents (United Nations Migration Agency, 2018).

In contrast, people who migrate to escape civil and political conflict, persecution or environmental disasters have had little choice in their decision to leave their home country. People who migrate for these reasons often start their migratory journey without legal

documents, exact knowledge of their destination, and what to expect during the travels and once they arrive at their destination (United Nations Migration Agency, 2018).

1.4.1 Rewards versus risks

In their critical review of migration and economic related research, Pfeiffer, Richer, Fletcher and Taylor (2008) concluded that the decision to migrate is based on an analysis where individuals weigh up the migration-related rewards versus the risks for themselves and their family. The most common driver of migration from lower to higher income countries is the prospect of improved economic circumstances. The economic gains are often distributed across the entire family, to those who migrate as well as to family members who stay in the country of origin (Pfeiffer et al., 2008). Remittances are the financial support provided by migrants to their families who stay in the country of origin. It improves their living conditions and access to health care and education (United Nations Migration Agency, 2018). According to the World Bank (2017), in 2016 migrants remitted around USD 249 billion to low- and middle-income countries.

In addition to economic benefits, the rewards of migration may extend to better employment and educational opportunities (Pfeiffer et al., 2008; United Nations Migration Agency, 2018). And, women who have migrated from societies in which patriarchal authority is dominant may experience greater personal freedom, including financial independence and greater decision-making ability, in the host country than they did in their country of origin (United Nations Population Fund, 2006). Hondagneu-Sotelo (1994) conducted a study using participant-observation, in-depth interviews and informal conversations held during home visits with 44 migrant women and men living the United States. They found that women who had migrated from Mexico to the United States were less willing than their male counterparts to return to their country of origin for fear of losing the autonomy they had gained while working in the United States.

Furthermore, the 'State of world population 2006: a passage to hope. Women and international migration' report prepared by the United Nations Population Fund (2006) stated that migrating to a new country may expose women to new gender and social norms which can promote their rights. They may gain greater equality in the host country.

Dominican migrants, living in the United States reported that their migrant husbands were more willing to help with unpaid household chores than they were while living in their country of origin (United Nations Population Fund, 2006).

The risks of migration are mainly described in terms of its social implications. Migrants often experience discrimination in the host country which is frequently based on race and gender (United Nations Population Fund, 2006). Rezazadeh and Hoover (2018) completed a systematic review of 166 Canadian studies exploring women's experiences of migration to Canada. The authors used a grounded theory approach and articles were grouped into research topics by using a three-step coding process. Of the 39 studies, that addressed cultural transitioning and gender roles five reported that migrant women from visible minorities experienced discrimination.

Furthermore, feeling socially isolated due to the loss of support networks, including extended family and friends, was commonly reported by migrants (Rezazadeh & Hoover, 2018).

For family members who remain in the country of origin, the absence of the family members who migrate may mean additional responsibilities and roles such as child rearing by grandparents (United Nations Population Fund, 2006).

For people who flee their home country because of fear for their safety and survival, migration is often perceived as the only option to find better life circumstances. The migration process is often unsafe and the destination and outcome uncertain (United Nations Migration Agency, 2018). These migrants are often forced to live for lengthy periods in refugee camps with a high degree of uncertainty until resettlement in receiving countries like United States, Canada or Australia (Global Migration Group, 2008; United Nations Population Fund, 2006).

1.5 Women as migrants

Before the 1960s, women rarely migrated unaccompanied. Most women migrated to be married, to join or accompany their husband, or their adult children under family reunification programs (Global Migration Group, 2008; United Nations Population Fund, 2006). Today, increasingly women migrate either alone or in the company of other women outside their family circle (United Nations Migration Agency, 2018). Many women migrate because of lack of employment opportunities, low wages, and poverty in their country of origin. Others migrate for the opportunity to expand their education and training or to obtain employment in more skilled positions, or to overcome employment discrimination based on their gender in their country of origin. Other reasons why women migrate include to escape an abusive partner or an oppressive culture, to gain greater independence and freedom, or due to political and civil unrest or environmental crises (United Nations Population Fund, 2006).

Women migrating for employment offers the prospect of a better life for them and their families (Global Migration Group, 2008). The increasing number of migrant women becoming the main income earner may advance gender equality in their country of origin. Providing the financial means to improve the lives of their family may raise women's status, independence and self-confidence. These women may pose as role models for others in their community who in response may follow their example and migrate to gain employment and support their family in their country of origin (Global Migration Group, 2008; Pfeiffer et al., 2008).

Nevertheless, migration is also associated with greater risks and challenges for women than for men. According to the 'International migration, health and human rights' report (2013) published by the International Organization for Migration, World Health Organization and United Nations Human Rights Office of the High Commissioner (2013), women who migrate independently for economic reasons, are more vulnerable to gender-based inequalities than their male counterparts. They are most likely to gain employment in lowly paid, unregulated industries such as domestic service or the entertainment industries. Both industries can lack national labour legislation and employees, most of whom are women, are at risk of human rights violations, exploitation and abuse.

Furthermore, Llacer, Zunzunegui, del Amo, Mazarrasa and Bolumar's (2007) position paper 'The contribution to a gender perspective to the understanding of migrant's health' asserts that in most countries gender role expectations continue to determine that women are the main carers of children. However, women who migrate for reasons of employment, are often forced to leave their children behind, as they are unable to care for them in the host country. This may lead to feelings of guilt for abandoning their children and pressure to settle as quickly as possible in the hope that their children may join them in the host country.

Migration undertaken with a low degree of choice is associated with risk of victimisation and discrimination related to gender before, during and after the migratory processes. Female migrants are vulnerable to rape, sexual coercion and sexual exploitations (Global Migration Group, 2008). The 'State of world population 2006: a passage to hope. Women and international migration' report (United Nations Population Fund, 2006) found that migrant women fleeing their country of origin because of safety concerns reported frequent coercion by male migrants for sexual favours in exchange for protection, food and shelter during their migration transition.

1.6 Health effects of migration

The World Health Organization (2018) defines health as: "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (webpage). The relationships between migration and health are complex.

1.6.1 Health of migrants

The circumstances under which migration takes place influences the health status of migrants. Migrants whose decision to migrate is made with a high degree of choice are more likely to be in good health at the time of migration than individuals who are fleeing their country of origin due to poverty or civil and political crisis (Llacer et al., 2007).

Patterns of health among migrants vary over time. In general migrants appear to have better health than the native-born population at the time of migration. This phenomenon has been called the 'healthy immigrant effect'. Kennedy, Kidd, McDonald and Biddle (2015) analysed immigration data from the USA, UK, Canada and Australia and compared the health of migrants with the health of the native population in their country of origin. The authors concluded that there are many possible explanations for the 'healthy immigrant effect' including that: individuals who chose to migrate are younger, healthier and better educated than those who do not; selection criteria determined by the host countries' immigration policies are often based on skills and health status; and the less healthy and successful migrants return to their country of origin.

Over time, though, some migrant populations report a decline in health and converge to the health profile of the native-born population in the host country (McDonald & Kennedy, 2004). Analysis of the Canadian National Population Health Survey and the Canadian Community Health Survey by McDonald and Kennedy (2004) and the analysis of the Australian National Health Survey by Biddle, Kennedy and McDonald (2007) found that migrants had a lower incidence of chronic diseases than the native-born population at the time of migration. However, over time the incidence of chronic diseases gradually converged to native-born levels. These studies concluded that exposure to and adoption of some health-related practices of the new culture may lead to a change in migrant's health behaviour explaining the decline in health status (Biddle et al., 2007; McDonald & Kennedy, 2004).

On the other hand, some migrant populations continue to report better health than the native-born population. Some studies suggest that these populations continue to adhere more closely to their health behaviours practiced in their culture of origin, thereby avoiding adverse health behaviours common in the host-country (Llacer et al., 2007).

Intuitively migrants are likely to experience challenges in the immediate period after arriving in the host country which may impact on their health. However, investigations examining the experiences of migration rarely include the time since migration as a factor that may affect health.

1.6.2 Changes and losses

Migration and resettlement can be a period of great psychological challenges (Hulewat, 1996). Significant stressors that may affect the health of migrants include securing meaningful employment and a reliable source of income, establishing a new home, negotiating gender roles, building new social and support networks and accessing health care (Meadows et al., 2001; Rezazadeh & Hoover, 2018).

Disenfranchised grief was conceptualised by Doka (1989) who defined it as “the grief that persons experience when they incur a loss that is not or cannot be openly acknowledged or publicly mourned or socially supported” (page 4). In their review of the medical literature about the unique risk factors for poor mental health among immigrant population Pumariega, Rothe and Pumariega (2005) concluded that losses associated with migration, including the loss of personal history, identity and reputation, can cause disenfranchised grief.

1.6.3 Culture and traditions

Resettlement entails learning about and adapting to a new culture and doing this while maintaining long held traditions, beliefs and practices from the country of origin can be difficult (Rezazadeh & Hoover, 2018). Migrants are required to re-examine and identify, which values and practices of their culture of origin they wish to retain and which values and practices of the host culture they are willing and likely to adopt. This process is integral in the re-establishing of migrants' lives (Rezazadeh & Hoover, 2018). The systematic review of women's experiences of migration to Canada by Rezazadeh and Hoover (2018) identified 39 studies investigating cultural transitioning among migrant women. Some studies found that women often experienced conflict between the cultural beliefs of their country of origin and those of the host country. This was linked to lower self-rated health in some migrant women. However, other studies concluded that women welcomed the gender roles of the host country enjoying the greater autonomy and reporting improved quality of life.

1.6.4 Self-agency to migrate

Women who migrate under a family migration program, may have had less say in the decision to migrate than those who migrate independently (O'Neil, Anjali, & Foresti, 2016). In particular, in paternalistic societies where decision making is largely the domain of male family members, women's ability to influence family decisions is often limited (United Nations Population Fund, 2006). Hence, women may experience the migration process and resettlement as an unwanted and psychologically distressing phase of life (Rezazadeh & Hoover, 2018).

1.6.5 Family migration, employment and traditional gender roles

Women who migrate may need to enter the paid workforce, often for the first time, while continuing to do all the unpaid domestic work. Those women whose self-identity is closely linked to the traditional gender roles of mother and care-giver may feel that their responsibilities to the family are compromised by their employment-related absence from the family home (Rezazadeh & Hoover, 2018). In two studies of migrant women living in Canada and United States participants reported a 'double burden' due to the demands of paid work and expectations that they fulfil their family role and that this impacted on their emotional health and well-being (Anderson, 1987; E. Im, Meleis, & Lee, 1999).

In addition, to the 'double burden' of paid employment and family commitments, migrant women are likely to be employed in lowly paid occupations with poor working conditions and limited labour laws to protect them from exploitation and abuse (Llacer et al., 2007; United Nations Population Fund, 2006). Rezazadeh and Hoover's (2018) literature review identified 28 studies addressing employment experiences among migrant women living in Canada. Some studies found that women who had been employed in their country of origin experienced 'downward mobility' as a result of the non-recognition of their foreign qualifications and their limited English language proficiency. This 'downward mobility' meant that women were rarely employed in their field of specialisation and were required to work in less skilled and lower paid positions. 'Downward mobility' is commonly reported by migrant women who have migrated from countries that have a lower economic classification according to the World Bank than the host country (Binfa, Robertson, & Ransjo-Arvidson, 2010; Markovic, Manderson, & Kelaher, 2002; Resick, 2008). Binfa and

colleagues (2010) studied the perceptions and experiences of migration and how these experiences may have impacted on the health and well-being among 21 Chilean-born women in midlife living in Sweden. They found that most felt 'deskilled' due to the lack of validation of the degrees they had obtained in their country of origin. Similarly, Kelaher, Potts and Manderson (2001) reported that migrant women born in the Philippines and living in Australia were mostly employed in hospitality, as domestic help or in family day care, although they often held tertiary qualifications from their country of origin. This undervaluing of their professional skills affected the women's well-being (Binfa et al., 2010; Rezazadeh & Hoover, 2018).

1.6.6 Social support and connection

Meaningful, remunerative employment can serve as a source of social engagement and support for newly migrated people (United Nations Population Fund, 2006). De Maio and colleagues (De Maio et al., 2017) argue that a lack of social networks and support may prevent migrant women with children from joining the paid workforce. The 'Empowering migrant and refugee women' report (De Maio et al., 2017) prepared by the Australian Institute of Family Studies for the Australian Government, Department of Social Services found that in general, irrespective of their level of education, migrant women who have children are less likely to be employed than Australian-born women with the same number of children.

Establishing new social support networks is often necessary, particularly for those who have left their extended families in their country of origin (Meadows et al., 2001). The loss of familial support can be particularly difficult for women who used to draw emotional support from their family (Anderson, 1985; Meadows et al., 2001). However, some studies in Rezazadeh and Hoover's (2018) review reported that migrant women prefer to seek emotional support from 'outsiders' rather than 'insiders' from their community because they perceive them as more trustworthy in terms of protecting confidentiality and draw on fewer constraining values.

Choudhry (2001) explored the resettlement experiences of 10 older Indian-born migrant women who moved to Canada to be reunited with their adult children and their families.

Using in-depth interviews and a thematic analysis the author found that participants were at increased risk of poor mental health due to loneliness and social isolation. Feelings of dependency and powerlessness can be exacerbated by family conflict with the younger generation as they adopt the values and traditions of the host country.

1.6.7 Vulnerable to intimate partner violence

Intimate partner violence (IPV) has been defined by Brieding, Basile, Smith, Black and Mahendra (2015) as the “physical violence, sexual violence, stalking and psychological aggression (including coercive tactics) by a current or former intimate partner (i.e., spouse, boyfriend/girlfriend, dating partner, or ongoing sexual partner)” (page 11). Ten of 166 studies included in the ‘Women’s experiences of immigration to Canada: a review of the literature’ by Rezazadeh and Hoover (2018) identified IPV as a predictor of migrant women’s health. Differences in gender roles between the host country and the country of origin, patriarchal family structures and certain types of visa classes render migrant women particularly vulnerable to abuse (Rezazadeh & Hoover, 2018; United Nations Population Fund, 2006; Vaughan et al., 2016). Women who migrate under a family reunification program are often in precarious visa situations as their visa may be linked to their partner’s visa for legal status and validity. The ‘Promoting community-led responses to violence against immigrant and refugee women in metropolitan and regional Australia. The ASPIRE project: research report’ (2016) concluded that migrant women report lower use of IPV-related services than native-born women from the host country, mainly because of fear of reprisal by their local community and lack of host country’s language proficiency. In addition, lack of knowledge of available IPV-related services, how to access them and fear of being deported without their children if their partner withdraws the support for their visa can be barriers for care for migrant women (Rezazadeh & Hoover, 2018; Vaughan et al., 2016).

1.6.8 Conflict, crisis and disaster

Women who are forced to leave their country of origin due to the need to escape conflict and natural disasters are particularly vulnerable to gender-based violence before, during and after the migration process (United Nations Population Fund, 2006). Many women

spend lengthy periods in refugee camps in neighbouring countries and are likely to have experienced or witnessed significant trauma – a stressful event as perceived by the person – and disturbances to their lives (Browne, 2006). In refugee camps women and children often miss out on food, which is usually scarce, and this leaves them susceptible to illness. Poorly designed camps may add to the risk of women being subjected to violence. Toilets and showers are often located at the edge of the camps where women are more exposed to being attacked and raped, which can result in unwanted pregnancies (Australian Government, 2013).

‘The international migration and human rights’ report (Global Migration Group, 2008) found that most women who are fleeing lower income countries are likely to have had less opportunity for formal education in their country of origin, have had little experience in the paid workforce and this coupled with inadequate language proficiency makes their resettlement experience extremely challenging (Llacer et al., 2007).

The lack of formal schooling and education opportunities, in addition to limited English language proficiency among migrant women on humanitarian visas puts them at risk of poverty. The ‘Empowering migrant and refugee women’ research report (De Maio et al., 2017) prepared by the Australian Institute of Family Studies for the Australian Government stated that migrant women on Humanitarian Program visas are in the lowest income percentile and have the lowest recorded formal employment rate. Their accumulated disadvantage of being a migrant, having limited education and language proficiency, and having low socio-economic status are linked to poorer health and health outcomes (De Maio et al., 2017).

In addition, the ‘Getting settled: women refugees in Australia’ report (Australian Government, 2013) published by the Australian Government Department of Social Services stated that women who entered Australia via the Humanitarian Program ‘Women at Risk’ visa were less likely to have family living in Australia than other migrant women and at least 30% had experienced trauma and torture.

Torture has been defined by the World Medical Association (1975) and adopted by the 29th World Medical Assembly, Tokyo, Japan in October 1975 as

... the deliberate, systematic or wanton infliction of physical or mental suffering by one or more persons acting alone or on the orders of any authority, to force another person to yield information, to make a confession, or for any other reason. (website)

Williams and van der Merwe (2013) assessed the peer-reviewed literature of trauma and torture related disorders and available treatment options. In their review the authors concluded that experiences of trauma and torture are associated with poor mental health including depression and anxiety.

1.7 Barriers to health care

There are a number of systematic literature reviews of studies investigating migrant women's health care experiences. Most reviews are of studies of sexual and reproductive health care experiences with a specific focus on prenatal, perinatal and postnatal care experiences (Higginbottom et al., 2015; Mengesha et al., 2016; Mengesha, Perz, Dune, & Ussher, 2017; Santiago Mda & Figueiredo, 2015; Small et al., 2014; Winn, Hetherington, & Tough, 2017). This body of research shows that the most common access barriers to health care are: unfamiliarity with the health care systems and services including how to arrange appointments; cultural perceptions about health and health care; limited host language proficiency; and lack of information in relevant community languages (Finney-Lamb, 2002; Higginbottom et al., 2016; Kalich, Heinemann, & Ghahari, 2016; Mengesha et al., 2016; Santiago Mda & Figueiredo, 2015; Sheikh-Mohammed, Macintyre, Wood, Leask, & Isaacs, 2006; Small et al., 2014; Zanchetta & Poureslami, 2006).

1.7.1 Health care system

The World Health Organisation (WHO) (2013b) states that

...a good health system delivers quality services to all people, when and where they need them. The exact configuration of services varies from country to

country, but in all cases, it requires a robust financing mechanism; a well-trained and adequately paid workforce; reliable information on which to base decisions and policies; well-maintained facilities and logistics to deliver quality medicines and technologies. (website)

Health care systems around the world vary but, in most countries, there is a two-tiered health care system, offering a mix of free and fee-for-service health care (Schutte, Acevedo, & Flahault, 2018).

In lower income countries, ongoing under-resourcing and lack of strategic health plans mean that health care systems largely focus on cure and interventions rather than health promotion and prevention for non-communicable diseases (NCDs) (Global Health Workforce Alliance, 2018a, 2018b, 2018c). In contrast, many high-income countries increasingly concentrate on health promotion including health screening and health maintenance in national health policies and health plans in order to reduce the 'Burden of Disease' (Australian Government, 2011; Tam Truong Donnelly & William McKellin, 2007).

The 'Burden of Disease' concept describes death and loss of health due to diseases, injuries and risk factors and was developed in the 1990s by the Harvard School of Public Health, the World Bank and the World Health Organization (World Health Organization, 2004). The burden of a disease is calculated by estimating the years of life a person loses due to early death because of the disease, and the years of life a person lives with disability caused by the disease. Adding 'Years of Life Lost' and 'Years of Life lived with Disability' gives a single-figure estimate of disease burden (World Health Organization, 2004).

In order to access health care, people need to know how to navigate the health care system. Mengesha, Perz, Dune and Ussher's (2017) mixed-methods investigation of 79 health care providers providing sexual and reproductive care to refugee and migrant women in Australia, found that women mainly accessed hospital-based care for illnesses and that the concepts of health promotion and health screening were unfamiliar to them. Higginbottom and colleagues (2015) completed a systematic review of 24 Canadian studies - 10 qualitative and 14 quantitative - about the experiences of immigrant women accessing maternity services. Studies were critically appraised and graded low, low-medium, medium, medium-

high and high quality. Of the 24 studies, nearly all were graded as medium, medium-high and high quality. Using a narrative synthesis, the authors supported Mengesha et al's (2017) findings and added that overall study findings indicated that migrants did not know how to navigate the health care system; underutilised services due to lack of service awareness; and cited insufficient support in the facilitation of accessing services.

Furthermore, health care service hours are described as inflexible and migrant women are unable to access services due to work and family related commitments. In addition, lack of transport options to access services have been described as a barriers for migrant women to access health services (Higginbottom et al., 2015; Mengesha et al., 2016; Morris, Popper, Rodwell, Brodine, & Brouwer, 2009).

Lack of familiarity with available health services may have unintended consequences including lower attendances for health screening programs and lower participation in health promotion programs (Aminisani, Armstrong, & Canfell, 2012).

1.7.1.1 Health Care Providers

In addition to the structural and procedural aspect of the health care system, the health care providers and the available resources play a significant part in how migrant women experience health care. Mengesha, Dune and Perz (2016) completed a systematic review of 22 studies investigating migrant women's perceptions and experiences of accessing sexual and reproductive health care in Australia. Some of these studies found that women identified health care providers' behaviour and practice including unfriendly mannerism, lack of time and clear communication and inclusion in decision-making as barriers in accessing health care. Furthermore, four studies reported that some women expressed concerns about the lack of cultural knowledge and competency (Mengesha et al., 2016). Perceived stigma and discrimination based on race contribute to the barriers in accessing health care which was identified by some studies in Small and colleagues (2014) systematic review of 22 studies of migrant women's experiences of maternity care in five countries. In addition, migrant women often prefer female providers and providers from their country of origin, preferences which may not be accommodated (Mengesha et al., 2016).

Rezazadeh and Hoover (2018) reviewed 42 studies investigating mental health and well-being among migrant women. The authors identified cultural factors and perceived lack of cultural sensitivity as barriers seeking mental health care. Women often reported feeling 'misunderstood' and that the solutions offered for their concerns were not practical and left them feeling frustrated. This in part appears to be because health care providers were unable to place women's concern in a cultural and social context and hence were unable to provide culturally competent care and support.

Anderson's (1987) research using in-depth interviews with 46 migrant women living in Canada, reported that health care providers' recommendation to 'make time for themselves' in order to reduce stress and improve emotional well-being was perceived as unhelpful. Since the women were engaged in paid employment, attended their traditional roles as mother and care giver, and were solely responsible for the management of the household they were unable to follow the advice. Health care providers' inability to understand women's position in their cultural context may lead to the perception of unsatisfactory care.

In addition, Binfa et al. (2010) found that some migrant women in Sweden expressed confusion regarding treatments and information provided by their health care provider. This at times lead to a disappointing relationship with the health care provider, conflict and mistrust in the health care system.

1.7.1.2 Culture and Health

Culture shapes perception of health, health behaviours and health beliefs (Andrulis & Brach, 2007; Bottomley & de Lepervanche, 1990).

In Australia, registry data suggest that migrant populations have a lower prevalence of health screening, including breast screening and cervical screening than people who were born in Australia (Australian Institute of Health Welfare, Singh, & de Looper M., 2002; Lam, Kwok, & Lee, 2018). Studies investigating health screening participation among migrant women have found that cultural beliefs may be partially responsible for the lower participation in health screening among migrant communities. Kwok, Sullivan and Cant

(2006) examined attitudes towards breast screening among Chinese-born women living in Sydney, Australia. They found that participants viewed their breasts as very private body parts closely linked to sexuality and womanhood. These culturally informed perceptions of breasts prevented study participants from practicing breast self-examination, attending clinical breast examinations and mammography. Furthermore, breast cancer was believed to be caused by promiscuity and women thought of it as a cancer predominantly affecting 'western' women and not women from Southeast Asia. Most women saw no reason to suspect that they may have a disease, if they were asymptomatic. Consistent with these health beliefs, they focused on preserving and promoting overall health and well-being in everyday life rather than attempting to detect hidden disease through screening (Kwok & Sullivan, 2007).

Similar beliefs were expressed by Former Soviet Union (FSU)-born women living in the United States. Their main reason for not participating in health screenings was that in their country of origin screening was seen as 'looking for trouble' (Resick, 2008).

Rezazadeh and Hoover (2018) attribute low participation in health screening among migrants to cultural preferences to keep sexual and reproductive health matters private; lack of knowledge about the medical reasons for screening; self-perception of low risk; lack of encouragement for screening by health care providers; limited access to female health care practitioners; and the belief that illness can be prevented by diet and lifestyle.

1.7.1.3 Language Proficiency

Limited language proficiency is a commonly cited barrier to accessing health care (Mengesha et al., 2016; Tsai & Lee, 2016). Migrant women often report poor language proficiency, in part explained by the practical difficulties they experience in attending formal language classes. In one study using in-depth interviews with 30 migrant women in Canada, lack of childcare, family-related reasons, transport and financial challenges were cited as reasons for being unable to take advantage of and participate in language classes (Kilbride & Ali, 2010). Due to limited language proficiency, migrant women are often dependent on others to accompany them to health care appointments to interpret.

The Australian Standard of Care recommends the use of trained interpreters and warns against using family members or friends as interpreters in health care settings (Queensland Government, 2007). In particular, in sexual and reproductive health, it is inappropriate to use male family members as interpreters. Husbands or other family members may be withholding or distorting information and due to the emotional or sensitive nature of the issues may only interpret what they judge the patient needs or should know and thereby control women's health care decisions (Mengesha et al., 2017). Furthermore, if family members' language skills are limited, this can compromise the quality of care women receive. And, if children are used as interpreters, this may undermine the parent-child relationships (Mengesha et al., 2016; Queensland Government, 2007).

Both migrant women and their health care providers expressed concerns about their lack of access to qualified interpreters (Mengesha et al., 2016). Furthermore, although, telephone interpreting services are widely available in Australia four studies included in Mengesha and colleagues' (2016) systematic review reported that these were not always used or offered. Hence, women relied on body language or engaged their partners, neighbours or family members to act an interpreter. Higginbottom and colleagues' (2015) systematic review of 24 studies investigating migrant women's experiences of maternity-care services in Canada found that three studies reported that the lack of interpreter services prevented some migrant women from asking questions or expressing concerns. Small and colleagues' (2014) systematic review of migrant women's experiences of maternity care in five countries revealed that language difficulties, lack of information in community languages and insufficient access to interpreting services were commonly cited barriers to satisfactory care experiences.

Navigating the health care system is the process by which individuals move into and through the multiple parts of the health care enterprise to access and use services in a manner that maximize the likelihood of positive health outcomes. The ability to seek timely, appropriate, and affordable information and care within the constraints of a complex health care system is an essential component of health literacy (Sorensen et al., 2012).

Chapter 2: Health literacy

2.1 History of ideas

The concept of health literacy has evolved over time and relates to individuals' ability to find, interpret and use health-related information which is relevant to health care, disease prevention and health promotion (Sorensen et al., 2012). Health literacy emerged from investigations linking low literacy to poor health outcomes and is supported by evidence from quantitative and qualitative research (DeWalt, Berkman, Sheridan, Lohr, & Pignone, 2004). The significance of health literacy as a determinant of health has resulted in governments including Australia, United States and some European countries adopting national policies and programs to improve health literacy in their populations (Nutbeam, McGill, & Premkumar, 2018).

2.1.1 Literacy and health outcomes

Literacy is a term linked to education. It is commonly defined as the ability to read, write and understand texts (Nutbeam et al., 2018). The National Adult Literacy Survey (1993) was conducted in 1992 in the United States (Kirsch, Jungeblut, Jenkins, & Kolstad, 1993).

Nationwide over 26,000 adults 16 years and older participated in the survey. Data were collected in face to face interviews by over 400 trained interviewers. The survey assessed prose, document and numeracy literacy using a scale for each domain ranging from 0 to 500 points. The scores on each scale represented a level of ability in that particular dimension of literacy. Five literacy levels were defined for each of the scales: Level 1 (ranging from 0 to 225), Level 2 (226 to 275), Level 3 (276 to 325), Level 4 (326 to 375), and Level 5 (376 to 500). For example, a score below 225 on the document scale indicates that an individual has very limited skills in processing information from tables, charts, graphs, and maps or entering information on formal documents such as job application forms. A score above 375 indicates advanced skills in performing a variety of tasks that involve the use of various documents. The survey reported that nearly 50% of participants scored in the lowest two levels and had difficulties integrating or synthesising information from complex and lengthy texts and to perform calculations that involved two or more sequential operations. Consequently, they had limited ability to function in society to achieve their goals, and to

develop their knowledge and potential. These findings lead to the interest and growth in research relating to the relationship between literacy and health (Weiss, 2015).

DeWalt and colleagues (2004) conducted a systematic review of 44 published peer-reviewed articles about the relationship between literacy and health outcomes. The studies examined the relationships between reading ability and knowledge of health outcomes or health services, health service use and health outcomes. The quality of the articles included in the review were assessed and graded according to adequacy and comparability of study populations, validity and reliability of literacy measurements, appropriateness of outcome and analysis and adequacy of confounding. Of the 44 studies, 25 were rated as 'good' and the remaining as 'poor to fair'. The number of participants ranged from 34 to over 3000 and most studies presented the demographic characteristic of participants including age, ethnicity and education. The review concluded that reading ability is related to knowledge about health outcomes and health services, health outcomes and health service use. Individuals with low literacy were estimated to be between 1.5 and 3 times more likely to experience poor health outcomes than people with adequate literacy skills.

2.1.2 Definitions of health literacy

The earliest definition of health literacy focused on the individual's capacity to understand and make meaning of words and numbers in a medical context. From this initial definition the concepts broadened and the Health Promotion Glossary prepared by Nutbeam (1998) for the World Health Organization later defined health literacy as "the personal, cognitive, and social skills which determine the ability of individuals to gain access to, understand, and use information to promote and maintain good health" (p. 10). The focus was on the individual and their cognitive capacity.

In 2012, Sorensen and colleagues undertook a review of health literacy definitions and conceptual models. Based on the 17 definitions identified in the literature, two research teams working independently performed a content analysis by: coding and condensing definitions; presenting this coding for discussion to a panel of health experts from the European Health Literacy Consortium; and lastly integrating their feedback into a final analysis based on which they propose the following definition:

Health literacy is linked to literacy and entails people's knowledge, motivation and competences to access, understand, appraise and apply health information in order to make judgements and take decisions in everyday life concerning healthcare, disease prevention and health promotion to maintain or improve quality of life during the life course (Sorensen et al, 2012, p. 3).

2.1.3 Conceptual models of health literacy

The concept of health literacy moves beyond the individual's capacity and recognises health literacy as an interaction between the individual and the health care system (Institute of Medicine, 2004). In 2004, the Institute of Medicine of the National Academies in Washington, DC, USA (Institute of Medicine, 2004) stated that "health literacy is a shared function of social and individual factors which emerges from the interaction of the skills of individuals and the demands of social systems" (p. 32). This statement acknowledges that health literacy is more than an 'individual-level construct' and that external factors contribute to health literacy.

Sorensen and colleagues' (2012) review of the literature identified 12 conceptual models of health literacy and their three components; individual cognitive skills and abilities, antecedents which are factors influencing cognitive skills and capacity, and consequences of health literacy.

2.1.3.1 Individual cognitive skills and ability

The dimensions of individual cognitive skills and actions relating to health literacy are described broadly as reading, writing, listening, communication and arithmetic's skills by the Institute of Medicine (2004); and verbal fluency, listening skills, memory and navigation skills by Paasche-Orlow and Wolf (2007). Lee, Arozullah and Cho (2004) provide specific descriptors of individual skills including disease and self-care knowledge, health risk behaviour, engagement in preventive care and medication compliance. The capacity to use health information in decision making and successful functioning in the health consumer role has been discussed by Speros (Speros, 2005) who describes the cognitive skills required

to make well informed health-related decisions and to enable individuals to become active partners in health care.

Nutbeam (2000) and Manganello (2008) grouped and described the individual's skills and competencies of health literacy into functional, interactive and critical health literacy. Functional health literacy describes the basic reading and writing skills required to obtain relevant health information and to use the information for a range of defined activities. Interactive health literacy refers to more advanced literacy skills that enable individuals to draw out information and make meaning of different forms of communication and apply these to changing circumstances. Critical health literacy is the most advanced level of health literacy and refers to the ability to critically analyse and judge information from a range of sources and relating these to a range of health determinants. Individuals who possess all three health literacy skills have greater control over their life and the circumstances that impact on health and well-being than those with fewer health literacy skills (Nutbeam, 2000). In addition, Manganello (2008) considered media literacy and describes it as the ability to evaluate and judge information provided in the media. Hence, Nutbeam (2000) and Manganello (2008) extend the concept of health literacy beyond the ability to understand written information in the medical context and include components that apply in a public health context, commonly referred to as public health literacy (Sorensen et al., 2012).

2.1.3.2 Antecedents - factors influencing cognitive skills and capacity

Antecedents are factors that impact health literacy. Most health literacy models provide a comprehensive list of antecedents that can be grouped broadly into psycho-social and personal factors, environmental and cultural influences. For instance, Lee and colleagues (2004) list gender, socio-economic status, income, health insurance status and ethnicity as antecedents of health literacy. Paasche-Orlow and Wolf (2007) extend this list and add culture and language, education, age, race, social support and personal abilities including vision, hearing and communication skills. Others use broader descriptors of antecedents including demographics, socio-political, psycho-social and cultural factors, and system factors such as political, social and environmental forces respectively (Freedman et al., 2009; Zarcadoolas, Pleasant, & Greer, 2005).

2.1.3.3 Consequences of health literacy

Consequences of health literacy refer to the outcomes of adequate and inadequate health literacy and their effects on the individual and society. Individual consequences of adequate health literacy are described as the ability to be an active participant in health care through knowledge of the health care system, health determinants and self-management skills; and having better health outcomes through better health behaviours and attitudes (S. Y. Lee et al., 2004; Manganello, 2008; Nutbeam, 2000; Paasche-Orlow & Wolf, 2007). Increased health-related knowledge and participation in population health programs are other beneficial consequences of adequate health literacy (Institute of Medicine, 2004; Manganello, 2008; Speros, 2005). Societal and community consequences of adequate health literacy are mainly described in term of less health service use and decreased health care costs (Sorensen et al., 2015; Watson, 2011).

2.1.4 Integrated Model of Health Literacy

Following their review of health literacy definitions and conceptual models Sorensen and colleagues (2012) concluded that none of the existing models included all relevant elements and proposed the Integrated Model of Health Literacy (IMHL) as an alternative (Figure 2). This model extends existing public health literacy models proposed by Nutbeam (2000) and Manganello (2008) and places health literacy into three specific health and wellbeing contexts.

The model acknowledges that health literacy is a process which involves consecutive steps to access, understand, appraise and apply health-related information and services. Inherent in these steps are the individual's knowledge, motivation and competencies which incorporate the qualities of functional, interactive and critical health literacy skills as described by Nutbeam (2000). According to the IMHL, this process generates knowledge and skills needed to navigate the three domains of the health care continuum; the individual as an ill person and patient within a health care setting, the individual at risk of disease in disease prevention, and the individual who participates in health promotion across all societal sectors including the community, work place, educational system, political system, and economy.

The ability to follow the consecutive steps of the health literacy process in each domain allows individuals to take control over their health by finding the necessary information, understanding the information, critically judging and analysing it and acting independently to engage in behaviour to overcome personal, structural, social and economic barriers to health.

The model also proposes that health literacy capacity and skills develop and broaden over a person's lifetime due to the experiences of different health-related demands and interaction with the health care system.

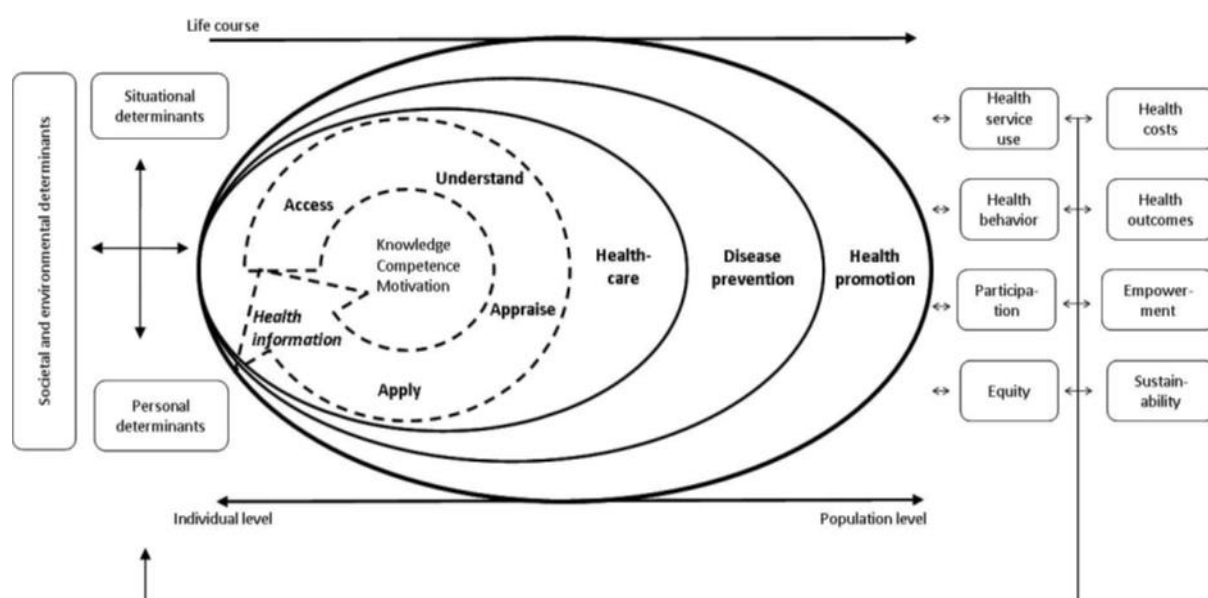


Figure 2: Integrated Model of Health Literacy.

2.1.4.1 Antecedents of health literacy according to the IMHL

The IMHL describes the personal, situational, and societal antecedents of health literacy. Personal antecedents are age, race, gender, socio-economic status, education, occupation, employment, income and literacy. The situational determinants are the physical environment, family and peer support, social influences and media use. Finally, the societal determinants include culture, language, political forces, societal system and demographic situation (Sorensen et al., 2012). Each antecedent might not influence health literacy

independently. Rather, they are likely to interact to influence health literacy in different patterns in different situations of immigrant women in midlife.

2.1.4.2 Consequences of low health literacy according to the IMHL

Sorensen and colleagues' (2012) group consequences of low health literacy into eight areas, representing individual and population level consequences. At individual level low health literacy is associated with adverse health behaviour leading to poorer health outcomes. Low health literacy is also linked to increased use of emergency health services which has economic consequences for both the individual and the population. For the individual, more health care use leads to greater personal health care expenses and at the population level it leads to higher expenditures by health care systems. At individual level poor communication between the health care user and health care system can lead to unsatisfactory, unsafe and poor quality health care. At population level individuals with inadequate health literacy are unlikely to participate in public and private discussions about health-related topics, and may miss out on a range of health promoting activities. Individuals with inadequate health literacy skills are also likely to feel disempowered and therefore have less control over their health and well-being (Sorensen et al., 2012).

2.2 Health literacy and migration

The International Migration Report 2015 prepared by the Department of Economic and Social Affairs of the United Nations Secretariat (United Nations, 2016) stated that although migration often has many benefits for people, migrants remain among the most vulnerable members of society. Migrants are often paid less, work longer hours, generally have less job security than national workers and are therefore at greater risk of morbidity and mortality than the native-born population. In the context of migration, evidence shows that not speaking the dominant language is a barrier for health literacy, and that low health literacy and self-reported poor health is more common among migrant than native populations (Australian Commission on Safety and Quality in Health Care, 2014; Wangdahl, 2018; World Health Organization, 2013a).

Two systematic reviews have examined health literacy in the context of migration. A review of 21 studies of migrant health literacy in the European Union countries identified eight

general contexts in which migrant health literacy research has been conducted. These were health promotion and communication; chronic disease management; disease prevention; assessment and measurement of health literacy; culturally competent care; ethnic inequalities; migrant health and rights; and maternal care (Ward, Kristiansen, & Sorensen, 2019). The authors identified that definitions of migrants varied, and only a small number of EU member states were represented due to the inclusion criteria that articles had to be published in English. Most studies in this review identified that limited language proficiency, low levels of formal education, and low socio-economic status were associated with low health literacy and that this influenced health behaviour, self-management of disease, and lead to poorer health outcomes among migrants.

Fernandez-Gutierrez, Bas-Sarmiento, Albar-Marin, Paloma-Castro and Romero-Sanchez's (2018) systematic review of nine studies examined health literacy interventions and their effects on health literacy among migrant population. Although the selected studies used validated instruments to assess health literacy there was high variability in the measuring strategies, instruments used and range of monitoring times which made it impossible to perform a meta-analysis of the data. Consequently, a narrative analysis was conducted. Two of the nine studies were appraised as good quality and the remaining seven were considered to be of moderate quality. Quality limitations included that the variability of the health literacy assessment instruments used made comparing results difficult; the use of quasi-experimental research designs and use of convenience sample limited interpretation of intervention effectiveness; most instruments measured functional health literacy and the psychometric properties of some instruments were not provided. The main findings of these studies were that health literacy interventions improved functional health literacy; however, they did not change migrants' attitudes and health behaviour relating to recommended health behaviours. A possible explanation for this may be that health literacy intervention studies have ignored dimensions of the concept of health literacy such as cultural norms, beliefs and practices.

Although, some of the studies included in these reviews considered health beliefs and sociocultural diversity as antecedents to health literacy, the relationship between culture

and health literacy has rarely been explored in the literature. This suggests a knowledge gap relating to health literacy among migrants.

2.2.1 Culture as a determinant of health literacy

Culture refers to beliefs, values, practices and social behaviour which are learned from infancy through interactions with the environment including family, friends and others. Consequently, anthropologists Bottomley and de Lepervanche (1990) proposed that health-related beliefs, behaviours and practices are shaped by culture. Sorensen and colleagues' (2012) IMHL has identified culture as part of the societal and environmental determinants of health literacy.

2.2.1.2 Cultural construct of health and illness

The cultural influences on the construct of health and illness have been described by Andrews and Boyle (2008) in '*Transcultural Concepts in Nursing Care*'. They propose that cultural values explain differences in perceptions of and beliefs about disease aetiology, diagnosis, appropriate treatments and care. In addition, Kreps and Sparks' (2008) review of the social science and medical literature using a narrative synthesis suggests that differing cultural beliefs and values about illness and treatments by health care consumers and health care providers can inhibit open communication. To overcome this, migrants may seek out health care providers from similar cultural backgrounds with whom they share health-related beliefs. For this reason, individuals who have beliefs about health and health care that differ from those of the host country may not follow the host country's recommended health care practices (Bottomley & de Lepervanche, 1990).

2.2.1.3 Construct of health and illness influencing health care participation and health literacy

Investigations exploring low levels of participation in cancer-related health screening among migrants, report that this in part is explained by culture-specific views on the causes of cancer. For example, the role of culture in breast screening was explored among 20 migrant women from China living in Australia by Kwok, Sullivan and Cant (2006) using in-depth interviews. They found that participants associated breast cancer with women of Caucasian heritage, and with being sexually promiscuous. Based on these beliefs participants viewed

themselves as unlikely to develop breast cancer explaining the low rates of participation in breast cancer screening programs. In a review of the literature, Austin, Ahmad, McNally and Stewart (2002) examined factors influencing participation in breast and cervical cancer screening among Hispanic women living in the United States. The authors confirmed Kwok and colleagues' (2006) finding and added that fatalism, the belief that there is little one can do to alter one's fate, embarrassment and shame associated with exposing private body parts, and religious beliefs that cancer is a sign of punishment have also been reported as reasons for low participation in mammography and cervical cancer screening programs.

Shaw, Huebner, Armin, Orzech and Vivian (2009) conducted a literature review in which they examined the cultural influences on health literacy, cancer screening and chronic conditions managements. They found that cultural variations in beliefs about health and disease in part explain motivations to access health information and actively participate in decision making about health care. In addition, religious beliefs and misconception about 'Western medicine' were cited as barriers for adequate health literacy among migrants. For example, Smeeton, Rona, Gregory, White and Morgan (2007) investigated parental beliefs about management of childhood asthma among South Asian born migrants and UK born people. They found that cultural beliefs including that asthma prevention medication could lead to addiction and do more harm than good motivated South Asian born parents to withhold this asthma preventer medication.

Bennett-Kimbrough (2007) examined health literacy as a contributor to health disparities among migrants living in North Carolina, United States. Her qualitative study using seven focus groups included 43 migrants from East Asia, Africa, South and Middle Americas reported that family and friends are the initial sources of health information and care before formal health information sources are accessed either through printed information or health care providers. Furthermore, the study found that health information seeking outside the known and family environment is not encouraged because health is a private matter and family and friends can be trusted as sources of information (Bennett-Kimbrough, 2007).

Active participation in health care in which health consumers and health care providers engage in the process of shared-decision making is promoted in contemporary high-income

health care settings (Jonkers, Richters, Zwart, Ory, & van Roosmalen, 2011). This is in contrast to the traditional 'doctor knows best' model in which the provider directs the patient on health matters and the patient follows instructions. In cultures where the traditional doctor-patient relationship is still prevailing, patients are likely to follow 'doctor's orders' and are unlikely to ask health professionals for additional information about health matters that concern them or take part in the decision making about treatment and care options (Bennett-Kimbrough, 2007).

2.2.2 Language as a determinant of health literacy

The Integrated Model of Health Literacy proposes that language is an antecedent that affects health literacy. A systematic review of 111 articles examining the relationship between low health literacy and health outcome was completed by Berkman, Sheridan, Donahue, Halpern and Crotty (2011). The authors identified that the often complex and specific language used in health care environments contributes to difficulties in understanding for instance hospital and medical information related forms, and medical and treatment instructions. To overcome language barriers, strategies to improve health communication between health care consumers and health care environment have been recommended and included in health literacy policies for example the European Union (Health Literacy Centre Europe, 2015), Australia (Australian Commission on Safety and Quality in Health Care, 2014), and United States (U.S. Department of Health and Human Services, 2010). These strategies include guidelines for health care organisation how to review and improve the content and format of text-based information and translating health information into community languages.

2.2.2.1 Readability of health-related resources

The 1992 National Adult Literacy Survey (Kirsch et al., 1993) found that nearly half of American people were unable to follow written medical treatment instructions. The vernacular of health professionals and in health information was found to be too difficult to understand by a large proportion of the general population. As a result, health education manuals and writing guidelines for health-related information have been developed,

recommending that health information material should be written at United States grade 5 reading levels (M. Wilson, 2009).

This was followed by evaluation research investigating whether these guidelines have been implemented and whether they had achieved the expected outcome. Reading levels can be assessed with a variety of algorithms, most commonly through analysis of word and sentence difficulty in running text. McInnes and Haglund (2011), Charbonneau (2012), and Cheng and Dunn (2015) examined the readability of text-based health information provided on websites using validated readability assessment tools. The Flesch-Kincaid (F-K) tool measures readability based on a statistical formula which includes the number of words per sentence, number of affixes and the number of references to people (Flesch, 1948). The Simple Measure of Gobbledygook (SMOG) instrument determines reading level by using three 10-sentence samples, counting all the words that have more than 3 syllables in each sentence and using a mathematical formula to calculate the final score. The Flesch Reading Ease (FRE) is also calculated based on a formula that considered sentence length and average number of syllables per word within these sentences. Each instrument yields a set of scores. The scores of the F-K and SMOG are in the form of grade level, equivalent to the Western formal education required to understand a text passage. The FRE produces a reading score from 0 to 100, with 0 being the hardest to read and 100 as the easiest to read (M. Wilson, 2009).

McInnes and Haglund (2011) assessed 352 general health information websites on readability. A list of search terms was created based on the 10 most common causes of mortality and 10 most common burden of disease in high income countries as reported in the 'Global burden of disease' report by the World Health Organization (World Health Organization, 2004). After removal of overlapping conditions 13 causes of mortality and burden of disease were included in their search. The five most commonly used search engines were selected and the first 10 retrieved search results were included in the review. In order to increase reliability in their test results they assessed the websites using multiple readability assessment instruments including F-K, SMOG and FRE. The authors concluded that most of the websites were rated as 'difficult' and none of them had implemented the recommended grade 5 reading level.

An assessment of 25 menopause information websites was conducted by Charbonneau (2012). The author chose two of the most commonly used search engines Google and Yahoo and entered menopause as a search term. Of the 25 selected websites 11 were commercial websites, six US government sponsored, five from non-profit organisations and three from professional associations of health providers. Charbonneau applied the FRE and the F-K readability assessment tools to the content of the websites and concluded that all but one, a government sponsored website, exceeded the recommended reading level.

Cheng and Dunn (2015) conducted a readability assessment of Australian health information websites with information on 12 common medical conditions. The conditions were selected based on the National Health Priority Areas (Australian Institute of Health and Welfare, 2013). It was assumed that these 12 conditions would represent the health topics most commonly searched for by Australians. The authors were unable to identify reliable reading ability data for Australian adults and therefore determined readability based on the recommendations by the South Australian Health Department which uses grade 8 as a benchmark (SA Health, 2013). Of the 137 websites assessed with the F-K, SMOG and FRE readability tools, all exceeded the grade 8 reading levels and only seven provided health information in languages other than English. The findings are not comparable with other international studies due to the higher reading level used to assess the websites' readability.

These reviews suggest that the readability of online text-based material is above the recommended reading level. Hence, the understanding, evaluating and using of health-related information remains out of reach for a large proportion of the locally born population. Given that a large proportion of native speakers find health-related information difficult to understand, and the apparent lack of information in other languages, it is reasonable to assume that persons from different linguistic backgrounds experience additional difficulties understanding, evaluating and using health-related information.

2.2.2.2 Written and verbal communication

Investigations exploring health literacy and health care experiences among migrants have confirmed that communication difficulties including a perceived lack of health-related

information in community languages are cited as the most common barriers. To overcome these, it is generally recommended for culturally and linguistically relevant health information to be made available to migrant population (Higginbottom et al., 2015; Mengesha et al., 2016; Morris et al., 2009).

2.2.2.3 Just read this – reading ability an assumed skill

Most health information is text-based as fact sheets, books or on the internet. It is assumed that health information seekers are able to read. However, women from low- and middle-income countries may not have had the educational opportunities that women have in high income countries. The World Vision report 'Girls on the move' (2018) states that girls growing up in low- and middle-income countries are often forced to leave school early to support the family with child caring and home duties. This may in part explain why some women from low- and middle-income countries have low literacy levels and thus are unlikely to access written health information.

2.2.3 Societal and environmental determinants of health literacy

The National Health Literacy Statement prepared by the Australian Commission on Safety and Quality in Health Care (2014) describes the health care system as the health infrastructure including locally available services, processes such as arranging appointments, health care resources, health care providers, and health policies. The health care system is part of the societal and environmental determinants of health literacy according to the Integrated Model of Health Literacy (Sorensen et al., 2012) and impacts on the way individuals' access, understand, appraise and apply health-related information and services.

2.2.3.1 Getting to know the system and the system getting to know people from different culturally and linguistically backgrounds

One of the first tasks for migrants arriving in a new country is to become familiar with the host country's health care system. This includes gaining knowledge about available services, navigating the system and services and finding and building trusting relationships with health care practitioners (Riggs, Yelland, Duell-Piening, & Brown, 2016).

Difficulties navigating the health care system including arranging appointments, and knowledge of available health and support services have often been cited as significant challenges for migrants in accessing health care and information. Higginbottom and colleagues (2015) systematically reviewed 10 qualitative and 14 quantitative studies about migrant women's experiences and views of the maternal health services in Canada using a narrative synthesis. The qualitative studies were rated predominantly as moderate to low quality, and the quantitative studies as high to moderate quality. A team approach in quality assessment and bias identification was used to strengthen the findings of the review. Thematic analysis identified a number of themes related to migrant women's experiences of maternity services in Canada and the authors concluded that migrant women had limited knowledge of available services, difficulty in arranging appointments and limited access to interpreter services.

Morris and colleagues (2009) explored barriers accessing health care among migrants and refugees using semi-structured interviews with 16 migrants and 24 health services workers in San Diego County, California. Thematic analysis identified access to health care; language and communication; acculturation difficulties; and cultural beliefs regarding health care as barriers to accessing health care. The authors concluded that both health care providers and migrants viewed low English language proficiency as a significant barrier in understanding and navigating the health care system.

A systematic review of 17 qualitative and five mixed methods studies by Mengesha and colleagues (2016) explored the views of a total of 1379 migrant women's perceptions of sexual and reproductive health services. Using thematic analysis, the authors concluded that health care providers' lack of cultural understanding and limited knowledge of differing cultural beliefs and practices were associated with health care dissatisfaction by study participants.

Health care policies and plans determine health priorities and inform resource allocation. Due to resource constraints, low- and middle-income countries predominantly focus on curative care rather than health promotion and prevention of non-communicable disease prevention (Samb, 2010). Hence, health screening, disease prevention and health

promotion concepts are often unfamiliar to migrants from low- and middle-income countries and this may contribute to their low participation in health screening and health promotion programs.

2.3 Measuring health literacy

Although health literacy research has found that poor health literacy is linked to worse health outcomes, and health literacy has been recognised as a determinant of population health, there is no universally accepted tool to assess and measure health literacy (Pleasant, McKinney, & Rikard, 2011).

2.3.1 Health literacy assessment tools

The Health Literacy Tool Shed is a database of 191 registered health literacy assessment tools. It is supported by the Boston University, NIH-U.S. National Library of Medicine, and Communicate Health (a consultancy designing health information) and reflects the complexities of measuring health literacy. Each tool is described in terms of its characteristics including domains assessed such as disease-specific or general health literacy, context, population age and modes of administrations; and number of items assessed, sample size in validation studies, and language and populations the tool has been validated in. Some tools can be accessed freely while others need to be requested through the corresponding authors or purchased (Boston University, 2019).

As the concept of health literacy has broadened over time the health literacy assessment tools have expanded to incorporate a more inclusive list of components which contribute to health literacy.

The earliest instruments were basic measures of clinical or medical health literacy – that is they gauged reading and numeracy in the medical context. For example, the Rapid Estimate of Adult Literacy in Medicine (REALM) assesses the ability to read and pronounce 66 medical words, and the Test of Functional Health Literacy in Adults (TOFHLA) includes reading and numeracy comprehension of commonly used hospital-related information (Barber et al., 2009). The Newest Vital Sign (NVS) is a quick assessment tool for the clinical setting and uses

six questions relating to the ability to read and understand food information labels (Barber et al., 2009; Pleasant et al., 2011).

The European Health Literacy questionnaire (HLS-EU-47) and the Health Literacy Questionnaire (HLQ) are among the most comprehensive public health literacy assessment tools. The European Health Literacy Survey (HLS-EU) project developed the HLS-EU-47 questionnaire. It consists of 47-items that assesses individuals' beliefs about their ability to access, understand, appraise and apply health-related information related to the three health care domains: as a patient in health care, as a patient in disease prevention and as a consumer in relation to health promotion (HLS-EU Consortium, 2011). The HLS-EU-47 is based on the comprehensive definition and concept of health literacy proposed by Sorensen and colleagues (2012).

The Health Literacy Questionnaire (HLQ) developed by Osborne, Batterham, Elsworth, Hawkins and Buchbinder (2013) measures nine constructs relevant to individuals' health literacy and the health literacy environment which has been defined by the Australian Commission of Safety and Quality Care (2014) as

the infrastructure, policies, processes, materials, people and relationships that make up the health system and have an impact on the way that people access, understand, appraise and apply health-related information and services. (p.2)

That is, some items measure an individual's ability to access, understand, evaluate and use health-related information while other items gauge the responsiveness of health services in supporting individuals to engage with and use health information and services (Osborne et al., 2013).

2.3.2 Challenges and critiques of health literacy instruments

In 2011, Pleasant and McKinney conducted a consultation through an online discussion forum among health literacy researchers and practitioners to identify weaknesses and key components of health literacy measurement tools. The consultation concluded that existing health literacy measures were limited because they focused on medical rather than public

health literacy, lacked underpinning theory of health literacy, were limited and ambiguous in their evaluation of health literacy, placed burden and blame of low health literacy on the individual and lacked cultural sensitivity (Pleasant & McKinney, 2011). These observations lead participants to issue a consensus statement that health literacy measures needed to be based on sound theory; able to measure both sides of health literacy – an individual's health literacy and the health literacy environment; and that health literacy should be measured across contexts including culture, life course, population groups and study settings (Aldoory, 2017; Pleasant & McKinney, 2011).

In a more recent systematic review Liu and colleagues (2018) evaluated five qualitative, two quantitative and four mixed methods studies investigating health literacy assessment tools for use among the general population. They found that all tools used a multidimensional concept of health literacy and could be classified into three categories: assessments based on health-related fields, on individual's health literacy skills and a combination of both. Based on their findings the authors proposed that health literacy assessment tools measure individuals' perceptions and views about health literacy rather than actual knowledge and consequently are subjective. They suggested that additional assessments such as interviews and observations may provide a more comprehensive picture of health literacy.

2.4 Health literacy among migrants in Australia

Health literacy among people in Australia was assessed as part of the Adult Literacy and Life Skills Survey (ALLS) in 2006 (Australian Bureau of Statistics, 2008). The ALLS was part of an international study coordinated by Statistics Canada and the Organisation for Economic Co-operation and Development (OECD) to assess adult literacy and numeracy (Australian Bureau of Statistics, 2008). Literacy was defined in the ALLS as the knowledge and skills needed to understand and use information from text and other written formats and numeracy was defined as the knowledge and skills required to manage mathematical demands of diverse situations (Australian Bureau of Statistics, 2008). In the context of the ALLS, Health literacy was defined as

the knowledge and skills required to understand and use information relating to health issues such as drugs and alcohol, disease prevention and treatment,

safety and accident prevention, first aid, emergencies and staying healthy.

(Australian Bureau of Statistics, 2008, paragraph 10)

The ALLS in Australia was a household survey. One person per private dwelling was asked to complete the survey. A total number of 11,139 dwellings were included and from those 8,988 people completed the survey, an 80.7% response rate. The ALLS assessed prose literacy, document literacy, numeracy and problem-solving, and included 191 health-related items across these four domains. Each item related to one of the following five health-related activities: health promotion, health protection, disease prevention, health care maintenance and systems navigation. Points were allocated to each domain and a cut-off point indicating 'minimum number of points required for individuals to meet the demands of everyday life' was determined by the survey developers (Australian Bureau of Statistics, 2008).

The ALLS concluded that 59% of the Australian adult population aged between 15-74 years had suboptimal health literacy skills. It found that people with lower educational attainment had lower health literacy than people with at least 16 years of formal education. Migrants from English-speaking background has similar levels of health literacy as those born in Australia. However, among migrants born in non-English speaking countries 74% had low health literacy.

2.5 Health literacy and public health agenda

Health literacy and its impact on population health is an international public health priority (Nutbeam, 2000; Squiers, Peinado, Berkman, Boudewyns, & McCormack, 2012).

In the United States, the Department of Health and Human Services launched the 'Healthy People 2010' a national health promotion and disease prevention plan. One of its key objectives is to improve health literacy in the population (Squiers et al., 2012). The European Union has included health literacy in policy documents such as the European Commission's White Paper 'Together for Health' (Sorensen et al., 2015). The Australian Commission on Safety and Quality in Health Care (2014) published the 'National Standards on Health Literacy'. This document outlines the importance of health literacy in ensuring safe and

high-quality care and provides strategies for how health literacy can be addressed systematically by the health care system.

The World Health Organization's publication 'Health Literacy: the solid facts' provides a concise overview of evidence on health literacy and states that low health literacy is a significant drain on human and economic resources in the health care system (World Health Organization, 2013a). This report was produced by a team of experts in the field including researchers, representatives from governments and industry. The report concludes that people with low health literacy are more likely to engage in risky health behaviours and report poorer health, have greater use of emergency care and more hospitalization and engage less in health-related self-management than people with adequate health literacy skills. The report also states that low health literacy is more common in people with limited education and people from disadvantaged and marginalised backgrounds (World Health Organization, 2013a).

2.6 Health literacy and healthy aging

Non-communicable chronic diseases account for the largest burden of disease around the globe (World Health Organization, 2004). The risk of developing non-communicable chronic diseases is partially associated with adverse health behaviours including smoking, lack of exercise, and excess body weight. In order to maintain and promote optimal health in later life adequate health literacy has emerged as one of the keys to improve health outcomes and health care experiences for all people (Australian Institute of Health and Welfare, 2019; World Health Organization, 2013a).

Among women the menopausal transition has been identified as a time when positive health behaviours including regular exercise and healthy diets are linked to healthy aging. The 9-year prospective, observational study of 438 Australian-born women aged 45-55 years reported by Guthrie, Dennerstein, Taffe, Lehert and Burger (Guthrie, Dennerstein, Taffe, Lehert, & Burger, 2004) found that health behaviours such as weekly exercise, maintenance of a healthy body weight during and after the time of menopause was associated with better health outcomes in later life. However, in order to be aware of the impact of health behaviours in midlife on the risk of non-communicable chronic diseases

and able to use the knowledge to adopt positive health behaviours, women need robust health literacy skills.

Chapter 3: Menopause

3.1 Introduction

Every women who reaches midlife will experience menopause. In his key note address to the audience of the 8th International Congress on Menopause in 1996, Utian (1997) stated that menopause had been recognised as a life phase in historical documents, non-scientific writing and early medical research. He noted that due to the lack of well-defined menopause-related terminology research findings may have been misinterpreted leading to suboptimal menopause-related care and proposed that sound definitions were needed to avoid misinterpretation of research publications.

3.2 History of menopause-related terminology

Although menopause-related terminology is used widely its meaning varies among health care providers, health care users, media and the medical literature (Utian, 2004).

In his paper 'Menopause - modern perspectives from a controversial history' Utian (1997) reflects on the inaugural International Menopause Congress held in 1976 which was attended by researchers and clinicians from around the globe. During this congress it became apparent that better information and forums for presenting menopause-related research were needed to inform clinical guidelines on the best available evidence. It was proposed that an agreed menopause-related terminology would allow researchers worldwide to enrol comparative populations into well-defined studies and that this would enable generation of evidence. In addition, clinicians would use the same terminology when managing the health care of women during and after the menopausal transition. At the completion of the congress well defined menopause-related terms had been adopted by delegates and steps were taken to establish the International Menopause Society, an association that was to foster menopause-related research and education to provide evidence-based information for the development of clinical guidelines (Utian, 1997).

The terms 'the climacteric' and 'the menopause' were recommended. 'The climacteric' referred to the normal phase in the aging of women marking the transition from the reproductive phase to the non-reproductive state. The term 'the menopause' was described

as the final menstrual period, which occurs during the 'climacteric'. The 'climacteric' is sometimes, but not invariably, associated with symptomology. When this occurs, it was termed the 'climacteric syndrome' (Utian, 2004).

In addition, explanations of the origins of 'climacteric symptoms' were offered in Utian's paper. Hot flushes, night sweats and atrophic vaginitis were ascribed to the "biological changes of decreased ovarian activity and subsequent hormonal deficiency" (Utian, 2004, p. 134). Sociocultural and psychological factors were also proposed to influence the menopausal experience and reporting of symptoms (Utian, 1997, 2004).

It is noteworthy that in his 1997 paper, Utian attributed the origins of symptoms to physiological changes, and sociocultural and psychological factors. However, sociocultural and psychological factors remained largely absent as explanatory factors for women's experience of menopause in menopause-related research until the late 1990's (Shore, 1999).

A review of the definitions of the various women's reproductive stages around the time of menopause was completed by the 'WHO Scientific Group on Research in the Menopause' in 1980 and published in 1981 (Utian, 2004). This working group, consisting of researchers and clinical experts in the field of menopause and public and preventive health, recognised the entire spectrum of women's reproductive life and provided definitions for pre-menopause, perimenopause, menopausal transition, menopause (natural), induced menopause, postmenopause, and premature menopause. These definitions were reviewed and adopted again in 1994 in a report published in 1996 (WHO Scientific Group on Research on the Menopause in the 1990s, 1996).

The term 'pre-menopause' had been used ambiguously either referring to the 1- or 2-years preceding menopause or to the entire reproductive period. The 'WHO Scientific Group on Research on the Menopause' in the 1990s' adopted the latter and defined pre-menopause as "the entire reproductive period, beginning with the first menstrual period up to the final menstrual period" (p. 13) (WHO Scientific Group on Research on the Menopause in the 1990s, 1996).

‘Peri-menopause’ describes the time immediately before the final menstrual period, when physical and clinical symptoms including changes to menstrual cycle indicate that menopause is approaching. Women whose periods become increasingly irregular and whose last menstruation occurred in the previous 3-12 months are considered to be peri-menopausal (Utian, 2004).

The term ‘menopausal transition’ which can be used synonymously with ‘peri-menopause’ was included. It describes the same period when menstrual cycles become increasingly irregular and includes the 12 months following the final menstrual period (Utian, 2004).

‘Menopause’ was classified as ‘natural menopause’ or ‘induced menopause’. The former refers to the “permanent cessation of menstruation due to the loss of ovarian follicular activity and is recognised to have occurred after 12 consecutive months of amenorrhoea, for which there is no other obvious pathological or physiological cause” (Utian, 2004, p. 135). Menopause occurs after the final menstrual period and is only known in retrospect a year or more after the event. ‘Induced menopause’ refers to the cessation of menstruation as a result of either surgical removal of both ovaries (with or without hysterectomy) or iatrogenic ablation of ovarian function (e.g., by chemotherapy or radiation) (Utian, 2004).

The term ‘postmenopause’ is the period after the final menstrual period, irrespective of whether menopause was natural or induced (Utian, 2004).

In addition, the term ‘premature menopause’ was included in the definitions. The ‘WHO Scientific Group on Research on the Menopause’ (1996) stated that ‘premature menopause’ is menopause that ‘occurs at an age less than two standard deviations below the mean estimated for the reference population. In practice, however, the age of 40 years is frequently used as a cut-off point’ (p.13). Therefore, if menopause occurs before the age of 40 it is said to have occurred prematurely.

After a review by the International Menopause Society in 1999, these definitions were adopted to strengthen menopause-related research. Although the term ‘climacteric’ and

‘climacteric syndrome’ had rarely been used in the United States, these terms were included due to their international popularity (Utian, 2004).

Melby, Sievert, Anderson, and Obermeyer (2011) reviewed the terminology used in menopause-related research with the aim of strengthening the reporting of menopause and aging studies. They found among the eight papers that matched the inclusion criteria that there were considerable variations. For example, there were study differences in the age ranges of the studied populations, the symptoms attributed to menopause and the reference periods for symptom recall. Based on these findings they recommended that well-defined terminology is imperative to strengthen research methodology, reporting of research findings and to provide evidence-based guidelines for clinical practice. Melby and colleagues (2011) conclude that although, there are clear definitions of the different stages of menopause the terms ‘menopause’ or ‘menopausal’ are often used as umbrella terms for this entire phase of life. Unsurprisingly, this has led to confusion among women, the media, health care providers and to a lesser degree among researchers.

3.3 Construction of menopause

Menopause has received considerable and at times controversial attention by clinicians, research and the media (Hyde, Nee, Howlett, Drennan, & Butler, 2010). The perception and meaning of menopause are influenced by a number of factors and have changed over time.

3.3.1 Historical view

Although historical and classical literature refer to the cessation of menstruation and link it to age and loss of fertility, very little is mentioned about any other physical changes or symptoms at this time of life (Utian, 1997; Wilbush, 1979). One of the earliest publications on menopause was written by the English physician Fothergill. He wrote ‘On the management proper at the cessation of the menses’ which was published in the Medical Observations and Inquiries in 1776 (Wilbush, 1979). Yet, his contemporaries showed little interest in women’s health let alone in menopause. It took nearly another 50 years and on the other side of the English Channel for menopause to be described in the medical literature. Charles-Paul-Louis de Gardanne, a French physician and doctoral candidate,

based his dissertation and book addressing menopause on Fothergill's paper. In 1812 he coined the term 'la menespausie' which was refined and translated to 'menopause' in 1821 and still used today (Jensen, 2017).

Nevertheless, women's health continued to receive little attention by the medical profession in Europe and North America (Lock & Kaufert, 2001). Formanek (1990a) reviewed the historical literature in her book chapter 'Continuity and Change and "The Change of Life": Premodern Views of the Menopause' which describes perceptions of women and menopause in the historical context from the 18th to the 20th century. She noted that before the professionalisation of medicine, women's health was predominantly attended to by female family members and older women from the community. Once medicine became a profession, physicians' interest in women's health increased, but the health of menopausal woman continued to be largely absent in medical texts.

Edward Tilt was the first English physician who showed significant interest in women's health including menopause and published the first medical text book in English 'On the Preservation of the Health of Women at the Critical Periods of Life' in 1851 (Formanek, 1990a). Formanek (1990a) reviewed Tilt's book and concluded that it was based on experiences and observations from his clinical practice. In the course of his medical career Tilt became an influential gynaecologist in London and president of the Obstetrical Society of London. Subsequently, collation and review of around 500 case records from menopausal women, presumably from women who could afford to consult a medical practitioner, provided most of the material for his second book 'The Change of Life in Health and Disease' in 1882. This book provides information on physiological changes, illnesses such as 'diseases of the reproductive organs', 'diseases of the nervous system' and treatments including 'bleeding' and 'administrations of diuretics and sedatives' during and after menopause or what Tilt calls 'The Change of Life' (Tilt, 1882).

Although, medical publications described 'women's diseases' such as amenorrhoea, their causes and effective treatment remained poorly understood (Formanek, 1990a). Menstrual blood was thought to be cleansing the body of toxins. Therefore, the lack of menstrual blood was believed to be the cause of any physical and psychological symptoms which

women were reporting during their peri and postmenopausal life. As a result, 'bleeding' the removal of blood from the circulatory system either by cupping, leeching or other methods, was one of the treatments to manage amenorrhoea and menopausal symptoms (Tilt, 1882).

Many male physicians put women at fault for their ill health believing their condition was a result of 'sinful or indulgent lifestyle or due to their deficient bodies'. The 'older woman' in particular was described as diseased (Formanek, 1990a). Tilt (1882) for example referred to the menopausal woman as having a "sinful mind and decaying body, suffering from dizziness, stupidity and vulnerability to insanity" (p. 142).

Formanek (1990a) stated that there were few female physicians in the 19th century. Although, they referred to the same text books with the same treatment recommendations as their male counterparts, some of them such as Anne Longshore-Potts, Mary Melendy and Clelia Duel Mosher, were influenced by alternative treatment methods, and suggested homeopathy, change in diet or less restrictive clothing and held more positive attitudes towards the menopausal transition and menopausal women. Longshore-Potts Longshore-Potts (1887) proposed that menopause offers women new opportunities to be useful to society, while Melendy (1903) reassured women that not all women suffer during the menopausal period. Like their male colleagues, most of their views on menopause were obtained through their clinical observations and experiences. Mosher, it appears, was not solely relying on her clinical observations but conducted the 'Study of the physiology and hygiene of marriage with some consideration of the birth rate'. The work, discovered in 1973 in the archives of Stanford University where Mosher had worked, consisted of a brief introduction and 45 completed questionnaires collected between 1892-1920. Most of the women who had completed the questionnaires were middle aged and born before 1870. Reiss (1982), a United States-based sociologist reviewed the data. He concluded that while there are several flaws and drawbacks with the data, which describes various perceptions and experiences of menopause, the information can be integrated with other existing sources of information to describe the sexual and reproductive life of women at that time. Female physicians also recognised that social circumstances may contribute to many women's complaints. Jacobi's work (1895, cited in Formanek, 1990a) 'A Pathfinder in Medicine' proposed that men caused many of the illnesses experienced by women and

listed “alcoholism of the fathers; gonorrhoea contracted by wives from husbands, sterility due to licentiousness in which the innocent women may have no share, enforced celibacy due to bad social arrangements and child birth close together” (p. 482) as possible reasons for poor health in menopausal women.

By the end of the 19th century the menopausal woman was described as vulnerable to physical and mental disease and this description was firmly cemented in public and medical discourse. This is reflected in the Surgeons General Index (1888, cited in Formanek 1990b) which directs those searching for cessation of menstruation to ‘see also: insanity in women and uterus (cancer of)’.

3.3.2 Medical constructs of menopause

Van de Wiel (2014) a United Kingdom-based sociologist discussed the normative ideas about aging and the reproductive embodiment in the 19th century. She believes that Tilt’s work can be read as an expression of the medicalisation of menopause which positions menopause as a pathological condition associated with physical and psychological symptoms and in need of medical intervention and management. While the menopausal transition is associated with hormonal and physical changes they are actually normal consequences of aging and referring to these as ‘symptoms’ further demonstrates the conceptual link of menopause as a medical construct.

3.3.2.1 Menopause as a deficiency disease

In 1991, Kopera’s editorial reflected on the ‘dawn of hormone replacement therapy’. He wrote that based on clinical observations, early findings in the treatment of menopausal symptoms were published in German medical journals in 1896. Three papers, independent from each other, described using dried ovarian tissue derived from cows, to alleviate menopause-related symptoms in women who either had undergone surgical menopause or experienced natural menopause. The first publication reported on a single case in the ‘Landau Privat Klinik’ in Berlin, Germany. Three weeks later the second paper reported the findings from a ‘trial’ at the University in Kiel, Germany which included five women and five weeks after that the results from a ‘trial’ with seven women from the University of Vienna,

Austria were published. According to these publications, these 13 women were treated by oral administration with ovarian tissues derived from cows and nine of them reported improvement of their symptoms including reduction in hot flushes (Kopera, 1991).

The search for effective treatment and management of menopausal symptoms progressed significantly with the isolation of follicle hormones, later referred to as estrone, in the urine of pregnant women by Butenandt and colleagues in 1929 (Utian, 1997). But it wasn't until the 1940s, when the production of affordable estrogen derived from the urine of pregnant mares became possible, that menopause was firmly placed in the medical domain (McCrea, 1983).

By the early 1960s estrogen was widely available in the United States. Dr Robert Wilson, a New York based gynaecologist, was a strong advocate for estrogen therapy in menopausal and postmenopausal women (R. A. Wilson & Wilson, 1963). Together with a colleague he reviewed 65 medical publications on the physical effects of menopause and provided a narrative synthesis of the then available evidence in their paper 'The fate of the non-treated postmenopausal woman: a plea for the maintenance of adequate estrogen from puberty to grave' which promoted estrogen to be essential for the female body. They described the menopausal and postmenopausal woman as "castrates who suffer from the lack of estrogen and must continue to live in this diseased state until the end of their lives" (Wilson and Wilson, 1963, p. 349). It appears that their interpretation of research findings and assertions were influenced by their clinical opinions. For instance, one of their assertion was that "the lives of men and women with previous coronary atherosclerosis can be significantly lengthened by estrogen administration" (Wilson, 1963, p. 350). However, on examining the original publication by Marmorston, Magdison, Kuzma, and Moore (1960) there was no evidence to support this claim. Marmorston and colleagues' (1960) research assessed the feasibility of long-term estrogen therapy and its side effects when administered to men who had been treated for myocardial infarction. At the completion of the study the authors acknowledged that men experienced what they termed 'feminisation' including enlargement of breasts, breast tenderness and loss of libido. Thus, Wilson and Wilson's (1963) assertion that estrogen therapy 'lengthens the lives of men and women' is not supported by the original paper.

The National Centre for Health Statistics (1968) prepared a report on the 'Vital statistics rates in the United States 1940-1960' which showed that 'white' women's life expectancy at birth had increased from 66 years in 1940 to 75 years in 1960. Based on this and their position that 'estrogen deficiency' caused poor health in postmenopausal women, Wilson and Wilson (1963) argued that postmenopausal women were presenting an economical problem. They promoted 'lifelong estrogen therapy' in order to avert the economic burden of older women (R. A. Wilson & Wilson, 1963). Critics of this position including McCrea (1983) in her review of peer-reviewed and grey women's health related literature, argued that Wilson and Wilson's support for estrogen therapy may have also been driven by commercial interests as their research was largely funded by the pharmaceutical industry. The author concluded that Wilson and Wilson's publication was instrumental in the acceptance of menopause as a 'deficiency disease' and the large-scale routine prescription and administration of continuous estrogen therapy in the United States. Hormone therapy for menopausal symptoms was compared with thyroxin treatment for hypothyroidism suggesting that hormone replacement therapy was essential to menopausal and postmenopausal health (McCrea, 1983).

Early research by Gusberg (1947), a cancer researcher at Columbia University, suggested that a proliferation of endometrial tissue in women using estrogen was linked to adenocarcinoma. It wasn't until 1975 when D. D. Smith, Prentice, Thompson, and Herrman (1975) retrospectively assessed 317 case histories of women who had been diagnosed with adenocarcinoma of the endometrium that estrogen therapy was identified as the most significant contributor to an increased risk of endometrial cancer. These findings led to a sudden decline in the use of estrogen therapy (Hyde et al., 2010).

In her commentary Fugh-Berman (2015) stated that by the early 1980s, it was evident that the risk of endometrial cancer due to estrogen therapy could be mitigated if the hormone progestin was combined with estrogen. This combined therapy became known as 'hormone replacement therapy' and its availability led to an increased uptake and renewed popularity of hormonal therapy mainly in the United States and the United Kingdom. Wysowski, Golden, and Burke (1995) conducted an analysis of the annual number of prescriptions for hormone replacement therapy in the United States using two pharmaceutical marketing

research data bases. They concluded that 13.6 million prescriptions for hormonal therapy were dispensed in 1982 and by 1992 the number had risen to 31.7 million. The use of hormone replacement therapy in menopausal and postmenopausal women was hailed as the cure for menopausal symptoms. This is reflected in the consensus statement from the first 'International Consensus Conference on Progestogen in Postmenopausal Women' held in Naples, Florida in September 1988: "All women should be made aware of the consequences of estrogen-deficiency in the post-menopause; and should be offered the opportunity to receive estrogen therapy" (Utian, 1989, p.175).

However, hormone replacement therapy's role in menopausal and postmenopausal health continued to be debated among clinicians and researchers. There were supporters who believed that hormone replacement therapy was essential to women's health and therefore advocated for its continuous use in menopausal and postmenopausal women (Mishell, 1989). On the other hand, Notelovitz (1989) a women's health clinician and researcher in his position paper published in the Journal of Family Medicine in 1989, argued that hormone replacement therapy should be reserved for women who experience early menopause, surgical menopause and for women who have an increased risk of developing cardiovascular disease and osteoporosis. Instead he promoted good nutrition, exercise and a healthy lifestyle for optimal postmenopausal health.

Despite these debates, the predominant construct of menopause as a 'deficiency disease' persisted. The 23rd edition of the Physician's Handbook described menopause as a 'clinical disorder of the ovary' characterised by estrogen deficiency (Krupp, Tierney, Jawetz, Roe, & Camaargo, 1985) and the 1990 Merck Manual of Geriatrics (Abrams, 1990) listed menopause under 'metabolic and endocrine disorders'.

Menopause was positioned as a clinical disorder until the 1980s when it was recognised as a life phase associated with risks of certain non-communicable conditions.

3.3.2.2 Menopause as risk of chronic non-communicable conditions

Murtagh and Hepworth (2003b) reviewed how the medical and social research literature position menopause. They concluded that from the early 1980s menopause was identified

in the medical literature as a crucial phase in women's lives due to the increased risk of the onset of non-communicable conditions. Research studies reported a greater likelihood of bone fractures associated with osteoporosis and risk of cardiovascular disease in postmenopausal women and suggested that estrogen provided protection against these conditions. Hence, the combined hormone replacement therapy and the discourse that menopause was a risk factor for chronic diseases resulted in a renewed endorsement and use of hormone therapy in menopausal and postmenopausal women. Menopause was no longer described as a disease but as a state that causes other diseases which can be managed with the 're' introduction of hormones (M. Murtagh & Hepworth, 2005). At the same time increased value was placed on health and healthy life style with the responsibility placed on the individual. Kaufert and Lock (1997) examined how menopausal women were positioned in the pharmaceutical literature and in media reports. They concluded that health had become a new virtue for women and that older women were held responsible for their health through their actions and decisions during that life stage. According to the authors, this led to the use of hormone replacement therapy being seen as a responsible choice to promote health after menopause.

The Women's Health Initiative (WHI) commenced in 1993 and is a longitudinal national health study sponsored by the National Institutes of Health and the National Heart, Lung, and Blood Institute in the United States. It focuses on strategies for preventing heart disease, breast and colorectal cancer, and osteoporotic fractures in postmenopausal women. The WHI consist of two major components: a clinical trial and an observational study. The randomised controlled clinical trial was initiated to examine the use of continues hormone replacement therapy and its potential benefits for postmenopausal women. In 1993, 16,608 postmenopausal women aged between 50-79 years were enrolled in the doubled-blinded trial comparing estrogen plus progestin with placebo therapy (Women's Health Initiative, 1993). The study was discontinued in 2002 as early findings reported an increase in cardiovascular events, pulmonary embolism, stroke and invasive breast cancer in long-term users of hormone replacement therapy. It was concluded that the risks of hormone replacement therapy outweighed the benefits and it was no longer recommended in primary prevention of cardiovascular disease (Rossouw et al., 2002). However, one year after the publication of these early findings, Manson and colleagues (2003) conducted

further analysis of the data which showed that cardiovascular events had increased only in women who had commenced hormone replacement therapy 20 years after menopause. Nevertheless, the original publication had led to a change in attitudes towards hormone replacement therapy among clinicians and women leading to a significant decline in its use (MacLennan, Taylor, & Wilson, 2004).

3.3.2.3 Menopause-related research

Although, the medical conceptualisation of menopause as a 'deficiency disease' and a state of 'risk of chronic non-communicable condition' has been challenged by social researchers including M. Murtagh and Hepworth (2005) and Hyde and colleagues (2010) it continues to be evident in contemporary menopause-related research and medical literature.

Menopause-related research has and continues to predominantly focus on prevalence of physical and psychological symptoms (Gartoulla, Islam, Bell, & Davis, 2014; Islam, Gartoulla, Bell, Fradkin, & Davis, 2015), experiences of menopause-related symptoms and treatment options (Innes, Selfe, & Vishnu, 2010; Posadzki, Watson, Alotaibi, & Ernst, 2013; Taylor-Swanson et al., 2015; Woods et al., 2014), and attitudes towards menopause and hormone therapy (Tao, Teng, Shao, Wu, & Mills, 2011). This research is largely conducted using standardised self-report fixed response questionnaires specifically designed to measure menopausal symptoms which were developed based on clinical experience, the published literature and other health-related questionnaires (Zollner, Acquadro, & Schaefer, 2005). For example, the Menopause Rating Scale (MRS) (Heinemann et al., 2004), Menopause Specific Quality of Life (MENQOL) (Hilditch et al., 1996), Women's Health Questionnaire (WHQ) (M. Hunter, 2000) and the Menopause Representations Questionnaire (MRQ) (M. Hunter & O'Dea, 2001) are commonly employed questionnaires using Likert scales to rate and measure menopause-related symptoms.

These scales categorise menopause-related symptoms into three or four domains namely: vasomotor, psychosocial, somatic, and urogenital/sexual symptoms. Symptoms are either listed or full sentence statements about aspects of menopause are provided. Women are asked to rate the severity of these symptoms or, in the case of the full sentence statements, to rate the strength of their agreement with these statements. Two of the four

questionnaires do not include any statements describing positive aspects of menopause. This may in part explain why menopause is often described as a negative life phase in research reports. For example, the MRS lists 11 bothersome physical and psychological symptoms attributed to menopause and asks women to rate the severity of these symptoms. The MENQOL offers the same 11 symptoms described in the MRS and a further 18 full sentence statements which describe negative emotions such as 'dissatisfied with my personal life', or 'feelings of wanting to be alone'. The WHQ invites women to rate 37 full sentence statements reflecting psychological and physical symptoms. Only six of these statements describe positive aspects of menopause such as 'I have feelings of well-being' and the remaining 31 statements describe negative symptoms and perceptions of menopause including 'I suffer from night sweats' or 'I feel tense or wound up'. In contrast, the MRQ is a more balanced questionnaire consisting of two components. The first component lists 20 bothersome physical and psychological symptoms. The second component is a list of 17 statements describing views and beliefs about menopause of which only one, 'I feel less confident since the menopause,' reflects a negative experience.

3.3.3 Sociocultural construct of menopause

Menopause is a normal biological event, experienced by all women who reach midlife. However, perceptions, attitudes and meaning of menopause differ between populations and cultures. Berger and Forster (2001) conducted a qualitative study in Brisbane, Australia among 70 women aged between 45- and 70-years using focus groups and in-depth interviews. The women were recruited through community-based women's groups and women's health centres. The investigation explored the diversity of women's menopausal experiences from a sociocultural perspective. A content analysis of the data identified that menopause represented 'wellness' for most participants. Apart from the physiological changes, women viewed menopause as a transitional period from reproductive to non-reproductive phase associated with greater self-determination and rewards. The authors concluded that the sociocultural construct of menopause acknowledges that the menopausal experience is not only influenced by hormonal changes but also by the context of women's lives (Berger & Forster, 2001).

In her position paper 'The social and cultural context of menopause' to the WHO Scientific Group Meeting on Research on the Menopause in the 1990s, Kaufert (1996) argued that early menopause-related research focussed predominately on age of menopause, physical and psychological symptoms of menopause and options for treatment of menopause-related symptoms. After reviewing 49 medical publications she concluded that menopause-related studies had mainly been conducted in North America, Australia and Europe, were usually carried out in clinical settings with small sample sizes, and were often restricted to urban, white, middle-class women. As a result, she observed that little was known about the menopausal experience of women from culturally and linguistically diverse and marginalised and disadvantaged backgrounds. Furthermore, Kaufert (1996) criticised the fact that study instruments used to measure experiences of menopause had fixed response scales and did not gauge attitudes and views about menopause from women's perspectives.

Kaufert (1996) argues that this early research could not explain why women have differing menopausal experiences and this became the focus of subsequent anthropological studies which sought to gain a deeper understanding of the sociocultural context influence on women's perceptions and meaning of midlife and menopause.

3.3.3.1 Menopause - time of growth, privileges and power

Transcultural research has shown that individual experiences and perceptions of menopause are culture specific.

Marcha Flint (1975) a United States based anthropological scholar compared menopausal experiences among women living in the United States and women living in India. In the 1970's she carried out her PhD project in the Indian states of Rajasthan and Himachal Pradesh. Her findings were later published in the widely cited paper 'The Menopause: reward or punishment?' However, this paper does not include a description of the methods of data collection and analysis which makes it difficult to assess the validity of the findings. It only states that she collected data from 483 women of the Rajput caste in the states of Rajasthan and Himachal Pradesh. She found that very few women reported any symptoms associated with menopause apart from changes in the menstrual cycle. The women did however, report greater social privileges and ability to participate in community activities

and they were no longer considered contaminated because they had ceased menstruating. Flint (1975) surmised that the role change associated with greater privileges lead to the positive view about menopause and aging, and the lack of any of the symptoms commonly reported by women in North America, Europe or Australia.

George (1988) reported similar findings among Sikh women from India living in Canada. Fifty women participated in an ethnographic field study using participant-observation and semi-structured interviews. Just like Flint (1975), George (1988) found that the study participants associated menopause with greater social status and privileges and reported relief of the social restrictions associated with menstruation.

More recently, Stewart (2003) carried out a qualitative study using in-depth interviews with 24 peri and postmenopausal Mayan women in Guatemala about their experiences and views about the time of menopause. She found that Mayan women were pleased that their menses were stopping citing greater social and religious freedom, freedom from the inconveniences of menstruation and menstrual taboos and welcomed the fact that they could no longer become pregnant.

3.3.3.2 Menopause – time of loss and old age

Although many women describe menopause as a natural life event with social rewards and freedoms, others have ambivalent feelings about it. Khademi and Cooke (2003) examined menopausal attitudes and beliefs among rural and urban women in Iran. They hypothesised that urban women had adopted 'westernised' values and therefore would have negative views about menopause and associate it with aging and loss of youth. The authors conducted structured interviews face-to-face with 70 women living in urban Tehran and 49 women from Semirom, a rural community of about 700 hundred families. The interview guide consisted of eight questions which had scaled response options. They found that women from Semirom believed that they were less capable after menopause and although they were glad that they no longer were able to bear children, they were worried that their 'value' associated with child-bearing had been reduced from their husbands' point of view. In contrast, urban women viewed menopause as a natural life phase and associated it with greater independence and respect.

Chirawatkul, Patanasri, and Koochaiyasit (2002) conducted a qualitative study in northern Thailand among 142 peri and postmenopausal women from rural and urban communities. Data were collected using 10 focus groups and 57 in-depth interviews. Their investigation found that women discuss midlife in both positive and negative terms. In traditional agricultural communities, where community members adhered to long held traditions and practices, they found that older women gain greater social standing and power over younger family members. In contrast, in urban communities where these values were mostly no longer adhered to, and social authority over younger community and family members was largely dependent on financial status, middle-aged women felt they needed to remain economically active for longer to maintain independence and therefore continue to have authority over younger family members.

3.3.3.3 Mothers and daughters – influences of sociocultural construction of menopause

Utz (2011) a life-course sociologist from the University of Utah, United States, explored perceptions of menopause among mothers and their daughters in a Midwest town in the United States. She interviewed 13 women who were born in the early to mid-1950s and 11 women who were born in the 1920s and 1930s. The older women transitioned through menopause in the 1970s and early 80s, whereas the younger women transitioned in the late 1990 and early 2000. During the interviews it became apparent that the women's perceptions of menopause were influenced by the sociocultural context in which it took place. The women who had transitioned through menopause in the 1970s and early 80s mostly accepted menopause, were unconcerned about their menopausal experience and defined menopause as a developmental transition and a time for self-evaluation and goal setting. Their menopausal transition occurred at a time when the link between hormone replacement therapy and increased risk of cancer was publicised. This may have influenced their views on menopause as a natural developmental phase. The women who transitioned through menopause in the late 1990s and early 2000 on the other hand, expressed the need to control their biological body and viewed menopause in terms of physiological processes mainly expressed through health problems and disease. Utz (2011) argued that the younger women had experienced the ability to control their fertility due to the progress and improvements in the contraceptive pill. This may explain why they were more willing than

the older women to use hormone replacement therapy to manage their menopausal symptoms.

3.3.3.4 Sociocultural construction of menopause-related symptoms

The sociocultural construct of menopause calls into question the medical position of menopause. Instead it proposes that symptoms associated with menopause are mostly due to aging. Cross-cultural research has explored the diversity of menopause-related symptoms and found that reporting of menopausal symptoms varies widely between populations (Melby, Lock, & Kaufert, 2005). Avis, Kaufert, Lock, McKinlay, and Vass (1993) compared findings from three surveys which were independently conducted in Canada, United States and Japan. The data were generated from the Manitoba Project on Women and their Health, the Massachusetts Women's Health Study and Lock's study (1986) of women from three different geographic regions in Japan. The survey collected data about physiological and psychological symptoms included in the menopausal symptom index (Avis et al., 1993). Avis and colleagues (1993) found that Japanese women had a lower reporting frequency of all symptoms including hot flushes and night sweats than 'Caucasian' women living in Canada and United States. A further study by Lock, Kaufert, and Gilbert (1988) using interviews with 105 middle-aged women in Japan found that shoulder stiffness and aching joints were the most commonly experienced symptoms associated with menopause. However, Melby and colleagues (2005) in their critique of this study argued that shoulder stiffness and aching joints are also reported at a similar rate by Japanese men and younger people.

In a recent cross-sectional survey of a nationally representative sample conducted in Germany, Weidner and colleagues (2017) recruited 1350 females and 1177 males aged between 14 and 95 years who completed the Menopause Rating Scale (MRS), a self-evaluation tool to identify and quantify physical and psychological symptoms attributed to the menopausal transition. They found a significant linear increase of symptoms with age in both men and women and only hot flushes and night sweats appeared to be unique to women in the menopausal transition.

Generally, sociocultural research suggests that positive perspectives of menopause are reported in societies where menopause is associated with greater privileges and increased social status. In contrast, in societies where menopause is a marker of old age, loss of fertility and reduced social status menopause is viewed less favourably.

3.3.4 Feminists construct of menopause

Feminism, broadly speaking, seeks to identify and influence social, cultural, economic and political structures that are instrumental in the oppression of women (Loppie & Keddy, 2002). According to M. J. Murtagh and Hepworth (2003a), feminist research uses social research methods in order to understand women's experiences and considers how the construction of gender and menopause influences the menopausal experience.

Loppie and Keddy (2002) examined how peer-reviewed and grey menopause-related literature positions the history of the menopause discourse, including medicalisation of menopause and the discourse of science, and the separation of body and mind. They concluded that menopause, like menstruation and pregnancy, has become a medical event and is used to explain a range of weaknesses in women which serve to maintain that the female body is 'faulty' and perpetuate gender inequality and social control over women. McCrea (1983) argues that the 'disease label' for menopause serves the medical profession and the pharmaceutical industry well. The medical profession controls and remains the authority over the female body while the pharmaceutical industry benefits through increased profits.

McCrea (1983) argues that Robert Wilson was aware of doctors' potential and even mandate as agent for social control. Conrad (1992) defined social control as "having the authority to define certain behaviours, persons and things" (p.210). In 1966, Wilson published a book titled '*Feminine forever*' (cited in McCrea, 1983, p. 113). In the chapter 'Menopause-the loss of womanhood and good health' he wrote: "I would like to launch into the subject of menopause by discussing its effects on men." (Wilson, 1966, p. 92, cited in McCrea, 1983, p. 113) He provides an example of how he helped a husband who consulted him about his wife's recent behaviour change. The man claimed "She is driving me nuts. She won't fix meals. She lets me get no sleep. She picks on me all the time. She makes up lies

about me. She hits the bottle all day. And we used to be happily married". Wilson (1966, p. 93, cited in McCrea 1983, p. 113) continues the anecdote and says that the wife responded well to estrogen therapy and she was able to resume her "wifely duties" (Wilson, 1966, p.93, cited in McCrea, 1983, p. 113).

The view that menopause was also affecting the lives of men was adopted by the pharmaceutical industry too in the advertising and promotion of hormone therapy. Coney's book (1991) 'The Menopause Industry' depicts advertisements for hormonal therapies that promise to treat the menopausal symptoms that 'bother him most'.

Overall, feminist researchers conclude that women need to challenge the medically constructed views and propose that menopause is a normal life phase, that may be accompanied by physical and emotional symptoms but on the whole is a positive transition. They describe menopause as an empowering phase with greater freedoms and possibilities. Hence, the feminist construct of menopause promotes menopause as a normal life transition and as a 'rite of passage' that provides the opportunity for self-evaluation and new-found freedom (Hyde et al., 2010).

While feminist writers question the medicalisation of menopause and consider women's perceptions of menopause, the feminist construct is not without critics. Women who experience significant bothersome menopause-related symptoms may feel ignored by this construct and that their experiences are dismissed, leaving them feeling frustrated and that their needs are overlooked.

3.3.5 Healthy aging and menopause

Healthy aging and related terms such as successful aging and positive aging, have been developed in response to the aging of the population (The Royal Australian College of General Practitioners, 2016). The 'World report on aging and health' published by the World Health Organization (2015) defined healthy aging as "the process of developing and maintaining functional ability that enables wellbeing in older age" (p.28).

Although, globally life expectancy for women and men has increased continuously for the last 40 years, life expectancy in women remains 3-7 years longer than in men (Wang et al., 2012). While women live longer than men, these later years are often associated with disease and disability (Salomon et al., 2012).

The risk of non-communicable diseases increases after midlife. In women this phase coincides with the menopausal transition. The Stages and Reproductive Aging Workshop held in 2011 reviewed the available evidence from cohort studies of women in midlife in the context of chronic illnesses and its associated clinical markers (Harlow et al., 2012). They concluded that the menopausal transition is associated with hormonal and physiological changes. These changes, chronological aging and poor health behaviours have been linked to the increase in chronic non-communicable conditions after menopause (World Health Organization, 2009). Hence, being in good health and positive health behaviours at the time of menopause are proposed as a crucial component of healthy aging (World Health Organization, 2015).

A conceptual framework for 'healthy menopause' has been developed by Jaspers and colleagues (2015). As part of this framework 'healthy menopause' is defined as "the ability to adapt and the capacity to self-manage in order to achieve physical, psychological and social functioning as self-perceived by the individual woman" (Jaspers et al., 2015, p.95) .

'Healthy menopause' acknowledges that the biological processes encompassing menopause are part of women's life and should not be regarded as a medical condition but as a natural life phase (Jaspers et al., 2015).

Based on this conceptional framework midlife is associated with increased risk of non-communicable conditions, and the recommended strategies to address these risks are review and assessment of lifestyle, health education and promotion of optimal health behaviours, health screening, and possible treatment of modifiable risk factors (Jaspers et al., 2015).

3.4. Menopause and migration

Migration to a new country requires learning and adapting to a new environment, its systems, values, and practices. While the meaning, experience and associated health behaviours of menopause are influenced by the construction of menopause in the country of origin, it is unknown whether and to what extent these may change over time due to the exposure of the host country's beliefs about menopause (Hall, Callister, Berry, & Matsumura, 2007). Menopause research among migrant women so far has mainly explored the perceptions and reporting of menopause-related symptoms. However, understanding of menopause, menopause-related health behaviour and health literacy in the context of migration has not been examined together.

Chapter 4 – Research design

4.1 Introduction

The aims of this project were to establish midlife-related health literacy and health care needs of women who migrated (migrant women) from low- and middle-income countries to Australia to inform health care practice and policy.

The specific objectives were to:

1. Establish the available evidence about the menopause-related experiences and health care needs of migrant women
2. Describe the strategies migrant women use to manage the menopausal transition and their postmenopausal health
3. Describe how migrant women access, understand, appraise and apply menopause-related health resources
4. Describe migrant women's satisfaction with menopause-related health care and services
5. Establish health care providers' experiences of providing menopause-related health care for migrant women
6. Inform relevant women's health policies

The research methods have been described in the publications presented in chapter 5, 6, 7 and 8. However, the brevity of the methods section in peer-reviewed publications limits the provision of detail. This chapter describes the research design in its entirety and presents additional methodological information about a systematic review (Component 1), semi-structured interviews (Component 2) and a cross-sectional survey (Component 3) conducted for this project.

4.2 Research Design

This project used a mixed methods research design. Mixed methods research involves combining multiple methods to obtain breadth and depth of understanding that cannot be achieved by one method alone (Johnson, Onwuegbuzie, & Turner, 2007).

An Exploratory Sequential Design (figure 3) was chosen for this research. The first method was a systematic review to provide an up-to-date synthesis of the available evidence relevant to the research aim. This was followed by a study using a qualitative method where data are collected and analysed before the quantitative data collection can begin. The qualitative data informs the research questions and data collection for the study which uses a quantitative method. Once both sets of data are collected and analysed the findings are integrated and interpreted (DeCuir-Gunby & Schutz, 2017).

As noted by Brannan (2005) the choice of research question determines the research methods. In the qualitative component of the Exploratory Sequential Design the researcher generally works from the constructivist principle – which acknowledge that there are ‘multiple truths or realities’ and individuals construct their own realities based on their experiences and perceptions (DeCuir-Gunby & Schutz, 2017). When the research moves to the quantitative component the underlying assumptions change to those of the positivist principle which is guided by the need to identify and measure variables and statistical trends (DeCuir-Gunby & Schutz, 2017).

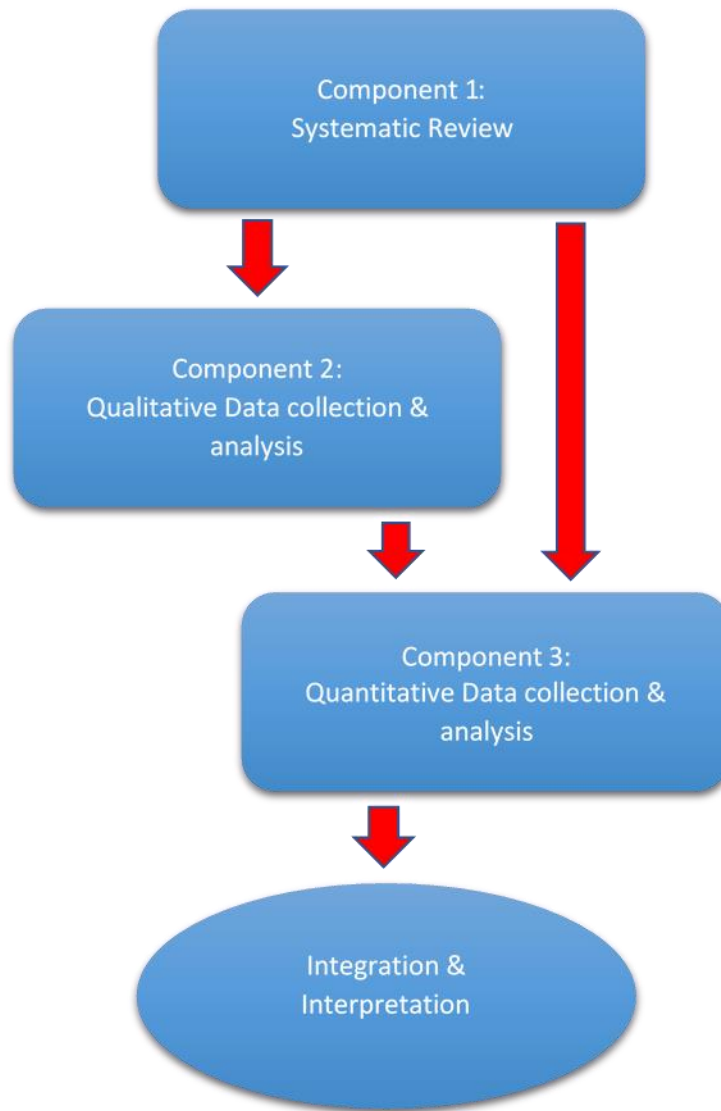


Figure 3: Exploratory Sequential Design

Experiences and perceptions of menopause vary widely among women and are influenced by a number of factors such as the prevailing sociocultural construct of menopause. Objective 1 was addressed in Component 1 of the project using a systematic literature review to establish the evidence available about migrant women's experiences and perceptions of menopause, their self-care strategies and perceptions of menopause-related health care.

The findings from the systematic review provided information about the existing research and knowledge gaps. This informed Component 2 of the research design in the development

of the interview guide used in semi-structured interviews to explore perceptions about menopause-related experiences and health care, and health literacy skills among migrant women from low- and middle-income countries thereby addressing Objectives 2, 3 and 4.

The findings from the systematic review and the semi-structured interviews with migrant women provided important information needed to develop a cross-sectional survey using fixed response and open-ended questions for Component 3. The survey addressed Objective 5 by assessing primary health care providers views about the menopause-related health care needs of migrant women from low- and middle-income countries and their perceptions and experiences of providing comprehensive menopause-related care to this population group.

After completion of data collection and analyses the data from the three components were integrated and interpreted, the final step in the Exploratory Sequential Design and provided information to make recommendations for the National Women's Health Strategy 2020-2030 and therefore addressing objective 6 of this project.

4.3 Ethical considerations

The National Statement on Ethical Conduct in Human Research (The National Health and Medical Research Council, 2007 (updated) 2018) describes the values of respect, research merit, integrity, justice and beneficence which provide a framework for the principles that should guide the designs, review and conduct of research with human beings. A research protocol was established to ensure the ethical values set by the National Statement on Ethical Conduct in Human Research were followed.

4.3.1 Ethical considerations for Component 2 – Semi-structured interview with women who have migrated

Migration involves the loss of elements of personal history, identity and connections to culture, place, friends and family. Discussing deeply personal experiences such as the menopausal transition in a safe environment, although most likely to be experienced as respectful and constructive, may provoke feelings of sadness and loss among women who

have migrated. Steps were taken to ensure minimal distress to participants. First, the researcher is a women's health nurse with more than 20 years of clinical practice. During her professional practice, she worked extensively with women from culturally and linguistically diverse backgrounds in clinical and community settings. She undertook professional development and training to address the needs of her client population. This included solution-focussed counselling, education courses about specific women's health care needs and cultural awareness training. The cultural awareness training provided a thorough understanding of how culture shapes personal, group and community identity and social connections and how this is enacted in respectful engagement with people from culturally and linguistically diverse backgrounds. The researcher was aware of her culturally determined values and how these may influence her interactions with others. Being mindful of the adverse impact of cultural stereotyping, and valuing cultural diversity enabled the researcher to be non-judgemental and neutral in data collection.

Second, the explanatory statement stated and the interviewer reiterated that, if a woman experienced distress during the interview, she could choose to stop the interview and either continue at another time or terminate the interview. Third, the explanatory statement also included information about available support services.

There were no direct benefits to participants to take part in the study. However, participation provided migrant women an opportunity to describe their experiences and concerns related to a transitional life stage. Furthermore, participation in research may counter feelings of helplessness, increase autonomy and promote active participation in the community (Hutchinson, Wilson, & Wilson, 1994).

Privacy and confidentiality were ensured by conducting the interviews in a space where the conversation could not be overheard. Participants were given the choice to pick their own pseudonym or have a pseudonym chosen for them by the researcher. The interviews were transcribed by the researcher. The original audio-recordings were deleted after recordings once they were checked against the transcripts. The transcripts were stored on the password protected server hosted by Monash University. The signed consent forms

including demographic data, which were documented in hard copy, were kept in a locked filing cabinet at Monash University, St Kilda Road, Melbourne, Australia.

Although study participants had received the participant information before the interview, at the beginning of each interview, the purpose of the study and what participation entailed were explained and study participants were given the opportunity to ask questions relating to the study. To ensure consent was informed, the participant information was read to participants who had limited English or first language literacy proficiency by the researcher, a bilingual researcher or an interpreter.

To limit any possible inconvenience all women were offered the opportunity of being interviewed at a venue of their choice. In addition, in respectful recognition of their time or expenses incurred as a result of participating in the research, an AUD \$40 gift voucher was given to each participant.

Ethics approval for Component 2 of this research was granted from the Monash University Human Research Ethics Committee (Project ID 8128).

4.3.2 Ethical considerations for Components 3 – Online survey with primary health care providers

The opportunity for primary health care professionals to complete a survey about experiences of providing care to migrant women in midlife was widely advertised online. Those who were interested were taken to detailed explanatory information. If after reading this they decided not to take part they could leave the site. For those who continued and completed the survey consent was implied. Implied consent refers to consent given by a person's actions rather than expressly granted verbally or in writing.

The survey did not collect any personally identifying data and this ensured that confidentiality and privacy were maintained.

In recognition of their time commitment participants who chose to complete the survey were able to enter a draw for one of three AUD \$100 gift vouchers once they had completed

the survey. Those who entered the draw were taken to a separate page where they were able to leave their contact details.

The draw followed the special conditions and requirements for small raffles set by the Victorian Commission for Gambling and Liquor Regulation (Victorian Commission for Gambling and Liquor Regulation, 2018).

The method of the draw must allow for each ticket in the draw to have a random and equal chance of being drawn. The names of participants who entered into the draw, were placed into a non-transparent container. Under the supervision of the researcher, a senior researcher from Monash University drew the first three names from this container. Both researchers checked the names, recorded these and winners were notified by email, informing them of their win and requesting mailing address in order to post the gift cards (Victorian Commission for Gambling and Liquor Regulation, 2018).

Ethics approval for Component 3 was granted from the Monash University Human Research Ethics Committee (Project ID 15095).

4.4 Component 1: Systematic literature review

To establish the available evidence about migrant women's experiences and perceptions of their menopausal transition and postmenopausal life; their self-management strategies for menopausal symptoms; and their perceptions of the menopause-related health care they receive, a systematic literature review was registered with the International Prospective Register for Systematic Reviews (PROSPERO). The review was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines which consist of a checklist and a four-phase process. The guidelines have been developed to improve clarity and transparency of reporting of systematic reviews and meta-analysis (Liberati et al., 2009).

4.4.1 Search strategy

At first an extensive and inclusive list of search terms was established using a combination of keywords, MeSh terms and text-words. The terms included menopaus* OR (peri-

menopaus or perimenopaus)* OR (post-menopaus or postmenopaus)* OR climacteric AND experiences OR perceptions OR attitudes OR attitudes towards health AND health care OR healthcare OR health literacy OR health education OR patient education OR health knowledge OR health behaviour OR information seeking OR decision making OR self-management OR self-care AND immigrant OR migrant OR non-English speaking background OR culturally and linguistically diverse OR CALD were entered. Five databases were searched including MEDLINE, EMBASE, CINAHL, PsychInfo and Scopus.

4.4.2 Inclusion criteria

The inclusion criteria were for a study to have investigated migrant women, aged 40 years or older who were experiencing natural menopausal transition or postmenopausal life. Studies exploring experiences of: the menopausal transition and/or menopause-specific symptoms, symptom self-management strategies and/or menopause-specific health care were included in the systematic literature review. Articles had to be peer-reviewed and published in English.

4.4.3 Assessment and data management

The search citations were exported to EndNote X7 which is a reference management software package. It was used to identify and remove duplicate articles. The title and abstract of remaining articles were screened for relevance based on the inclusion criteria after which further articles were excluded. Most of these articles were excluded because they reported findings of studies of non-immigrant population(s), clinical trials related to menopause, menopause-related cancers, and menopause and mental health. The remaining articles were reviewed in full. The reference lists of these articles were hand searched and additional relevant articles were identified. A data extraction table was developed which recorded author(s), year of publication, title of article, journal name, country of study, country of origin of study participants, research question(s)/objective(s), human research ethics approval, study design, sample characteristics and recruitment strategies, inclusion and exclusion criteria, data collection method(s) and instruments, definition of perimenopause and postmenopause, definition of immigrant or time lived in host country, data analysis, main findings, and limitations identified by author(s). The study characteristics

were extracted and entered into the data table. After further review more articles were excluded because they reported on a non-immigrant population, age of menopause, general health at menopause, and study participants' age was outside the inclusion criteria.

Study quality was assessed using the QualSyst developed by Kmet, Lee, and Cook (2004). The QualSyst is a scoring system to evaluate the quality of studies. It consists of two check list, one for qualitative and one for quantitative research (Appendix 1 and 2)

The findings of the systematic review were published in January 2018 in *Climacteric* and is presented in chapter 5 of this thesis.

4.5 Component 2: Qualitative Study – semi-structured interviews

The objectives of the qualitative study were informed by the findings in the systematic review and were to explore how migrant women from low- and middle-income countries experience and self-manage their menopausal transition; whether and how they access, understand, evaluate and use menopause-related information; and whether they had sought health care for menopause-related health concerns; and, if they had accessed health care, what this encounter was like.

Qualitative methods are used to understand experiences, meaning and perceptions from participant perspectives and includes the collecting of data obtained through unstructured or semi-structured processes, the organisation, description and the interpretation of verbal, textual or visual data (Hammarberg, Kirkman, & de Lacey, 2016). Semi-structured interviews consist of an outline of topics to be covered in the interview, but the participant's responses determine the course of the conversation during the interview (Green & Thorogood, 2009). The key advantage of the semi-structured interview is that informants are given the opportunity to comment on and express their lived experiences on all outlined topics while also exploring theoretically driven variables of interest (Galletta & Cross, 2013).

4.5.1 Setting

The qualitative study was conducted in Melbourne, the capital city of the state of Victoria in Australia. Australia is classified by the World Bank as a high-income country (World Bank, 2019).

It is a culturally diverse nation where 2.8% of the population report being of Aboriginal and/or Torres Strait Islander origin (Australian Bureau of Statistics, 2016a) and one in four people (26%) were born overseas (Australian Bureau of Statistics, 2016b).

At the 2016 Australian Population and Housing Census (Australian Bureau of Statistics, 2016c), Australia's population was almost 23.6 million people. Victoria's population was close to 6 million of whom nearly 4.5 million were living in the greater Melbourne region. Almost 29% of the Victorian population were born overseas and 26% spoke a language other than English at home.

Australia has a two-tiered health care system. The health care system is funded and administered by the three levels of government and is supported by private health insurance arrangements.

The Australian Government funds and administers Medicare which is the national public health insurance scheme. Medicare consists of three health care components-medical services (including visits to general practitioners (GPs) and other medical practitioners), subsidized prescriptions of pharmaceuticals and hospital treatment as a public patient. All Australian citizens and permanent resident visa holders are insured by Medicare.

The state, territory and local governments are responsible for delivering preventive services including breast cancer screening and immunisation programs, funding and managing community and mental health services, public dental health care and ambulance and emergency services (D. o. H. Australian Government, 2018).

Individuals may also choose to purchase private health insurance. Private health insurance offers individuals' additional services including treatment in privately owned hospitals, dental care and allied health services (D. o. H. Australian Government, 2018).

4.5.2 Participants

Participants were women who had migrated in adulthood, defined as 18 years and older, and were from two different geographical regions representing a substantial proportion of the Victorian migrant population: Vietnam and the Horn of Africa nations (Eritrea, Ethiopia, Somalia, South Sudan and Sudan). The 2016 Australian Population and Housing Census (Australian Bureau of Statistics, 2016c) reported that migration from both Vietnam and Horn of Africa nations had increased by up to 42% since the 2011 Australian Census. These groups were chosen based on identified immigration related barriers. Women born in the Horn of Africa nations are likely to report limited opportunities for formal education in their country of origin, and both population groups reported a medium weekly income lower than other overseas born and Australian born populations suggesting possible socioeconomic disadvantage (Australian Bureau of Statistics, 2016d). Additionally, this research sought participation from a hard to reach and underserved population of migrant women who are rarely included in research, in part due to limited English language proficiency.

Based on global evidence that the average age of onset of menopause differs between geographical areas (Palacios, Henderson, Siseles, Tan, & Villaseca, 2010) women aged between 45 and 60 years were eligible to participate in the study.

Furthermore, the study sought the views on the menopausal transition of women who were in the perimenopausal phase and of women who were postmenopausal. Menopausal status was determined using the World Health Organization definitions (Utian, 2004). Women whose menstrual bleeding had become increasingly irregular and whose last menstruation occurred in the previous 3-12 months were considered to be perimenopausal and women who have had 12 consecutive months of amenorrhoea in the absence of pathological or physical reasons were considered to be in postmenopause (Utian, 2004). Women who had undergone induced menopause were excluded as evidence suggests that women with

induced menopause often have more severe menopausal symptoms than women who experience natural menopause (Burrell, Valledor, Crowe, & Whitehead, 2010).

4.5.3 Recruitment

Diverse strategies were used to recruit study participants. Logs were maintained to track their respective achievements in recruiting women from the two target populations to the study.

4.5.3.1 *Women born in Vietnam*

Based on the 2016 Australian Population and Housing Census data (Australian Bureau of Statistics, 2016d) the five top Victorian local government areas (LGA) in which more than 60% of Vietnamese people in Victoria live are Brimbank, Greater Dandenong, Maribyrnong, Whittlesea and Yarra. An information flyer in English (Appendix 3) and Vietnamese (Appendix 4) describing the purpose of the study and the inclusion criteria was distributed widely in these areas in hardcopy at food markets, community groups, and women's groups. Flyers were also distributed electronically and in hard copy to community organisations including the Multicultural Centre for Women's Health and Women's Health Nurses working in community health services.

The researcher telephoned representatives from Vietnamese community groups and the Vietnamese Women's Union to introduce the study to them and ask for their permission to meet with them or attend community group meetings. Vietnamese-speaking researchers and students who worked at Monash University and who are part of the Vietnamese community agreed to act as key contacts.

The first connection with a community group was achieved through a Vietnamese-speaking contact person. This allowed the researcher to attend a community group at which flyers were given to group participants. After attending a second community group, the first women volunteered to participate in the study. The community worker facilitating this group distributed the flyer to other community groups and this resulted in more women

contacting the researcher volunteering to participate in the study. Women were also recruited through snowball sampling.

4.5.3.2 Women born in Horn of Africa nations

Based on the 2016 Australian Population and Housing Census data (Australian Bureau of Statistics, 2016d) more than 55% of migrants from the Horn of Africa region live in the northern and western suburbs of Melbourne and Greater Dandenong LGAs. A meeting was arranged with Family and Reproductive Rights Program workers (FARREP) in these areas. FARREP workers are specially trained female health workers who provide culturally appropriate education and resources to facilitate sexual and reproductive health session for migrant women. They work closely with Horn of Africa nations' communities and agreed to distribute the recruitment flyer and inform their communities about the research project. In the state of Victoria, Well Women's Clinics are community-based clinical services delivered by women's health nurses – community health nurses with additional training and qualifications in women's health. A meeting was organised with women's health nurses who service Well Women's Clinics in the inner and outer western suburbs of Melbourne. At this meeting the researcher gave a brief description of the study and provided copies of the study flyer to the attending nurses who expressed interest in supporting the recruitment of eligible participants.

The flyer (Appendix 5) explaining the study purpose and inclusion criteria in English was also distributed to relevant community organisations, women's groups, and community groups such as the African Community Association in Victoria, and the Ethiopian Women's Alliance of Victoria. The latter posted the flyer on their Facebook site.

A researcher who works at Monash University and who is part of the African community agreed to act as key contacts. Through him, the researcher came in contact with the Ethiopian community which resulted in the first volunteer arranging to be interviewed. After the interview she provided the study information to other members of her community some of whom also volunteered to participate.

The researcher contacted another Horn of Africa community group and met with the community resource worker. Her role is to provide support for migrants and refugees from Horn of Africa nations and facilitate referrals to relevant health and community services. She distributed the study information to eligible women and arranged a time for the researcher to attend the centre to meet with women who volunteered to be interviewed.

Regular, active follow up, through various mechanisms, with organisations and community groups was necessary for the successful recruitment of study participants.

4.5.3.3 Recruitment procedure for both study populations

The recruitment procedure followed a step by step process.

1. Women who wished to participate in the study were asked to contact the researcher using the dedicated study telephone number or send an email to the study email address (listed on the flyer).
2. Contact made via the telephone: For women who made telephone contact, the researcher screened for eligibility and sent the explanatory statement (Appendix 6 and 7) and consent form (participant copy) (Appendix 8, 9 and 10) via mail or email. The researcher then made a follow up telephone call to establish whether the woman consented to be interviewed after reading the explanatory information and, if she did, a time was arranged for the interview. Written consent was obtained on the day of the interview.
3. Contact made via email: For women who made contact via email, the researcher emailed the explanatory statement and requested permission to call the woman. Once this had been obtained, the researcher rang the woman to assess her eligibility. If she was eligible and willing to be interviewed, a time was arranged for it. The consent form was provided and signed on the day of the interview.

4.5.4 Number of interviews

Malterud and colleagues (Malterud, Siersma, & Guassora, 2016) discuss the question of sample size in qualitative research and conclude that it is determined by the power of the information. It cannot be determined from the outset and is guided by what is learnt as the study progresses. The ultimate sample size needs to consider the study aim; the specificity of the experiences and knowledge among participants; the quality of the interview dialogue; and the chosen strategies for analysis of the data. It was estimated that interviews with 12 to 15 women per geographic area would be required to generate reliable data. The adequacy of the sample size was evaluated continuously during the research process.

4.5.5 Data source

An interview guide was developed based on the Integrated Model of Health Literacy, the research questions, the published literature, and the researcher's clinical and research experience (Appendix 11). The interview guide was reviewed with the help of the supervisory team for clarity, comprehensibility and to ensure all topics related to research objectives 2, 3 and 4 were covered.

Semi-structured interviews allow for exploration of a topic but also guide what experiences and perceptions are sought. The first question asked about the general experiences of menopause, what menopause meant for the participants and whether the perception of menopause differed between their country of origin and Australia. The next question inquired what self-management strategies participants use to care for their general health and for menopause-related symptoms in particular. This was followed by asking about whether participants had accessed menopause-related information and if so whether they were able to understand the information, how they knew that the information was from a reliable source and whether they were able to use the information. The final questions related to their experiences with menopause-related health care, what parts were satisfactory and what aspects could be improved. Demographic information including age, menopausal status, year of arrival in Australia, marital status, education level obtained and employment status were recorded in hard copy (Appendix 12).

4.5.6 Data collection procedure

The semi-structured interviews were conducted face to face at a convenient and mutually agreed location (Monash University, the participant's home or in a room in the community centre where privacy was guaranteed).

Interviews were conducted in English. For women with limited English language proficiency, the interviews were conducted with the assistance of a bilingual researcher or an accredited interpreter. At the beginning of each interview, the researcher introduced herself and explained the purpose of the project to ensure participants had fully understood the nature of the research. Permission to audio-record the interview was then obtained. For women who declined this request detailed field notes were taken instead.

The interview guide directed the conversation about the topics to be explored. When necessary, prompts were used to explain and clarify questions. Demographic data were collected at the completion of the interview and recorded in hard copy.

At the end of the interview, the researcher thanked the participants and in recognition of their time and costs incurred to attend the interview, an AUS\$40 gift voucher for a local supermarket/department store were given to each participant.

4.5.7 Data management

According to Monash University Research Data Management guidelines all documents associated with the study were stored securely and in an organised fashion on a password protected server so that they could be easily located when needed. The signed consent forms (investigator copy) (Appendix 13 and 14) and demographic data were stored in a locked filing cabinet in the School of Public Health and Preventative Medicine at Monash University. Electronic files were stored on the Monash University shared drive which is password protected and backed up regularly.

Interviews were transcribed by the researcher and after checking for accuracy, recordings were deleted. In interviews that were conducted with the assistance of the bilingual

researcher or an interpreter, only the English interpretation was transcribed. The interview transcripts were securely stored on the Monash University shared drive in password protected files.

Participants were informed of the arrangements for storage of data on both the explanatory sheet for the study and before the commencement of the interview.

4.5.8 Data analysis

The data from the interviews with migrant women from Vietnam and Horn of Africa nations were analysed separately.

Data were analysed using thematic analysis as described by Braun and Clarke (2006). This method involves transcribing and familiarising oneself with the data, creating initial codes, searching for and reviewing themes, defining and naming themes and concluding by producing a report. Data analysis occurred concurrently with the interviews to capitalise on opportunities to broaden the sample, follow up on emerging themes, and rephrasing questions as required (Green et al., 2007).

The data were coded using a deductive approach which means the derived themes are strongly linked to the research topics under investigation (Braun & Clarke, 2006). The interview guide was used as framework for the initial codes.

Phase 1: familiarisation with the data

To become familiar with the data the interviews were transcribed by the researcher. Transcripts were read twice against the audio-recording to assure accuracy of transcribing. Transcripts were imported into NVivo 11, a qualitative data management software. NVivo allows for data to be organised and analysed by creating nodes. The researcher immersed herself in the data by repeatedly reading the transcripts to look for meanings and patterns.

Phase 2: generation of initial codes

Initial codes were generated mainly based on the research aim and the questions in the interview guide. The data set for each group was coded and organised separately which resulted in an extensive list of codes.

Phase 3: searching for themes

The list of codes was reviewed to identify emerging themes. The coded data set and extracts were sorted into themes. NVivo allowed for diagrammatic presentation of data to examine relationship among the themes that had been created.

Phase 4: reviewing themes

The themes were reviewed and discussed with the supervisory team. Some themes were merged and other were given a revised description. The codes inherent in the themes were reviewed to ensure a coherent pattern was seen throughout the themes.

Phase 5: defining and naming themes

In this phase each theme had to be able to represent the findings of the project. The themes were used as subheadings in the peer-reviewed publication. Some themes used the participants own words and others the meaning of the findings related to a particular research question.

Phase 6: producing the report

A description of the data and illustrative quotes were used to present the findings in peer-reviewed publications and the thesis.

4.5.9 Quality assurance in qualitative research

Qualitative research is concerned with investigating social phenomena and the meaning people give to their experiences. There are four indicators of the rigor of qualitative research; trustworthiness, credibility, transferability, and confirmability (Kitto, Chesters, & Grbich, 2008; Morse, 2015; Thomas & Magilvy, 2011).

In order to address these indicators, the following steps were implemented:

1. To support trustworthiness of data a transparent and detailed description of the research design including development of the interview guide, data collection, management and analysis was provided to readers of the papers and the thesis.
2. Diversity of participants needed to provide variation and depth of the phenomena studied. The continuous assessment of the sample population occurred throughout the data collection period in order to address the study objectives. This process aided in establishing transferability of study findings.
3. Cross-cultural and cross-lingual research present unique challenges (Jones & Boyle, 2011). In order to support trustworthiness and credibility of data the following steps were implemented. To avoid misinterpretation of what was said during the interviews, the researcher paraphrased participants' responses and reflected them back to the participant to ensure an accurate account of the information they had provided, was recorded. Paraphrasing means to repeat the meaning of the information by using different words and expressions. This gave the interviewee an opportunity to consider their answers and clarify any possible misunderstandings. As qualitative research relies on words and meaning, all study participants were offered the assistance of a National Accreditation Authority for Translators and Interpreters (NAATI) interpreter or a bilingual researcher to be present during the interviews.
4. To support trustworthiness and credibility of data transcripts were checked against the audio-taped recordings twice to ensure objective and accurate transcription of recording (Liamputtong, 2011). Transcription was completed by the researcher in order to develop a thorough understanding of the data (Braun & Clarke, 2006). Excerpt of interviews that had been carried out with the assistance of a bilingual researcher were checked for accuracy by a second bilingual researcher. Interviews conducted with the assistance of a NAATI accredited interpreter were not cross-checked. NAATI is responsible for setting, maintaining and promoting high standards and by issuing credentials for translators and interpreters' quality in services (National Accreditation Authority for Translators and Interpreters, 2019). The interviews which were not audio-taped because of participant's preference, were documented using extensive notes including direct quotes from interviewees.

5. Data analysis followed the six-step thematic analysis as described by Braun and Clarke (Braun & Clarke, 2006). Themes that evolved during the analysis were discussed with the supervisory team to ensure accuracy and consistency in order to strengthen confirmability. The data are published in two peer-reviewed publications, indicating that independent and anonymous expert reviewers found the evidence original, credible and persuasive.
6. A detailed description of the population, setting and methods were included in the manuscripts to support transferability to other groups or settings.

4.6 Component 3: Quantitative Study – cross sectional descriptive survey

This component was an Australia wide study. It used a descriptive, cross-sectional anonymous online survey addressing Objective 5 which explored primary health care providers' experiences of providing menopause-related health care to migrant women from low- and middle-income countries.

Cross-sectional research designs provide a 'snapshot' of the situation as it exists in a specific population at a given point of time (Bahna & Conrad, 2009). They may be used to identify and describe associations between variables and given that there was a lack of data exploring primary health care providers experiences providing care to migrant women in midlife it was deemed to be the appropriate research design.

4.6.1 Participants

Study participants were health care providers who practice in primary health care which included practicing General Practitioners (GP), Nurse Practitioners (NP), Practice Nurses (PNs), Community Health Nurses (CHN), Women's Health Nurses (WHN) Sexual and Reproductive Health Nurses (SRHN) and Refugee Health Nurses (RHN) and who provide health care to peri-menopausal and postmenopausal migrant women from low- and middle-income countries. These practitioners were invited to complete the online survey informed by the findings of a systematic review and interviews with migrant women.

4.6.2 Recruitment

An information flyer (Appendix 15) was created featuring a survey link, a QR code to the online survey and the study email. A distribution log of relevant national and state-based health professional associations, women's health organisations, relevant primary and community health organisations, and national primary health networks was created. The distribution log listed the organisation, contact person and their contact details, date of contact, method of contact and outcome.

Primary health networks from around Australia, health professional associations and networks including the Royal Australian College of General Practitioners, Refugee and Migration Health – GPs' special interest group, Jean Hailes Foundation, Australian College of Nursing, Australian College of Nurse Practitioners, Australian Nurses and Midwifery Federation including state and territory-based branches, Australian Primary Health Care Nurses Association, Cancer Council Victoria-Nurse Cervical Screening Program, Refugee Health Networks, Women's Community Health Networks, the Victorian Department of Health-Primary Health News, and relevant primary and women's health organisations were phoned by the researcher first in order to introduce herself and provide information about the study. Those who agreed to distribute the survey either via their newsletter, mailing list or by placing it on their websites were sent detailed information about the study purpose, the Certificate of Approval from the Monash University Human Research Ethics committee, information flyer, participant information (Appendix 16), including eligibility and a link to the survey for online completion. The researcher attended a professional development workshop for primary health nurses, where she was able to provide detailed information about the survey and distribute the flyer.

4.6.3 Sample size

This Component was an exploratory, descriptive survey. A study exploring primary health care providers experiences of offering menopause-related care to migrant women from low- and middle-income countries had not been carried out in Australia. It is unknown how many primary health care providers in Australia provide menopause-related care to migrant women from low- and middle-income countries and there is no data base of primary health care providers that captures this population group. Therefore, the survey was distributed

widely to all relevant national and state-based organisations and professional associations to maximise reach.

4.6.4 Survey development

A robust survey design is imperative in achieving the research objectives (Burns et al., 2008). The survey questions were generated through the findings of the systematic literature review examining menopause-related experiences and health care needs among migrant women; the researcher's clinical experience in primary health care; the findings from the semi-structured interviews conducted with migrant women, and the published literature examining health care providers' experiences and perceptions in their provision of health care. The survey (Appendix 17) consisted of 27 statements in four sections.

The first section had 15 statements which sought the beliefs of primary health care providers about how migrant women experience their menopausal transition, how they manage their menopause and their menopause-related health literacy skills. Study participants were asked to choose the fixed response options that reflected the degree to which they agreed or disagreed with each statement (Don't know, Not at all, A little bit, Quite a lot or A lot).

The second section examined how often primary health care practitioners provided menopause-related care to migrant women and under what circumstances they initiated menopause-related health information.

Views about barriers and facilitators to discuss menopause-related health with migrant women were sought in the third section. Five statements of possible barriers and five enablers were listed. Participants were asked to state their agreement or disagreement about each (Not sure, Disagree, Strongly disagree, Agree or Strongly agree).

The final section asked for participants' demographic characteristics including gender, age, languages spoken, professional qualification, country of qualification, year of registration in Australia, years of practice, geographic workplace setting, type of organisation and average number of hours of practice per week.

The survey was reviewed by the supervisory team who have extensive experience in quantitative research, survey design and women's health. The survey was amended according to their feedback and sent to 10 health care professionals and researchers for pilot testing. Their responses were discussed with the supervisory team and the survey was modified accordingly.

The survey was hosted by Qualtrics® (Qualtrics, 2018) (an online survey management platform licenced to Monash University).

4.6.5 Data collection, management and analysis

The survey was launched on the 18th October 2018 and was open until the 15 April 2019. In order to maximise participation, a first reminder email was sent in early December 2018 and second reminder email was sent in early February 2019.

Responses entered by participants in Qualtrics were imported into SPSS version 25. As the survey was completed anonymously, there were no privacy concerns relating to the data collected. The SPSS data file was stored on a Monash University password protected computer.

Descriptive statistics for categorical data was analysed and presented as frequencies and percentages. Some response options had small numbers and therefore responses to the statements in section one and three and some demographic information were dichotomised. Answers in section one asking about primary health care providers beliefs relating to migrant women and menopause were grouped as 'Don't know/Not at all/A little bit' and 'Quite a lot/A lot'. Responses to the statement in the third section about perceived barriers and enablers of providing menopause-related care to migrant women were grouped as 'Not sure/Disagree/Strongly disagree' and 'Agree/Strongly agree'. The following demographic variables were dichotomised: Age groups (< 45 and ≥ 45 years), professional group (General Practitioners v Registered Nurses), years practicing in Australia (<10 v ≥ 10 years) and geographic location of work setting (metropolitan v rural/remote). Primary health care providers' responses to the statements in the first and third section were

presented as proportion. Dichotomised demographic variables were compared to statements relating to opinions about migrant women's experiences and management of menopause and their menopause-related health literacy skills, and opinions about barriers and facilitators providing menopause-related care using Pearson Chi-Square, Fisher's exact test. P values <0.05 were considered statistically significant.

4.6.6 Bias

Bias in research refers to the introduction of error which can occur at every step in the research process (J. Smith & Noble, 2014).

Streiner, Norman, and Cairney (2015) argue that a disadvantage associated with online surveys is the difficulty to determine how many people have received or seen the questionnaire which means a response rate cannot be established.

Furthermore, internet-based questionnaires rely on self-selection, that is the individual selects whether to participate in the survey or not (Bethlehem, 2010). In order to minimise selection bias, the survey was distributed widely to professional associations, health services and networks and distributed either via a newsletter, mailing list or placed on their website. Furthermore, it is possible that practitioners who completed the survey have an interest in research and therefore are more likely to answer an online survey than individuals who may be less inclined to participate in research projects.

4.7 Interpretation and integration of data

The interpretation and integration of the three study components addresses Objective 6 by providing a greater understanding how migrant women born in Vietnam and in Horn of Africa nations perceive, experience and manage their menopause and their related health literacy skills and health care needs. It intends to provide information about how primary health care providers in Australia perceive menopause-related health care needs of migrant women from low- and middle-income countries.

The evidence will be used to inform implementations of relevant women's health policies. The following chapters present the results of this research.

Chapter 5: Systematic literature review

Chapter 5 includes an original paper entitled “Experiences of menopause, self-management strategies for menopausal symptoms and perceptions of health care among immigrant women: a systematic review”. It represents Component 1 of this research project addressing Objective 1 which intended to establish the available evidence of menopause-related experiences and health care needs of migrant women.

The systematic literature review was registered with PROSPERO (no. CRD42016047271) in September 2016. The anticipated starting date was 3 October 2016 and the completion date was set for 2 October 2017.

The review was guided by three questions:

1. What are the experiences of immigrant women of the menopausal transition?
2. What self-management strategies do immigrant women use to manage the menopausal transition?
3. What are the perceptions of immigrant women of menopause-related health care during the menopausal transition?

The systematic review established that migrant women’s menopausal experiences have mostly been measured using fixed-response scales predominantly assessing bothersome physical and psychological symptoms. However, very few studies explored the sociocultural meaning of menopause among migrant women. There were only three studies that had asked about menopause-related self-management strategies, all of which reported that migrant women used traditional practices and remedies from their country of origin. Studies which included questions about the migrant women’s experiences with health care providers and services found that most were dissatisfied with the care they had received. They attributed this to a lack of information offered, recommended and being prescribed therapies without information and discussion, unfriendly mannerism by health care practitioners and time constrained consultations.

The review identified that there was limited research exploring migrant women's experiences of the menopausal transition, in particular the social and cultural aspect of menopause; how they access, understand, evaluate and use menopause-related information; what their experiences with health care had been and if the experience had been unsatisfactory how to improve it. These findings informed the development of the interview guide for the semi-structured interviews with migrant women in Component 2 and the survey for health care providers in Component 3.

The findings of the systematic literature review were accepted for publication in December 2017 and published in *Climacteric* in January 2018.

5.1 Stanzel, K.A., Hammarberg, K. & Fisher, J. (2018) Experiences of menopause, self-management strategies for menopausal symptoms and perceptions of health care among immigrant women: a systematic review. *Climacteric*, 21:2, 101-110.
<http://doi.org/10.1080/13697137.2017.14219922>

REVIEW



Experiences of menopause, self-management strategies for menopausal symptoms and perceptions of health care among immigrant women: a systematic review

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ABSTRACT

Objective: To systematically review the published literature relating to experiences of menopause, self-management strategies for menopausal symptoms and health-care needs among immigrant women.

Methods: A systematic literature search of English-language publications was performed using Medline, Embase, PsychInfo, Cinahl and Scopus. Twenty-four papers reporting on 19 studies met our inclusion criteria and investigated immigrant women's experiences of menopause and/or their self-management strategies for menopausal symptoms and/or their perceptions of menopause-specific health care.

Findings: Of the 19 studies, 15 reported symptoms experienced during the menopausal transition. Three studies included questions regarding self-management strategies for menopausal symptoms and four enquired about perceptions of menopause-specific health care. Although the heterogeneity of the studies makes comparison difficult, their findings are broadly consistent. Immigrant women reported more vasomotor symptoms and other physical symptoms and poorer mental health than non-immigrant women. The few studies that investigated self-management strategies for menopausal symptoms found that these were influenced by culture and those that assessed perceptions of menopause-specific health care found that they were mostly dissatisfied with the care they had received.

Conclusion: More research is needed to improve understanding of how immigrant women manage the menopausal transition and how to provide culturally relevant menopause-specific health care.

ARTICLE HISTORY

Received 8 October 2017
Revised 26 November 2017
Accepted 19 December 2017
Published online 19 January 2018

KEYWORDS

Menopause; immigrant; health care; perceptions; experience; self-management

Introduction

Women who reach midlife will experience menopause. The paths by which their reproductive years end may vary, but for most women menstruation becomes more irregular before finally ceasing permanently. This period is called the menopausal transition. A woman who has experienced 12 consecutive months of amenorrhea without underlying pathological or physiological causes has reached menopause¹.

The menopausal experience varies but the most common menopausal symptoms reported by up to 80% of women in Europe and North America are vasomotor symptoms of night sweats and hot flushes². In contrast, Islam and colleagues' systematic review of menopausal symptoms among Asian midlife women found that fewer of them reported hot flushes and night sweats³. Inter-country comparisons indicate that, in cultures in which menopause is perceived as a natural event and indicator of maturity, wisdom and improved social standing, fewer women report menopausal symptoms⁴. This suggests that culture shapes the experience of menopause.

Menopause-specific research has predominantly focused on physical symptoms experienced by women^{3,5,6}; treatment options such as hormone therapy and complementary and

alternative therapies for menopausal symptoms^{7–9}; mind and body therapies to alleviate menopausal symptoms^{10,11}; women's knowledge about menopause and hormone therapies¹²; and attitudes towards and experiences of menopause^{13,14}.

Investigations of women who migrate from their country of origin and their experiences of the menopausal transition and postmenopausal life are rare, despite the growing body of evidence that immigration impacts on all aspects of women's health and well-being¹⁵. The aim of this review was to establish the evidence about immigrant women's experiences and perceptions of their menopausal transition and postmenopausal life; their self-management strategies for menopausal symptoms; and their perceptions of the menopause-specific health care they receive.

Methodology

Search strategies

The literature review was conducted according to the PRISMA guidelines¹⁶. The Medline, Embase, PsychInfo, Cinahl and Scopus electronic databases were searched. Search terms using a combination of keywords, MeSH-terms and text-words related to menopause* OR (perimenopaus or

peri-menopaus)* OR (postmenopaus or post-menopaus)* OR climacteric AND immigrant OR migrant OR non-English speaking background OR culturally and linguistically diverse OR CALD AND experience OR attitudes to health OR perception AND health knowledge OR health information OR health education OR health behavior OR health information seeking OR health literacy OR health practice OR self-care OR decision making were entered. Reference lists of all included articles were hand searched for any additional relevant papers not identified in the search.

Inclusion criteria

Studies were included if they had investigated immigrant women aged 40 years and older and who were in natural menopausal transition or postmenopausal life; had investigated experiences of menopausal transition; and/or menopausal symptom self-management strategies; and/or perceptions of menopause-specific health care and were published in an English peer-reviewed journal.

Assessment of study quality

For the assessment of study quality, the QualSyst developed and implemented by Kmet and colleagues¹⁷ was used.

The QualSyst provides a systematic reproducible and quantitative means of assessing the quality of studies covering a broad range of research designs. The highest obtainable score is 1.0.

Results

Search results

The electronic search yielded 728 citations which were exported into EndNote X7 (Figure 1). EndNote X7 identified 324 duplicates which were removed. Titles and abstracts of the remaining 404 articles were reviewed by two authors (K.S. and K.H.) which resulted in the removal of a further 368 articles.

Thirty-six full-text articles were reviewed and data were collated into a data extraction table which recorded research questions, research design, human research ethics approval, sample characteristics, inclusion and exclusion criteria, recruitment strategies, data collection methods and instruments, findings and limitations. Hand-searching of references cited in the 36 articles resulted in the identification of six eligible articles that were not found in the original search. After full-text review, 24 articles which report findings from 19 separate studies were included in the review. Of the 19 studies,

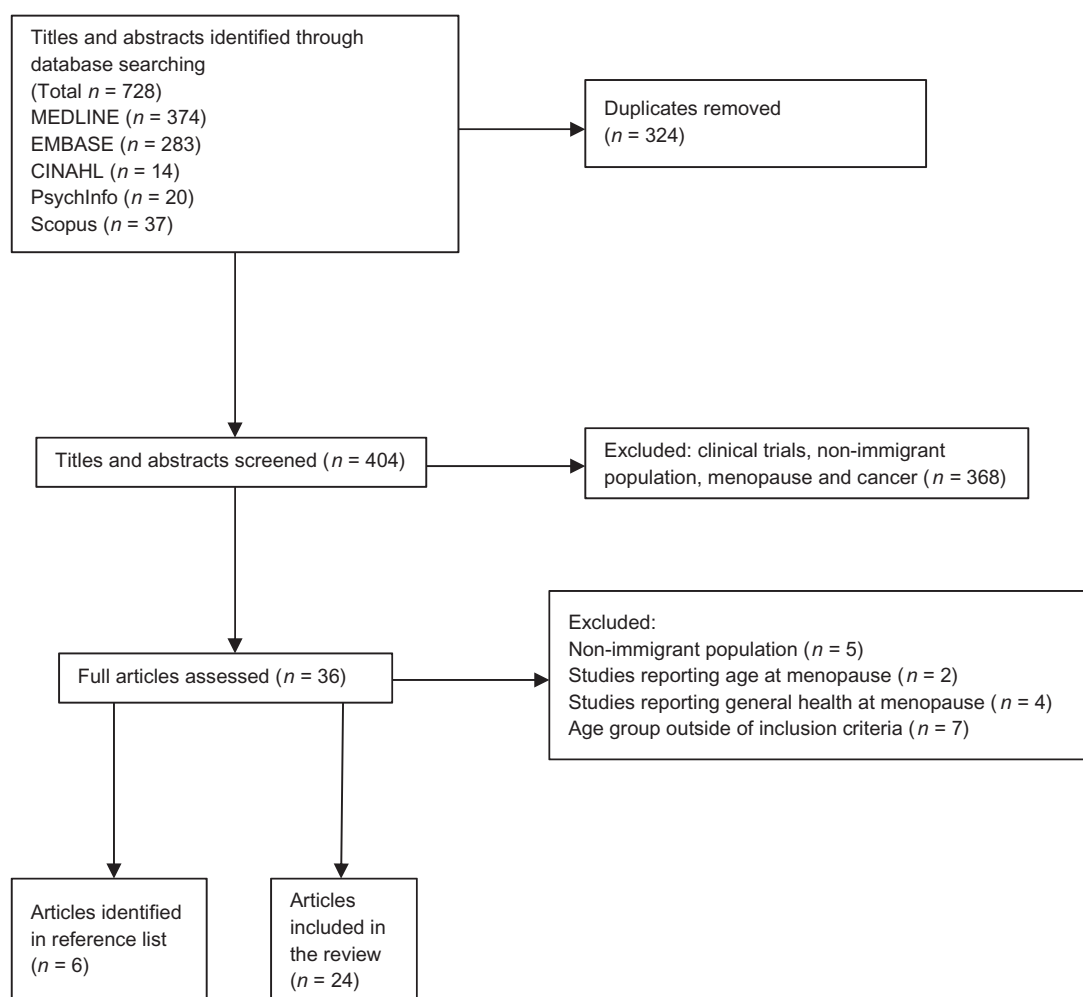


Figure 1. Study flow diagram.

16 reported symptoms experienced during the menopausal transition^{18–34}. Three of these studies included questions regarding self-management strategies^{25,26,28} and four studies^{23,26,34,35} enquired about perceptions of menopause-specific health care. Four studies explored menopause and depressive symptoms^{36–39} and one study each reported on knowledge of menopause and cardiovascular disease⁴⁰, knowledge of osteoporosis⁴¹ and the meanings of menopause³⁵.

Quality assessment

The QualSyst scores for the studies included in this review varied between 0.59 and 0.95. Detailed information on scoring criteria is available in [Supplemental Tables S1–3](#). Additionally, evidence of human research ethics committee approval for the included studies was assessed. Of the 19 studies, 15 reported obtaining ethics approval and four did not.

Methodological characteristics and main findings

Methodological characteristics and main findings are summarized in [Table 1](#). We do not believe that people should be defined by their country of birth and would prefer to use person-first descriptors like ‘women born in Korea’ and ‘women who have migrated from their country of origin to a host country’. However, for the sake of brevity, participants in the studies described will be referred to as ‘Korean [or other country of birth] women’ and ‘immigrant women’.

Study location, method and design

Of the 19 studies, five made comparison between immigrant women, women in the host country and women in the country of origin, six examined and compared immigrant women and women in the host country, and eight studies investigated only immigrant women and factors associated with menopausal symptoms. Among the studies, five were conducted in two countries simultaneously (one each in Germany/Turkey, Germany/China, Tunisia/France, USA/South Korea and United Kingdom/India), six in Australia, four in the United States, two in Israel, and one each in Spain and Sweden. Sixteen studies were cross-sectional studies of which 14 used quantitative methods^{18,20–24,27–30,32–34,36,37,40,41} and two used mixed methods^{19,23,35}. There were four articles reporting on three prospective cohort studies^{26,31,38,39}. Two of these articles reported cross-sectional data^{38,39}, one reported longitudinal data³¹ and one article reported cross-sectional qualitative data²⁶.

Samples and sample size

Of the 14 cross-sectional quantitative studies and quantitative components of the mixed methods studies, only three^{18,22,27,36,40} reported sample size calculation. Participant numbers ranged from 97³² to 13 961 in a population-based survey³⁹. Among the qualitative studies and qualitative

components of the mixed methods studies, participant numbers ranged from 21³⁵ to 75¹⁹. A total of 23 719 women provided data across the 19 studies of which 5615 were immigrant women. Only one study^{27,36,40} stipulated age at migration and years in host country as inclusion criteria. Participant exclusion criteria that were reported were hysterectomy, bilateral oophorectomy and hormone therapy^{18,22,31}, hysterectomy²⁸, severe physical disability, and mental ill-health^{20,23}.

Methods of recruitment

Four studies^{18,22,27,31,36,39,40} recruited participants from population registries, three^{19–21,23} through medical sites, and eight^{18,24,25,28–30,33,35,38,41} recruited participants from culture-specific community settings with support from key contacts and through snowballing. One study each recruited participants in a menopause clinic²⁶, through an interpreter service³², through a work place³⁴, and one study did not describe the recruitment method adequately³⁷.

Response rate

Of the 16 quantitative studies, only seven reported response rate^{18,22,27,28,31,32,34,36,39,40} which ranged from 18.2 to 92.4%.

Data sources

Data were collected by four standardized instruments specifically designed to measure menopausal symptoms and which were used in nine studies: Menopause Specific Quality of Life Questionnaire (MENQOL)^{21,27–30}; Menopause Rating Scale (MRS II)^{18,22}; the Women’s Health Questionnaire (WHQ)^{19,20,23}, and the Menopause Representation Questionnaire (MRQ)^{20,23}. Mental health was measured using the standardized Center for Epidemiological Studies-Depression Scale (CES-D)^{27,36,38} and the Mental Health Index derived from Short Form Survey (SF-36)³⁹. In addition, two standardized instruments designed to measure social support were used in two studies: Duke Social Support Index³⁹ and Psychosocial Functioning Scale³⁶. Study-specific questions were used to assess health behavior and health knowledge^{18,19,24,26,31,32,34,36,37,40,41} and two^{20,23,24} collected free text responses to open-ended questions. All instruments were translated into relevant community languages. Only the MRS II has been validated for cross-cultural research.

Definition of menopause status

Fifteen studies^{18–22,24,25,27–31,33,35,36,38–40} defined menopausal status. There was broad agreement on the definition of perimenopause as the period in which menstrual bleeding becomes increasingly irregular and the last menstruation has occurred in the previous 3–12 months, and on the definition of postmenopause as 12 consecutive months or more of amenorrhea in the absence of pathological or physiological reasons. Three studies each referred to ‘women in midlife’ and to ‘menopausal status’ without providing a further

Table 1. Methodological characteristics and main findings.

First author (year); HC; CO	Participants' characteristics	Study characteristics; design; method; data sources	Main results and conclusions
Nedstrand (1995) ³² ; HC Sweden; CO South America	Response rate 92.4% SAW, 75% SW; SAW $n = 49$, SW $n = 48$; most postmenopausal	Cross-sectional comparative; IQA; study-specific questions relating to menopause experience, use and attitudes towards HRT	Postmenopausal SAW > moderate to severe VMS than SW; SAW positive attitude towards HRT, but used rarely despite symptoms
Im (1999) ^{3,25} ; HC USA; CO Korea	Response rate not reported; $n = 119$; > 2/3 pre/perimenopausal; 55% in USA > 10 years	Cross-sectional; IQA; study-specific questions relating to ethnic identity, work satisfaction and menopause experience	Menopausal symptoms: 58% needed glasses to read, 55% back and neck aches, 48% > exhaustion; < family income, < work satisfaction, > education associated with > in menopause symptoms; self-care strategies: Ginseng, nutritional supplements, lifestyle changes
Im (2000) ^{3,25} ; HC: USA; CO Korea	Response rate not reported; $n = 21$; mean age 49.95 years, all in USA < 10 years	Cross-sectional; IDI and field notes; study-specific questions relating to meaning of menopause, immigration influences on life and menopause experience	Menopausal symptoms common and seen as natural; having sons associated with positive feelings towards menopause; middle age associated with loneliness, elderly, responsibility; marginalization negatively influenced midlife and aging; perception of having undergone unnecessary gynecological procedures
Komesaroff (2002) ²⁶ ; HC Australia; CO Greece	Response rate not reported; $n = 40$; most perimenopausal; all in Australia > 10 years	Longitudinal study; IQA and IDI – 5 waves over 2 years; study-specific questions relating to menopause experiences	Menopausal symptoms: 80% hot flushes, 82% night sweats, 85% vaginal dryness, 95% aches and pains, 95% tiredness; 92% used traditional therapies, i.e. teas, herbs; > 25% followed traditional custom (drinking small amount of petrol, adding cayenne pepper to food for blood cleansing); doctor's information unsatisfactory; prescribed treatment not followed
Mishra (2002) ^{3,31} ; HC Australia; CO NESB women from Europe and Asia	Response rate Survey 1 54%, Survey 2 92%; total $n = 8466$, NESB women $n = 756$; participant characteristic data not segregated	Cross-sectional analysis of longitudinal data; SAQ; ethnicity (COB), study-specific questions relating to menopause status and menopause experience	NESB Europe born: 57.6% back pain, 56.3% headaches, 50% severe tiredness, 31% hot flushes, 24.7% night sweats; NESB Asian born: 53.5% headaches, 52% back pain, 49.3% eye sight problems, 21% hot flushes 13% night sweats; Australian born: 54% headaches, 50% tiredness, 50% back pain, 30% hot flushes, 22% night sweats
Im (2000) ³⁵ ; HC USA; CO South Korea	Response rate not reported; SKW $n = 426$, KIW $n = 119$; most pre/perimenopausal; 55% of KIW in USA > 10 years	Cross-sectional comparative; SAQ; study-specific questions relating to acculturation and menopause experiences	SKW: 84% nervousness, 81% pain in arms and legs, 78% fatigue, 64% anxiety and depression, 63% hot flushes, 58% sweats; 64% back and neck ache, 48% exhaustion, 12% hot flushes, 6% sweats
Miller (2004) ³⁸ ; HC USA; CO Former Soviet Union	Response rate not reported; $n = 220$; most postmenopausal; all in USA > 2 years	Cross-sectional analysis of longitudinal data; SAQ; CES-D scale ⁴² and study-specific questions about acculturation and physical health	77% with CES-D scores indicating need for counseling; postmenopausal women significantly higher score than perimenopausal women; CES-D score not associated with length of time in USA
Outram (2004) ^{3,39} ; HC Australia; CO NESB women from Europe and Asia	Response rate 54%; total $n = 13\ 961$, NESB women $n = 1983$; aged 45–50 years	Cross-sectional analysis of longitudinal data; SAQ; Mental Health Index of the SF-36 ⁴³ , PCS of the SF-36, modified life events score ⁴⁴ , adapted from Norbeck	NESB European born: had highest rate in low mental health score; NESB European born: < education level, unemployment, engaged only in home duties associated with poorer mental health
Gupta (2006) ^{3,20} ; HC UK; CO India	Response rate not reported; UKA $n = 52$, UKC $n = 51$, Delhi $n = 50$; 65% postmenopausal; 82.7% in UK > 20 years	Cross-sectional comparative; IQA; WHQ ⁴⁵ , MRQ ⁴⁶ ; study-specific questions relating to attitudes and beliefs about midlife and menopause	Hot flushes: UKA 75%, UKC 60.8%, Delhi 32%; night sweats: UKA 56.9%, UKC 50%, Delhi 24%; UKA and Delhi significant > physical symptoms and depressed mood than UKC
Hafiz (2007) ²¹ ; HC Australia; CO India	Response rate not reported; $n = 203$; mean age 54 ± 6 years; 48% in Australia 10–20 years	Cross-sectional; IQA; MENQOL ⁴⁷	53% reported < stamina, 52% < physical energy, 47% aches in joints and muscles; hot flushes 34%, night sweats 30.8%; being unemployed, pre- and perimenopausal, living in Australia between 10 and 20 years associated with statistically significant > psychological symptoms
Liu (2007) ²⁹ ; HC Australia; CO China	Response rate not reported; $n = 310$; 60% postmenopausal; 61% in Australia > 10 years	Cross-sectional; IQA; MENQOL ⁴⁷	Postmenopausal women, 79% reported < memory, 74% > aches in muscles and joints, 69% > dry skin, 66% < physical strength, 66% > tiredness, 41% hot flushes, 33% night sweats
Lu (2007) ³⁰ ; HC Australia; CO Lebanon	Response rate not reported; $n = 197$; most postmenopausal; most in Australia > 10 years	Cross-sectional; IQA; MENQOL ⁴⁷	86% reported night sweats, 82.2% hot flushes, 86% > tiredness, 85% muscles and joints pains, 67% < sexual desire; < education, ↑ BMI, marital status associated significantly > frequency of VMS symptoms
Liu (2008) ²⁸ ; HC Australia; CO Greece	Response rate 91%; $n = 217$; most postmenopausal; nearly all in Australia > 20 years	Cross-sectional; IQA; MENQOL ⁴⁷	2/3 reported fatigue, < physical strength, lower backache, 50% nervousness and memory loss, and 43% hot flushes; reported traditional custom of drinking small amount of petrol for blood cleansing

(continued)



Table 1. Continued

First author (year); HC; CO	Participants' characteristics	Study characteristics; design; method; data sources	Main results and conclusions
Remennick (2008) ³⁴ ; HC Israel; CO Former Soviet Union	Response rate 96%; Israel <i>n</i> = 158, FSU <i>n</i> = 157; mean age 56 years; FSU women in Israel 12 ± 4.2 years	Cross-sectional comparative; SAQ; study-specific questions assessing subjective health	FSU women > poor mental health linked to migration factors, e.g. finding work, low income, poor housing; Israeli women > menopausal symptoms and medicalized view of menopause; FSU women had positive attitude towards aging; some FSU women perceived gynecologist as unfriendly and time poor
Hunter (2009) ^{c,23} ; HC UK; CO India	Response rate not reported; UKA <i>n</i> = 52, UKC <i>n</i> = 51, Delhi <i>n</i> = 50; 65% postmenopausal; 82.7% in UK > 20 years	Cross-sectional comparative; IAQ; WHQ ⁴⁵ , MRQ ⁴⁶ ; study-specific questions relating to attitudes and beliefs about midlife and menopause	Positive attitude towards menopause; UKA and Delhi: unlimited freedom to partake in all cultural practices; UKA aware of lack of menopause-specific knowledge, some disappointed with GP's lack of provision of menopause-specific information
Tan (2009) ⁴¹ ; HC USA; CO China	Response rate not reported; <i>n</i> = 94; mean age 51 ± 9 years; mean length of residence in USA 9 ± 7 years	Cross-sectional; IAQ; Osteoporosis Health Belief Scale ⁴⁸	Concern and awareness of relative susceptibility of osteoporosis; lacked knowledge of preventive care, and low motivation to take care of their health
Lerner-Geva (2010) ^{d,27} ; HC Israel; CO Former Soviet Union	Response rate LTR 54.5%, FSU 45.5%, Arab 79%; LTR <i>n</i> = 540, FSU <i>n</i> = 151, Arab <i>n</i> = 123; 2/3 postmenopausal	Cross-sectional comparative; IAQ; study-specific questions on illness perception, MENQOL ⁴⁷ , modified CES-D scale ⁴²	FSU and Arab women: < hot flushes, psychological and physical symptoms than LTR; < education associated with > hot flushes, mental and physical symptoms; depressive symptoms associated > hot flushes, mental and physical symptoms
Blumstein (2012) ^{d,36} ; HC Israel; CO: Former Soviet Union	Response rate LTR 54.5%, FSU 45.5%, Arab 79%; LTR <i>n</i> = 540, FSU <i>n</i> = 151, Arab <i>n</i> = 123; 2/3 postmenopausal	Cross-sectional comparative; IAQ; study-specific questions of menopausal experience, modified Vinokur and Vinokur-Kaplan Scale ⁴⁹ , modified Pearlman <i>et al.</i> perceived control scale ⁵⁰ , modified CES-D scale	FSU and Arab > depressive symptoms than LTR; higher education associated with < depressive symptoms except in FSU; being unmarried associated with depressive symptoms in LTR and FSU; longer time in Israel associated with < depressive symptoms
Delanoe (2012) ¹⁹ ; HC France; CO Tunisia	Response rate not reported; TT <i>n</i> = 35; TF <i>n</i> = 20; FF <i>n</i> = 20; mean age 57 years	Cross-sectional comparative; IAQ; study-specific questions relating to menopause and menopausal experience, modified WHQ ⁴⁵	Most TT and TF < physical strength, > fatigue, headaches, > muscle and joints pains; most TT and TF associated menopause with loss of womanhood, aging and social degradation; some TF and all French women reported no or mild transient vasomotor symptoms and rejected menopause as negative event
Boral (2013) ¹⁸ ; HC Germany; CO Turkey	Response rate GW 85%, TWB 82%, TWI 91%; GW <i>n</i> = 418, TWB <i>n</i> = 264, TWI <i>n</i> = 281; 50% postmenopausal	Cross-sectional comparative; SAQ or IAQ; Modified MRS II ¹⁵ , study-specific questions related to menopausal symptoms and immigration experience	Pre/perimenopausal TWB significantly > hot flushes and genital complaints than GW and TWI; postmenopausal TWB and TWI significantly > psychological complaints than GW
Perez-Alcala (2013) ³³ ; HC Spain; CO South America	Response rate not reported; SAW <i>n</i> = 274, SPW <i>n</i> = 301; > 1/3 of SAW and SPW postmenopausal	Cross-sectional comparative; IAQ; study-specific questions relating to hot flushes and night sweats	SAW > hot flushes than SPW; SAW < night sweats than SPW
Hinrichsen (2014) ²² ; HC Germany; CO China	Response rate GW 43.2%, MCW 18.2%, not reported for CWB; GW <i>n</i> = 420, MCW <i>n</i> = 126, CWB <i>n</i> = 218; 62% GW, 76% MCW, 42% CB pre/perimenopausal; 68% MCW in Germany for > 10 years	Cross-sectional comparative; SAQ; MRS II ⁵¹ , study-specific questions relating to menopause, HRT and immigration	CWB significantly < menopausal symptoms than GW and MCW; pre/perimenopausal: MCW significantly > severe psychological symptoms than GW and CWB; postmenopausal: MCW significantly > severe psychological symptoms than GW and CWB
Im (2015) ³⁷ ; HC USA; CO: Korea	USA <i>n</i> = 1054, KIW <i>n</i> = 243; participants characteristic data not segregated	Cross-sectional comparative; online survey; Modified Suinn-Lew Asian self-identity acculturation scale ⁵² , Depression Index for Midlife Women	Immigrants significantly < depressive symptoms compared to non-immigrants
Blumstein (2016) ^{d,40} ; HC Israel; CO: Former Soviet Union	Response rate LTR 54.5%, FSU 45.5%, Arab 79%; LTR <i>n</i> = 540, FSU <i>n</i> = 151, Arab <i>n</i> = 123; 2/3 postmenopausal	Cross-sectional comparative; IAQ; study-specific questions relating to knowledge about cardiovascular disease risk factors	Employment and higher education associated with better knowledge of cardiovascular disease

a,b,c,d,i indicate that data were generated from the same study.
 CES-D Scale, Center for Epidemiological Studies-Depression Scale; CO, country of origin; CWB, Chinese women in Beijing; Delhi, Indian women in Delhi; FF, French women in France; FSU, Former Soviet Union; GW, German women in Berlin; HC, host country; IAQ, interviewer administered questionnaire; IDI, in-depth interview; KIW, Korean immigrant women; MCW, migrant Chinese women in Germany; MENQOL, Menopause Specific Quality of Life Questionnaire; MRQ, Menopause representation scale; MRS II, Menopause rating scale; NESB, non-English speaking background; PCS, physical component summary score; SAQ, self-administered questionnaire; SAW, South American women; SKW, South Korea women; SPW, Spanish women; SW, Swedish women; TT, Tunisian women in Tunisia; TF, Tunisian women in France; TWB, Turkish women in Berlin; TWI, Turkish women in Istanbul; UKA, United Kingdom Asian women; UKC, United Kingdom Caucasian women; VMS, vasomotor symptoms; WHQ, Women's Health Questionnaire.

definition^{23,26,27,32,34,37}. Boral and colleagues¹⁸ and Hinrichsen and colleagues²² combined the definitions of pre- and perimenopause and referred to regular or irregular menstrual cycles in the previous 12 months.

Reference period

Of the studies that specifically investigated menopause-specific symptoms, eight^{19,20,22,23,26,29,32,34,35} did not report a recall period. Four studies each reported a recall period of 1 week^{18,21,28,30} and the past 6 months^{24,25,27,36}. Two studies^{33,39} reported a recall period of 4 weeks and one³¹ reported a recall period of 12 months. Of the three studies that investigated depressive symptoms, two^{37,38} did not report a recall period and one³⁶ reported 1 week as the recall period.

Experiences of the menopausal transition and postmenopausal life

The experience of menopause was investigated by enquiring about physical and psychological symptoms and perceptions of the psychosocial meaning of menopause.

Physical symptoms

Reporting of hot flushes and night sweats varied widely. The rate of hot flushes ranged from 6%²⁴ to 82.2%³⁰ and night sweats from 11.8%²⁴ to 86%³⁰ in immigrant women. There was a consistent finding, in studies where groups were compared^{18,20,32} and studies that compared immigrant women with existing data^{21,29,30}, that immigrant women reported more hot flushes and night sweats.

Physical symptoms such as skeletal and muscular pains were reported more frequently than vasomotor symptoms in immigrant women^{21,25,26,28–30}. Comparative studies^{18,20} found more physical symptoms in immigrant women than women from the host country.

Psychological symptoms

All comparative studies^{18,20,22} investigating self-rated psychological symptoms such as anxiety, nervousness, irritability and insomnia revealed that immigrant women reported more symptoms than women in the host country. In studies that did not include a comparison group, the percentage of self-rated psychological symptoms ranged from 47% to 95% in immigrant women^{21,26,28–30}.

Overall, studies investigating mental health using standardized instruments consistently observed that immigrant women reported depressive symptoms more frequently than women from the host country^{36,38,39}.

Perceived meaning of menopause

Most women reported that menopause was a natural event, accepted as an inevitable life stage^{23,25,35}, a time of mental balance and increased personal freedom and rejected the medicalized view of menopause³⁴. The cessation of

menstruation was mostly described in terms of convenience and protection against unplanned pregnancies^{23,35}. Although most women viewed menopause as a positive life stage, three studies found that immigrant women also associated menopause with loss of culture, loss of social status, and loss of health^{19,26,35}. Menopause was strongly associated with growing old, slowing down and increased physical pain, by most immigrant and non-immigrant women^{23,26,34,35}.

Self-management strategies for menopausal symptoms

Traditional medicines (not specified), Ginseng, nutritional supplements, dietary and lifestyle changes, and cognitive strategies to self-manage menopausal symptoms were used by Korean women²⁵. Immigrant women from India and Greece commonly believed that menstruation was cleansing and menstrual blood was considered a sign of good health^{21,23,26}. To counter the lack of menstruation, drinking a small amount of petrol or adding cayenne pepper to food to cleanse the blood were traditional customs followed by some Greek women^{26,28}.

Changes in health in the menopausal period require new health learning. Tan and colleagues⁴¹, investigating perceived risk of osteoporosis among Chinese immigrant women in the USA, concluded that study participants were aware of personal high risk of osteoporosis but not of the benefits of dietary calcium intake and exercise and demonstrated an overall low motivation to take care of their health. Blumstein and colleagues⁴⁰ assessed women's knowledge of risk for cardiovascular disease and reported that, irrespective of cultural background, higher educational level was linked to greater accuracy in identification of cardiovascular disease risk factors including menopausal status. Two studies reported that immigrant women generally felt they lacked knowledge about menopause and many did not associate most of their physical symptoms with the menopause but viewed them as signs of aging, psychological stress and physical overwork^{23,35}.

Perceptions of menopause-specific health care

Most women perceived menopause-specific health care as unsatisfactory^{23,25,26,34,35}. Lack of information from health-care providers^{23,26}, recommendation of treatment that was perceived as unnecessary^{23,35}, being prescribed hormone therapy without discussion and information²⁶, and gynecologist's unfriendly mannerisms^{26,34} were cited reasons for dissatisfaction. Women felt that even doctors from their own cultural background provided little information and support^{23,26}. Hunter and colleagues²³ described Indian women's disappointment with their own lack of knowledge about menopause which they attributed to the taboo of the subject in their culture. Furthermore, their Indian GPs did not address and provide information about menopause.

Discussion

This is the first systematic review of the evidence relating to immigrant women's perception and experiences of the

menopausal transition, their self-management strategies and perceptions of menopause-specific health care. Although the heterogeneity of the studies makes comparison difficult, their findings are broadly consistent. Overall, immigrant women report menopausal symptoms more often than non-immigrant women. Traditional therapies used in their country of origin were used by some women to manage menopausal symptoms, and immigrant women were dissatisfied with the menopause-specific health care they had received.

Methodological aspects

Most studies that used random sampling strategies reported lower response rates among immigrant women than among women from comparison groups^{18,22,27,31,36,39,40}. The opportunistic recruitment in ethnic community and business settings used in some studies may limit the representativeness of the study population. Furthermore, in studies that recruited through medical sites, participants may have had a more medicalized view on menopause, or more menopause-specific health concerns than other women from similar cultural backgrounds^{19,20,23,26,28}.

The symptom recall period ranged from 1 week to 12 months. A short recall period may lead to under-reporting of symptoms that occur infrequently or inconsistently and a long recall period may introduce recall bias.

Although the data collection tools had been translated into the relevant languages, they nevertheless require that the respondent has adequate literacy. To overcome this, many studies used face-to-face interviewing with bilingual researchers or interpreters. All four instruments used to assess menopausal health frame menopause negatively. Although one instrument includes questions relating to positive aspects of menopause, these were not reported. While the four instruments contain similar questions, the scoring differs, making study comparisons difficult. The cultural sensitivity has been established only for the MRS II. Establishing whether instruments are culturally sensitive is crucial as, for example, hot flushes are associated with fever in Tunisian culture¹⁹ and may therefore not be reported as a menopausal symptom.

Vasomotor symptoms are the most consistently reported menopausal symptoms in the international literature⁵³. Perez-Alcala and colleagues³³ argue that vasomotor symptoms are related to menopausal status, stating that the likelihood of hot flushes increases as women transition from premenopause to perimenopause and decrease in postmenopause. Yet, in the reviewed studies, pre- and perimenopausal statuses were reported together, which may have contributed to the wide range of reporting of vasomotor symptoms.

Years since and age at immigration was reported only in one study^{27,36,40}. Yet age at immigration is a significant contributor to integration which is linked to acculturation⁴⁰, the process by which individuals from one culture take on cultural values and practices of another culture⁵⁴. The degree of acculturation was measured using indicators such as self-reported ethnic identity, language spoken, dress, food and

religious practices in three studies only^{23,25,37}, even though it is known to influence immigrant health and well-being⁵⁵.

Experiences of the menopausal transition and postmenopausal life

The menopausal experience in this body of literature was predominantly conceptualized in terms of physical and psychological symptoms, most assuming menopause to be a negative experience. It seems that the medical construct of menopause as 'estrogen deficiency disease'⁵⁶ continues to influence current research on menopausal experience. There is no doubt that during the menopausal years women may experience bothersome physical and psychological symptoms^{57,58} but to only focus on and report negative symptoms limits understanding of how women experience this life stage. It is conceivable that menopause brings positive change to women's lives but questions reflecting this did not feature in the reviewed studies. The studies that explored the psychosocial meaning of menopause consistently reported that immigrant women perceived menopause as a natural part of life, associated any symptoms with the natural aging process and embraced the opportunities and changes this life stage offered^{23,25,34,35}.

The menopausal discourse is being called into question by Weidner and colleagues⁵⁹. They investigated occurrence of 'menopausal symptoms' across the life span in men and women and concluded that menopausal symptomatology, apart from vasomotor symptoms, increased with age in both men and women. Only vasomotor symptoms emerged as specific symptoms during the menopausal transition and all other symptoms were associated with increasing age, socio-demographic and psychological predictors. These findings may explain immigrant women's poorer mental health when compared to non-immigrant women. Immigrant women reported sociodemographic and psychological predictors related to the immigration experience such as social isolation, lack of social support, and inadequate employment opportunities as stressors in their lives. It is plausible that their poorer mental health relates to these stressors rather than their menopausal status.

Self-management strategies for menopausal symptoms

Self-management has become a popular term for health-promoting behaviors and is used in health promotion and health education, mainly in relation to people living with chronic conditions⁶⁰. The principles of self-management, defined as being actively engaged in one's health management, can be applied to behaviors that aim to achieve optimal health and health outcomes. Several studies explored self-management practices and menopause-specific health knowledge and found that immigrant women used traditional practices and therapies and had inadequate knowledge about the menopausal transition and postmenopausal health^{24-26,28,40,41}. Poor health knowledge coupled with commonly reported use of unproven and potentially harmful traditional remedies to manage menopausal symptoms may

put women at risk of accepting bothersome menopausal symptoms as inevitable and of worse health outcomes.

Perceptions of menopause-specific health services

Unfriendly mannerisms by medical practitioners, inadequate consultation times, and lack of understanding by their doctors were cited by immigrant women as the most common reasons for unsatisfactory experience with menopause-specific health services^{23,26,34}. These findings are concerning since immigrant women in the reviewed studies reported more menopause-related symptoms than women in the host countries and are likely to be vulnerable because they may have had limited choice in the decision to migrate, had limited educational opportunities in their countries of origin and have difficulties in accessing culturally relevant resources and services in their new country of residence^{61,62}.

Implications

Clinical practice

The evidence from the reviewed studies suggests that the principles of patient-centered care are particularly important in health-care professionals' interactions with immigrant women. Patient-centered care is defined as 'care that is respectful of and responsive to individual preferences, needs and values' and is predicated on shared decision-making^{63,64}. Considering evidence that perimenopausal and postmenopausal health behavior predicts health in later life⁶⁵, menopause-specific health care offers opportunities to provide health-promoting self-management skills to improve long-term health outcomes. However, such consultations require considerable time and most health-care funding models favor short consultations to contain cost and cater for high demand⁶⁶. It is unsurprising that time constraints have been cited as the most common barrier for implementing shared decision-making in clinical practice^{66,67}.

In summary, the reviewed studies suggest that culturally competent, patient-centered, non-judgmental care using shared decision-making with sufficient time allocated in consultations may improve immigrant women's experience of menopause-specific health care. This can be difficult in health-care models that favor short consultations.

Health promotion

The findings of self-management strategies for menopausal symptoms confirm the need for health education programs to promote evidence-based self-care. Strategies need to include strengthening individual health literacy skills, defined as the ability to access, understand, appraise and apply health information. Furthermore, accessible, evidence-based, and culturally competent information about the menopausal transition and postmenopausal life needs to be available through an authoritative channel⁶⁸.

Future research

Most menopause-specific research among immigrant women has focused on physical and psychological symptoms, and relatively less on self-management strategies, menopause-specific knowledge and perceptions of health care. Future investigations into immigrant women's needs of menopause-specific health services must be based on the holistic model of health and include the social and cultural aspects of menopause and menopause-specific health literacy. Data collection tools need to be neutral towards the experience of menopause and culturally sensitive to accurately capture women's experiences and barriers and enablers for optimal health and well-being in the menopausal transition and postmenopausal life. Finally, health-care providers play an integral part in immigrant women's experiences during the menopausal transition. Research exploring the perceptions of health-care providers of barriers and enablers for providing culturally competent, person-centered, menopause-specific health care is needed to guide health professional education and health-care policy.

Conclusion

This review shows that menopause-specific research continues to be influenced by the medical conceptualization of menopause as a life stage marked by physical and psychological symptoms. Inadequate menopause-specific health knowledge coupled with dissatisfaction with health-care services may lessen the likelihood of immigrant women engaging in health-promoting practices and health-screening initiatives. The findings of this review can inform health systems and governments to develop policies, practice guidelines and educational strategies to support immigrant menopausal and postmenopausal women to optimize opportunities for good health and health outcomes and enjoy a high quality of life.

Conflict of interest The authors report no conflict of interest. The authors alone are responsible for the content and writing of this paper.

Source of funding Nil.

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Chapter 6: Menopause-related health literacy and experiences of the menopausal transition and health care services among migrant women from Vietnam

Chapter 6 includes an original paper entitled “They should come forward with the information: Menopause-related Health Literacy and Health Care Experiences among Vietnamese-born Women in Melbourne, Australia”.

This chapter represents one part of Component 2, the semi-structured interviews with migrant women who were born in Vietnam. It addresses Objectives 2, 3 and 4 which were to describe the strategies migrant women use to manage the menopausal transition and their postmenopausal health; how they access, understand, evaluate and use menopause-related information; and their experiences with menopause-related health services.

The findings of the systematic review informed the development of the interview guide to be used during the semi-structured interviews with migrant women. The systematic review identified that migrant women’s menopausal experiences were predominantly assessed and described in terms of bothersome physical and psychological symptoms. There was a significant research gap of studies exploring the socio-cultural meaning of menopause, menopause-related self-care strategies, health literacy capacity and health care experiences and needs of migrant women.

Interviews with 12 women born in Vietnam were conducted in March 2018, mostly in a private room at the university or at study participants’ home. The thematic analysis of the interview transcripts identified that cultural beliefs and values shaped the women’s meaning of menopause and influenced their menopause-related self-care strategies. Cultural norms in the country of origin and host country language proficiency affected their menopause-related health literacy capacity. The implications of these findings for health promotion and clinical practice were discussed.

The findings of this study, together with the findings from the semi-structured interviews with migrant women from Horn of Africa nations and the systematic review informed the development of the survey for health care providers.

A manuscript reporting the findings of this study was submitted for publication in *Ethnicity and Health*. The reviewers suggested some revision to strengthen the paper and the revised paper has been accepted for publication.

6.1 Stanzel, Karin A., Hammarberg, Karin & Fisher Jane (2020) 'They should come forward with the information': Menopause-related Health Literacy and Health Care Experiences among Vietnamese-born Women in Melbourne, Australia (in press)

<http://dx.doi.org/10.1080/13557858.2020.1740176>

“They should come forward with the Information”: Menopause-related Health Literacy and Health Care Experiences among Vietnamese-born Women in Melbourne, Australia

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Abstract

Objectives: Health literacy refers to an individual's capacity to access, understand, evaluate and use health information to make well informed health-related decision to maintain and promote optimal health. Low health literacy is linked with worse health outcomes and is more common in people from socio-economically disadvantaged backgrounds and from culturally and linguistically diverse backgrounds and among people with limited education. Peri-menopausal and postmenopausal health behaviour predicts health in later life. This qualitative study was conducted in Melbourne, Australia. The aim of this study was to explore menopause-related health literacy and experiences with menopause-related health care among Vietnamese-born women who had immigrated to Australia as adults.

Design: A qualitative study using semi-structured interviews was conducted with women aged between 45 – 60 years and who were either in the peri or postmenopausal phase. Transcripts were analysed thematically.

Results: A total of 12 women were interviewed. Participants viewed menopause as a natural event and obtained most of their menopause-related information from family and friends. Limited English language proficiency affected their capacity to access, understand, evaluate and use menopause-related health information. They identified their Vietnamese speaking General Practitioners (GPs) as a reliable source of health information, but 'shyness' prevented them from asking questions about menopause and they suggested that GPs need to initiate menopause-related health conversations.

Conclusion: Low menopause-related health literacy among Vietnamese-born immigrant women may limit their opportunities to access information about and benefit from menopause-related health promoting behaviours. Access to menopause-related health information in relevant community languages is essential to support immigrant women to make well informed menopause-related health decisions.

Key words:

Immigrant, menopause, healthy aging, health literacy, health care, health promotion,

Introduction

The concept of health literacy has evolved and is now defined as the ability to access, understand, evaluate and use health information to make appropriate decisions regarding health behaviour and health care (Sorensen et al., 2012). The Integrated Model of Health Literacy proposed by Sorensen et al. (2012) situates this definition at the core and adds descriptions of factors that affect health literacy as well as pathways linking health literacy to health outcomes.

Low health literacy is associated with worse health outcomes and is more prevalent among people from socioeconomically disadvantaged backgrounds, migrants from non-English speaking backgrounds and those who have limited education (Australian Commission on Safety and Quality in Health Care, 2014; Berkman, Sheridan, Donahue, Halpern, & Crotty, 2011). People with low health literacy are less likely to participate in health screening, more likely to use emergency care and are at greater risk of hospitalisation (Berkman et al., 2011).

A systematic review of health literacy-related research among migrants living in the European Union found 21 investigations. These explored health literacy in eight general contexts including, chronic disease management; disease prevention; health promotion and communication; maternal care; assessment and measurement of health literacy; ethnic inequalities; migrant health and rights; and culturally competent care. Most found that limited language proficiency, low levels of formal education, and low socio-economic status were associated with low health literacy and that this influenced health behaviour, self-management of disease, and lead to worse health outcomes (Ward, Kristiansen, & Sorensen, 2019).

In Australia, population level health literacy was assessed in 2006 using the Adult Literacy and Life Skills Survey (ALLS) which was part of an international study coordinated by

Statistics Canada and the Organisation for Economic Co-operation and Development (OECD) to assess adult literacy and numeracy. The survey was supported by the Australian Government and the Australian Bureau of Statistics. The ALLS was a household survey where one person per dwelling was invited to complete the survey. 11,139 dwellings were included in the survey of which 8,988 individuals completed the survey. It found that 57% of the adult population had inadequate health literacy skills; both men and women had a similar level of health literacy; but older adults had lower levels of health literacy. The authors suggested that lower levels of health literacy among older cohorts may be due to lower levels of education rather than a decline in health literacy over time. Health literacy among migrants from non-English speaking background was below that of the general population where only 26% of people born in a non-English speaking country recorded adequate health literacy skills to enable well informed health related decisions (Australian Bureau of Statistics, 2008).

Australia is a multicultural society where more than a quarter (26 %) of the population was born somewhere else in the world (Australian Bureau of Statistics, 2016b). It has a two-tiered health care system. The Australian Government funds and administers Medicare which is the national public health insurance scheme. It comprises of three components including visits to medical practitioners, subsidized pharmaceutical benefits scheme and treatment in public hospitals. In addition, publicly funded health screening programs are delivered by state, territory and local governments. Individuals may also choose to purchase private health insurance which offer additional services including treatment in privately owned hospitals, dental care and allied health services.

The reasons for migration vary and are often determined by economic and political drivers (United Nations Migration Agency, 2018). The International Organisation of Migration defines ‘migrant’ a person who move to another country to improve their economic and

social position and improve the prospect for themselves and their families. For people who migrate for economic reasons, migration may be an empowering experience that improves their living situation. However, for those who are forced to migrate due to political unrest, migration is often characterised by social and economic disadvantage (United Nations, 2016). Migrant women are particularly vulnerable, because they may have had limited choices in the decision to migrate as they often migrate under 'family reunification' programs (Sarkissian, 2014; United Nations Population Fund, 2006). They are likely to be employed in lowly paid jobs; may have had limited educational opportunities in their country of origin; (United Nations Population Fund, 2006) and have difficulties accessing culturally and linguistically relevant health resources and health care in their new country of residence (Higginbottom et al., 2015; Small et al., 2014).

Vietnam is the fifth most common country of birth among Australians born overseas (Victorian Multicultural Commission, 2016). After the Socialist Republic of Vietnam was declared in 1976, many Vietnamese fled their country and by 1981 nearly 50,000 Vietnamese-born refugees had settled in Australia. A family reunification program followed and by 2016 nearly 200,000 Vietnamese-born people were living in Australia (Australian Bureau of Statistics, 2016a). In the state of Victoria, over 80,000 people were born in Vietnam of whom nearly 21,000 were women aged 45 years or older (Victorian Multicultural Commission, 2016)

Every women who reaches midlife will experience menopause. Menopause refers to the final menstrual cycle and is only known in retrospect 12 months after the event. The term 'menopausal transition' can be used synonymously with the term 'peri-menopause'. It describes the stage in a woman's reproductive life before menopause when menstrual cycles increasingly become irregular and the last normal menstrual period occurred within the

previous 3-12 months. The postmenopause refers to the period 12 months after the final menstrual cycle (Utian, 2004).

The menopausal transition which occurs between the ages of 45-55 years (Palacios, Henderson, Siseles, Tan, & Villaseca, 2010) can be accompanied by a number of physical symptoms, most notably hot flushes and night sweats. Some women also experience psychological symptoms including mood changes (Freeman & Sherif, 2007). Reporting of greater frequency and severity of menopausal symptoms has been associated with increased health care seeking (Avis, Crawford, & McKinlay, 1997; Guthrie, Dennerstein, Taffe, & Donnelly, 2003). In addition, health behaviour during and after the menopausal transition influence health in later life (Guthrie, Dennerstein, Taffe, Lehert, & Burger, 2004). After menopause there is an increased risk of chronic non-communicable diseases (Davis et al., 2012; Roush, 2011). Healthy lifestyles such as regular exercise and a balanced diet during the menopausal transition and beyond are crucial for a healthy postmenopausal life (Guthrie et al., 2004; Roush, 2011). In order to make well informed health-related decisions during the menopausal transition and in the postmenopausal period women need to have robust health literacy skills.

A recent review of research investigating perceptions of menopause-related health, health behaviour and health care among migrant women found 19 peer-reviewed studies, most investigating experiences of menopause-related symptoms. Four studies Hunter et al, (2009) Im & Meleis, (2000), Komesaroff et al (2002), and Remennick (2008) included questions exploring experiences with menopause-specific health care and three studies Im et al (1999), Komesaroff (2002) and Lui & Eden (2008) included questions investigating self-management strategies. These studies suggest that migrant women report more vasomotor and physical symptoms and poorer mental health than women from the host country. The authors of the

review concluded that more research is needed to better understand how migrant women manage their menopausal transition and how to provide culturally relevant menopause-specific health care (Stanzel, Hammarberg, & Fisher, 2018).

Little is known about how migrant women access, understand, evaluate and use menopause-related health resources and the barriers and enablers for adequate menopause-related health literacy. The aim of this study was to explore how Vietnamese-born women who migrated to Australia in adulthood manage the menopausal transition and their postmenopausal health; how they access, understand, evaluate and use menopause-related health resources; and their experiences with menopause-related health care.

Methods

Study Design

Qualitative methods are used to gain a deep and fine-grained understanding of individual perceptions and experiences about which little is known (Hammarberg, Kirkman, & de Lacey, 2016). In this study, data were collected using semi-structured interviews (Green & Thorogood, 2009). In semi-structured interviews an outline of topics to be covered is used as a guide but the participant's responses lead the course of the conversation. Semi-structured interviews allow interviewees the opportunity to comment on and express their lived experiences on all the topic to be explored (Galletta & Cross, 2013).

Participants and Recruitment

Women were eligible to participate if they were: born in Vietnam, aged between 45 and 60 years, and peri- or postmenopausal.

Flyers in English and Vietnamese explaining the purpose of the study, eligibility criteria and the contact details of K.S. and T.N., a Vietnamese-born bilingual researcher, were distributed

at food markets, community groups, and community and learning centres in areas with a high proportion of residents who were migrants from Vietnam. Women who wished to participate in the study were asked to telephone K.S. or T.N

Conceptual Model

The Integrated Model of Health Literacy proposed by Sorenson and colleagues (2012) acknowledges that health literacy is a process requiring four types of competencies; accessing, understanding, evaluating and using the health-related information. Access refers to the skill to search, find and obtain information. The next competency is understanding and refers to the ability to comprehend the obtained information. The capacity to evaluate the information means that the individual is able to interpret and judge the information in relation to the trustworthiness of its source and content. The final step of the health literacy process is described as the ability to communicate and use the information that was acquired (Sorensen et al., 2012). The capacity to proficiently perform each competency enables individuals to make well informed health-related decisions.

Data Collection and Procedure

An interview guide was developed based on the published literature (Stanzel et al., 2018), the researchers' clinical and research experience in women's health, the research questions and the Integrated Model of Health Literacy. The interview guide covered three topics related to the research questions.

First, participants were invited to describe their menopausal experience, including self-management strategies and experiences with menopause-related health care.

Second, health literacy skills were gauged using Sorensen's Integrated Model of Health Literacy (Sorensen et al., 2012). Participants were asked if and where they searched for

menopause-related information; whether they were able to find what they were looking for; whether the information was understandable and answered their question; how participants evaluated the trustworthiness of the source of the information; and whether the information was relevant and easy to use. Finally, the sociodemographic information including age, marital status, year of migration, level of education, and occupation was gathered at the end of the interview.

The interviews were conducted by K.S. in English at a place that was convenient for participants. Interviews were audio-recorded with permission. T.N. acted as interpreter in interviews with women who had insufficient English language proficiency to be interviewed in English. These were also audio-recorded with permission. To protect anonymity participants could either choose a pseudonym or a pseudonym name was chosen for them.

Approval to conduct the study was provided by the Monash University Human Research Ethics Committee (MUHREC 8128).

Data Management and Analysis

Audio-recorded interviews conducted in English were transcribed verbatim. For interviews conducted in Vietnamese and interpreted into English, the interpretation was transcribed verbatim. Excerpts of transcripts of interviews conducted with the assistance of the bilingual researcher were checked for accuracy by a second bilingual researcher. The transcripts were entered into Nvivo 11 for analyses. Data were analysed thematically as described by Braun and Clark (Braun & Clarke, 2006). This method involves: becoming familiar with the data through transcription; repeatedly reading the transcripts; assigning initial codes inherent to the topics in the interview guide; grouping codes into original themes introduced by participants; refining the themes; and selecting quotes that illustrate the themes. The initial analysis was conducted by K.S. Findings and interpretation were discussed with the research

team until consensus was reached. The findings are presented with illustrative quotes.

Results

Twelve women agreed to be interviewed. Five participants volunteered after reading the study flyer, the rest were recruited through snowballing. Of the 12 interviews, eight were conducted with the assistance of the bilingual researcher T.N. All interviews were conducted face-to-face; ten in the participant's home and two in an interview room at the University. The socio-demographic characteristics of the participants are shown in tables 1 and 2 and demonstrate the diversity of the sample.

[Table 1 and 2 near here]

Four themes emerged from the data.

Menopausal Experiences - It's natural, it's normal

All participants described menopause and their menopausal experience as a natural transition and any symptoms they had were either minimised or simply accepted as part of this phase of life. Many respondents mentioned not understanding what the concerns were and why anyone would actually talk much about menopause.

“I feel like we don't need to do anything, and just accept it and its normal... I didn't worry [about menopause] just because I talked to other friends who used to experience it. And they told me already about it, that's why I think, that's normal.”
(Hien)

In fact, most participants who experienced emotional symptoms that they attributed to menopause laughed about how they affected them.

“I feel uneasy and very easy to get angry with someone. If they talk to me [laughs heartily, and then laughingly says] leave me alone, don’t talk to me too much.” (Tara)

The underlying belief that menopause is part of a natural transition in life is further reflected in the self-care strategies participants employed. Exercise, dietary changes, and traditional herbs were mainly used to manage any symptoms and menopausal and postmenopausal health.

“Sometimes I just go out for exercise [and] I just drink tea, some herb tea. That’s what I learned and I apply [laughs].” (Hanna)

“... because now I take a vitamin, ... and I eat a lot of fruit and veggie. Vitamin C, vitamin D, because they [doctor] said that with my age I have to do more D to support my bones.” (Tara)

The perception of menopause as normal and transient was reinforced by advice and recommendations given by the Vietnamese-speaking general practitioners (GPs) participants had consulted, most of whom did not offer any medical intervention.

“One day I asked my female doctor and she, she said to me that’s normal, every woman has to go through the time. Some woman got difficulty [time], some woman get easy [time].” (Hanna)

On the occasions where GPs prescribed medications, participants were reluctant to take them. This applied equally to medication for menopause-related symptoms and to other medications such as analgesia and sleeping tablets. Their reluctance was based on fears of unwanted side effects and the belief that the medication was not necessary.

“I go to see the doctor. And the doctor went after checking and she said that everything functioned well. So she ask about my age and she think that I may have menopause and she prescribed some medication for me, [but] I didn’t take it, I didn’t care for it ...” (Linh)

“I went to the family doctor and he tell me about like is difficult to sleep and he give me some medication. When I take the medication, I sleep so well. But I think if I take the medication I, it will reduce my memory it makes the symptoms more severe. That’s why I didn’t use it.” (Tien)

Influence of Culture on the Experiences of Menopause

Participants were asked about how they thought their culture of origin affected their experience of menopause. They did not elaborate whether there are any cultural differences in perceptions of menopause between Australia and Vietnam because they were unaware of how people born in Australia view menopause. However, participants’ reflections indicated that their experience of menopause was influenced by both Vietnamese and Australian culture.

Most participants reported that their personal experiences are similar to their contemporaries in Vietnam; they seek support from friends and family and mainly use traditional therapies to manage any bothersome menopausal symptoms.

“When I used to work in Vietnam, I had some colleagues, some were younger and some were older than me. Some of them they experienced menopause and they talked to me about the experience and now like I expected what will happen and that’s why I find it easy to overcome, that I don’t have any shock... [A] few years ago I had a friend who is younger than me and she got menopause some symptoms, and I can advise her and ... [I said] it is common don’t worry about it.” (Hien)

“In Vietnam the people use Chinese herbal, Vietnamese herbal to treat the menopause.” (Hanh)

Participants reflected that there are few health services and little health information for women in Vietnam and no menopause-related health care and health information. This was perceived partially due to a lack of government policies and health care funding.

“I don’t know if now they have changed, but I think that they not um concentrate on the... people’s health. They don’t talk about menopause, yeah, ... they don’t think that this is important with them the woman’s um you, you have to take care of yourself.” (Tara)

Hanh, reflected on how the lack of health promotion programs in Vietnam influences people’s health behaviour. She believed that this is the reason why people born in Vietnam do not engage in health promotion and only seek medical care for illnesses.

“Like most of [Vietnamese] people just feel pain, feel something wrong with the body [and then] go to GP straight away. [They] no worry about the future or worry about information about that sickness or something ...” (Hanh)

All participants had embraced the Australian health care system, and many attended cervical and breast-screening programs which are offered free of charge to women in Australia. Some sought information from their GPs about menopause-related symptoms.

“I will follow the recommendation and guidelines in Australia, the medical um Western approach. I hope that I can, when the symptoms are more severe I will go the family doctor and ask her advice how to improve it.” (Quy)

Barriers for Menopause-related Health Literacy

When asked about when, why and how participants sought information about menopause it was apparent most used the experiences of their peers or female relatives as their main source of information.

“I didn’t search for any information just talking to friend and they share some experience.” (Tien)

Few searched for menopause-related health information from other sources. Those who did accessed it from a Vietnamese language website or the local library. Both sources had perceived limitations. The internet only offered general health information and the menopause-related books in the library were in English and participants reported that their ability to understand and apply the knowledge was limited.

“I am ... not very well in English that’s why I checked reading about information. When this one I understand and I apply for me. And this one I don’t understand so I leave it.” (Hanna)

In addition to the apparent difficulties in accessing and understanding information, participants showed limited ability to evaluate the health-related information they had accessed. Information was judged based on whether it suited the individual’s life philosophy as demonstrated by Tara

“[You] have to read the book to know is it a good book or not. So I think that people who recommend to me but I still believe in the ... [looking for word] um, my thinking, my reading and my trusting.”

Appraising health information offered on the internet poses particular challenges for individuals with low health literacy as it is difficult to filter, judge and evaluate the quality of the information and the trustworthiness of its source.

Participants who had accessed information from Vietnamese language websites and from YouTube were asked how they knew that these sources were trustworthy. The websites were judged as reliable because participants believed that they were hosted by the Vietnamese government. Although the information gathered from YouTube had been published by lay people, some participants had implemented the recommendations. They were aware that it was difficult to determine the reliability of this source. But because the recommendation they had followed related to eating specific foods, they believed that this could not be dangerous and therefore judged it as safe as indicated by Tien:

“Like it’s just food. It’s not harmful it’s ... you can try.”

When asked whether the information was easy to use and relevant to participants’ values Tara commented:

“If something [is] useful I write it down and follow it if I can. And if not, if I could not follow it maybe just a little bit follow” [laughs].

A follow up question to ascertain what additional sources of information participants accessed revealed that most identified their GP as a trustworthy and reliable source of information and consulted her or him when they experienced health concerns which they believed were menopause-related.

Barriers and Enablers for optimal Menopause-related Health Care

Although participants’ perception that menopause-related health care is not a priority in Vietnam and most had learned about menopause from female family members or friends, they had taken up the opportunities for health screening offered by the Australian health care system. Some had also consulted their Vietnamese-speaking GP about menstrual changes and

others had used consultations for non-menopause-related health problems to ask about menopause.

“I go to the family doctor not for the menopause purpose, I just wanted to have a screening test ...the Pap test. And then I asked the family doctor, I only have worries about whether if we have menopause after 50 years old is good for your health. And she said is okay if you are 48, the normal range. That is why she only answer the question, and she didn’t give any further information.” (Minh)

Participants expressed regret that GPs did not discuss the implications of menopause for their health. They reported that in Vietnam doctors have a high standing in the community and they were therefore ‘shy’ about asking their GPs menopause-related questions. To allow Vietnamese-born women to be educated about midlife health and menopause participants suggested that GPs need to initiate conversations about menopause.

“I think the, the doctor have to welcome, has to ask, invite question. They [women] silent, in you know in my culture. We respect, high respect doctor. Maybe they [doctors] decide to ask her [patient] about that [menopause]. But they [women] say okay, okay, they just say yeah, yeah, they not show, show emotion, they keep inside. Like me, they [do] not ask important questions with [the] doctor, or they don’t want to answer any questions. And they [women] shy and [that’s the] reason why women that were born in Vietnam are unlikely to come out and straight up [say or ask] what they need and what they want and what worries them. That’s the point, I think the main point.” (Hanna)

“She [the doctor] didn’t give any further information. I would hope to receive the advice from the doctor, she explains further about the symptoms, the problems, the health problems as well, not only menopause and um, give advice what to do but

actually like according to our Asian culture. [But] we are more likely to be shy and the doctor just don't say. So the doctor should come forward with the information and not wait for the person to ask." (Minh)

Participants described their preference to consult with female health care practitioners and the difficulties in finding a female Vietnamese-speaking GP.

"No, I will not trust a male doctor because I prefer a female doctor to check over my general health." (Xuan)

"He is a man and off course he is Vietnamese so he can understand what I said. But he is a man so it's difficult for me to share some woman's problems. So I am looking for a female doctor who can speak Vietnamese, but it's hard." (Linh)

Many participants described their GPs as time poor and rushed and some even felt that they were only interested in writing a prescription and were not inviting questions.

"The GPs are not much help because they have less time for any patient. They just have about 5 or 10 minutes for one patient and so that's not enough time for us to ask anything. They just check, uh ... how do you feel and she writes a prescription."
(Tara)

Finally, language competency was the most commonly identified barrier for access to health care. Eight of the 12 participants were unable to converse in English and the remaining four recognised the limitations in their English proficiency and as a result chose Vietnamese-speaking GPs.

“I think all Vietnamese, especially Vietnamese no speak English, because we go, normally, we go to the Vietnamese doctor. And she check with us, [in] my language.”
(Hanna)

One participant recounted her experience of having a mammogram. Because she was able to follow the simple mammogram procedural instructions the health practitioner assumed that she also understood the more complex follow-up instructions. However, this was not the case and she felt inadequately informed about what she was expected to do next. The language barrier theme was recurring and anecdotes highlighted how it hampered access to optimal care.

When I went to the hospital and my children took me there. She [daughter] just helped me with the administration information and with the officer there. And when I go inside [clinical room] they just stay outside and I work with the doctor. Luckily it's a female doctor, and um because she said to me you can take of your coat and I understand it. And she said that like just sit, sit close to the machine or she just helped me to do this. So I think she [health care practitioner] maybe [think] she don't need interpretation because of that. But the limitation is, I just can have a medical check-up of my body but when I want to ask information, I don't understand English, so yeah that's the problem.” (Linh)

Discussion

The findings of this study are that women born in Vietnam who had migrated to Australia perceive menopause as a natural phase of life that does not require specific health care; rarely seek menopause-related health care or health information; and want GPs to opportunistically initiate discussion of menopause and provide menopause-related health information when they consult them. Women who had sought menopause-related health information found little

information available in Vietnamese and described lack of English language proficiency as the greatest barrier to accessing, understanding, evaluating and using health-related information. Taken together, the findings of this study suggest that important opportunities for women to learn about health behaviours associated with healthy ageing are missed.

Adequate health literacy is linked with optimal health outcomes (Berkman et al., 2011; Kreps & Sparks, 2008). Sorensen and colleagues' (2012) model of health literacy has mostly been examined in quantitative surveys using questions with fixed response options. Pleasant, McKinney, & Rikard (2011) identified gaps in health literacy research, including the lack of comprehensive health literacy measures. They suggested that in order to gain a thorough understanding of people's health literacy, investigations need to explore how people access information; and what the barriers and enablers are to understand, evaluate and use health information to make well informed decisions. This study addressed this gap by using qualitative methods to generate in-depth understanding of experiences and perceptions about which little is known (Hammarberg et al., 2016; Malterud, Siersma, & Guassora, 2016).

Furthermore, Aldoory (2017) identified a lack of community-based health literacy research. She argues that health literacy research outside of the health care setting is needed to explore health behaviours in order to prevent and reduce chronic conditions and diseases. This study addressed this gap by recruiting participants in community setting and conducting the research outside the health care context. Further strengths of the study include that participants were diverse in terms of menopausal status, age, length of time in Australia, marital status and educational status; and that volunteers who did not speak English were enabled to participate with the assistance of a bilingual, bicultural co-researcher. Cross-cultural and cross-lingual research pose unique challenges (Jones & Boyle, 2011). As qualitative interviews rely on

participants' verbal accounts, some pivotal information may be lost in interpretation, particularly if the interpreter is unfamiliar with the cultural context of the study (Jones & Boyle, 2011). To minimise this risk the research team included a Vietnamese-born researcher who is fluent in Vietnamese and English and familiar with Vietnamese culture.

Access refers to the ability to 'seek and find' health-related information. Our data suggest that culture influences access to menopause-related health information. In high resource countries health care providers are accepted as primary sources of health advice. If women discuss menopause-related issues with their female peers it is mostly done after consulting a health care provider and in order to process the information (Guthrie et al., 2003, 2003; McCloskey, 2012). This contrasts with Vietnamese-born women living in Australia, who primarily seek advice about menopause-related symptoms from older female relatives and friends and only occasionally use health care providers, the internet and printed material as sources of information. This may in part be explained by cultural practices in the country of origin where the initial source of health information is family and friends. Bennett Kimbrough (2007) made similar findings when she reported that migrants from East Asia, Africa, South and Middle Americas living in the US believed that health and illness were private matters and therefore the initial source of health information was trusted family members and peers. Our data indicate that participants had limited knowledge about how and where to access information. The inability to access information leaves individuals vulnerable as it increases the likelihood of learning through informal sources which may provide incorrect and potentially harmful information.

Findings from the semi-structured interviews suggest that limited English language proficiency and lack of accessible information in the Vietnamese language are significant barriers for Vietnamese-born women's ability to understand and evaluate menopause-related information. Sorensen et al (2012) define 'understanding' as the capacity to comprehend

health-related information and ‘evaluation’ as the processing and judging of information. The ‘understanding’ and ‘evaluation’ component of health literacy have been described as the ability to derive meaning from words and numbers in the medical context (Peerson & Saunders, 2009). Killian and Coletti (2017) argue that health professionals’ vernacular act as a barrier for patients to understand and evaluate health-related information. To promote better health information communication, health literacy recommendations have been established to guide health care organisations and health care providers in improving the health literacy environments. The recommendations include implementing policies and systems at an organisational level; integrating health literacy into education of both consumers and health care professionals; and ensuring effective communication by providing directions for the development, review and improvement of written information (Australian Commission on Safety and Quality in Health Care, 2017). Despite this, studies conducted in the United States and Australia on the readability of health-related information indicate that the content of most health information websites (Charbonneau, 2012; Cheng & Dunn, 2015) and printed material exceed the reading level of the average person (Charbonneau, 2013). In addition, the inability to communicate proficiently in the dominant language adds a further barrier. Investigations exploring migrant women’s experiences with health care services reported that lack of health information in community languages and limited access to interpreter services have been cited as significant challenges for accessing health care, and understanding and evaluating health-related information (Higginbottom et al., 2015; Mengesha, Dune, & Perz, 2016; Morris, Popper, Rodwell, Brodine, & Brouwer, 2009; Tsai & Lee, 2016). Understanding of health and illness is influenced by culture (Andrews & Boyle, 2008; Shaw, Huebner, Armin, Orzech, & Vivian, 2009). Kreps and Sparks (2008) suggest that cultural beliefs and values inform perceptions about health and illness including causes and treatment of diseases. They argued that this may account for the low participation rate in health screening programs

among migrants. In addition, cross-cultural studies investigating experiences of menopause indicate that negative attitudes towards menopause are linked to reporting negative experiences. However, in cultures where menopause symbolises wisdom and maturity, menopause is experienced as a positive natural life transition (Flint, 1975; Stewart, 2003). The Vietnamese-born women in this study perceived menopause as a natural life phase, and consequently rarely consulted their GPs about menopause-related physiological changes. Those who accessed menopause-related information independently or consulted their GPs about menopause-related matters followed these recommendations only if they aligned with their culturally influenced health beliefs. As a result, Vietnamese-born women may miss out on the benefits from menopause-related health information relevant to healthy aging.

Individuals' health literacy is facilitated by a health care system that understands and acts upon the interrelated factors influencing health literacy. In their systematic review of experiences among migrant and refugee women in accessing sexual and reproductive health care in Australia, Mengesha and colleagues (2016) found that difficulties navigating the health care system, including lack of multilingual resources, were significant barriers in accessing care and information. These findings are consistent with our data where Vietnamese-born women were unable to access menopause-related health information in their language. To overcome these language barriers participants consulted Vietnamese-speaking GPs which was possible due to the large number of Vietnamese-speaking GPs in their local community. However, when participants attended screening programs for the general population it became apparent that participants were missing out on information and the opportunity to ask questions about procedure, results and follow up.

Implications for Policy, Practice and Research

Improving access to health information and other resources in the relevant community language is required to improve migrant women's knowledge about peri-menopausal and

postmenopausal health. Furthermore, resources should be developed in consultation with relevant stakeholders from the community, provided in a variety of mediums including written, visual and audio resources and promoted through public awareness campaigns in multicultural settings.

Routine health care consultations with primary health care providers offer the opportunity to actively screen and discuss health behaviours and make recommendations to foster optimal health outcomes in later life. Research identifying barriers and enablers for primary health care practitioners to initiate discussions about health behaviour at the time of menopause and after to meet the menopause-related health information and care needs of migrant women is essential to inform health care policies and practice.

Conclusion

This investigation has examined how migrant women born in Vietnam manage the menopausal transition and their postmenopausal health, their menopause-related health literacy skills and their perceptions and experiences with menopause-related health care. Our findings suggest that Vietnamese-born women perceive menopause as a natural phase of life, and therefore rarely seek information or consult authoritative sources about the health implications of menopause. As a result, they may miss out on health promoting opportunities that enable well informed health-related decision during the peri-menopausal and postmenopausal phase and ensure optimal health outcomes in later life.

Acknowledgments

Karin Stanzel is supported by the Australian Government Research Training Program Scholarship. Jane Fisher is supported by the Finkel Professorial Fellowship, which is funded by Finkel Foundation.

Table 1: Socio-demographic Characteristics

	Women (n = 12)
Age group	
45-49	3
50-54	2
55-60	7
Menopausal status	
Perimenopausal	3
Postmenopausal	9
Average age at menopause	48
Marital status	
Never married	1
Married	6
Widowed	1
Divorced/separated	4
Level of completed education	
Primary School	7
High School	2
Tertiary/university	3
Employment	
Employed (casual only)	3
Home duties	9
Years in Australia	
1-10	3
11-20	2

21-30	5
> 30	2

Table 2: Individual Participant Characteristics (N = 12)

Pseudo-nym	Menopause status	Year of Migration	Interview with interpreter	Level of education	Paid Employment
Thi	Peri-menopausal	1998	Yes	Year 7	No
Tara	Post-menopausal	1995	No	Year 12	No
Hanh	Post-menopausal	1998	No	Bachelor In Pharmacy (Vietnam)	Yes-casual
Hien	Post-menopausal	2015	Yes	Bachelor in Finance (Vietnam)	No
Linh	Post-menopausal	2014	Yes	Year 12	No
Tien	Post-menopausal	2014	Yes	Completed Primary School	No

Hanna	Post-menopausal	1991	No	Bachelor in Literature (Vietnam) Cert IV in Aged Care (Australia)	Yes-casual
Lani	Post-menopausal	1980	No	Some Primary School	No
Mingh	Post-menopausal	1999	Yes	Year 9	Yes – casual
Hung	Post-menopausal	1987	Yes	Year 6	No
Xuan	Peri-menopausal	1988	Yes	Year 9	No
Quy	Peri-menopausal	1995	Yes	Year 10	No

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Chapter 7: Menopause-related health literacy and experiences of menopausal transition and health care services among migrant women from Horn of Africa nations

Chapter 7 includes an original paper entitled “Not everybody is an internet person: Barriers for menopause-related health literacy among immigrant women from the Horn of Africa nations”.

This chapter represents one part of Component 2, the semi-structured interviews with migrant women from Horn of Africa nations. It addresses Objectives 2, 3 and 4 which were to describe the strategies migrant women use to manage the menopausal transition and their postmenopausal health; how they access, understand, evaluate and use menopause-related information; if they had used menopause-related health services and if so how satisfied they were with the care they had received.

The findings of the systematic review informed the development of the interview guide to be used during the semi-structured interviews with migrant women. The systematic review established that migrant women’s menopausal experiences were mainly explored in terms of unpleasant physical and psychological symptoms; and that there was a significant knowledge gap about the socio-cultural meaning of menopause; menopause-related self-care strategies, health literacy and health care experienced and needs among migrant women.

11 interviews with women from Horn of Africa nations were conducted between March 2018 and May 2018, mostly in a private room at community centres or at study participants’ home. The thematic analysis of the transcripts of the interviews identified that cultural norms, limited formal education and literacy, and differences in health care systems and health care priorities between their country of origin and Australia influenced migrant women’s menopause-related health literacy capacity. The implications of these findings for health promotion and clinical practice were discussed.

The findings of this study together with the findings from the semi-structured interviews with migrant women from Vietnam and the systematic review provided important information for the development of the survey for health care providers.

A manuscript reporting the findings of this study was accepted for publication in the Health Promotion Journal of Australia on 25 November 2019 and published online 3 February 2020.

7.1 Stanzel, Karin A., Hammarberg, Karin & Fisher Jane (2020) 'Not everybody is an internet person': Barriers for menopause-related health literacy among immigrant women from the Horn of Africa nations. Health Promotion Journal of Australia.

doi.org/10.1002/hpja.326

'Not everybody is an internet person': Barriers for menopause-related health literacy among immigrant women from the Horn of Africa nations

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Funding information

Australian Government Research Training Program Scholarship; Finkel Professorial Fellowship; Finkel Foundation

Handling Editor: Sarah Ireland

Abstract

Issue addressed: Changes in health require new learning. There are increased risks of chronic noncommunicable diseases after menopause and positive health behaviour during the peri-menopausal years and beyond are crucial for a healthy postmenopausal life. In order to implement health promotion messages, women require adequate health literacy skills in order to achieve better health and access to appropriate health care.

Methods: This qualitative study explored menopause-related health literacy and experiences of menopause-related health care using semi-structured interviews with women from the Horn of Africa nations who had migrated to Melbourne, Australia.

Results: Participants viewed menopause as a normal life phase and did not see the need for accessing menopause-related information and care. Limited education, low literacy and being unfamiliar with the internet were barriers to health literacy. Participants' preferred health care providers who could converse in their first language, but regretted their lack of proactive engagement in providing menopause-related information.

Conclusion: Primary health care providers need to be aware that immigrant women from the Horn of Africa nations have poor health literacy and may be unaware of the benefits of positive health behaviours during and after menopause. Offering menopause-related health promotion opportunistically may lead to better postmenopausal health for this group of women.

So what? Health promotion and education programs codesigned with community stakeholders may be effective in engaging immigrant communities to improve menopause-related health literacy.

KEYWORDS

health behaviour, health literacy, health promotion, immigrant women, menopause, midlife

1 | INTRODUCTION

Menopause is a transitional life phase and most commonly occurs between 45 and 55 years of age.¹ After menopause the risk of noncommunicable diseases such as cardiovascular disease² and

osteoporosis³ increases. Ageing, changes in hormone levels and poor health behaviours contribute to this. Risk can be mitigated through health promoting behaviours. Hence, health behaviours around the time of menopause influence healthy ageing.⁴

In order to understand health promotion messages and apply health behaviours that promote optimal health in later life,

individuals need to have adequate health literacy skills. Sorensen and colleagues⁵ conceptualised the Integrated Model of Health Literacy. It consists of different components and determinants, and describes the pathways linking health literacy to health outcomes. The model defines health literacy as the capacity to access, understand, evaluate and use health information and services, which is needed to make well-informed health-related decisions. This capacity is at the core of the model and it is influenced by antecedents including situational determinants (eg individuals' use of media, physical environment, social support, and family and peer influences); personal determinants (eg age, race, gender, socio-economic status, education, occupation, employment, income and literacy) and societal and environmental determinants (eg demographic situation, culture, language, political forces and societal systems).

Inadequate health literacy has been linked to low participation in health screening and health promotion programs, increased use of emergency care and increased risk of hospitalisation.⁶ To improve health behaviours related to chronic diseases, health literacy interventions in primary care have been implemented. Taggart and colleagues⁷ completed a systematic review of 52 studies investigating interventions to improve health literacy relating to behavioural risk factors for chronic diseases. They found that both group and individual level interventions improved health literacy and health behaviours including smoking cessation, better diet and increased physical activity.

Furthermore, health literacy research shows that inadequate health literacy is more prevalent among people with limited education, from socio-economic disadvantaged backgrounds, and among immigrants from non-English speaking background.^{8,9} Yet, there are limited investigations evaluating interventions to improve health literacy among these vulnerable groups including migrant populations.¹⁰

Australia is a pluralist society. The 2016 Australian Census of Population and Housing data showed that 26% of the population was born in countries outside of Australia.¹¹

Migration is most commonly initiated for economic and political reasons. For those who migrate to improve their economic position, migration can be an empowering experience.¹² However, for those who are forced to migrate due to armed conflict, natural disasters or persecution in their country of origin, it is driven predominantly by needs for safety and survival.¹³

The recent history of the Horn of African nations (Eritrea, Ethiopia, Somalia, South Sudan and Sudan) is marked by war, civil unrest and environmental crises. The war between Eritrea and Ethiopia; between Sudan and Somalia; and recurring droughts and famine in this region have resulted in millions of people being internally and externally displaced.¹⁴⁻¹⁶ Many live in refugee camps in neighbouring countries for years before being resettled in countries such as Australia under the Refugee and Humanitarian visa program.¹⁷ Women are particularly vulnerable in situations of forced migration.¹⁸ In 1989, the Australian Government recognised the unique gender-based risks for women who were unaccompanied by a male relative, and introduced the 'Women at

Risk' program which prioritises unaccompanied refugee women for resettlement.¹⁷

In the Horn of Africa nations life expectancy for women currently ranges from 58.3 years in South Sudan to 67.8 years in Ethiopia.¹⁹ There are no reliable data on life expectancy of women who were born in the Horn of Africa nations and migrated to Australia. Some studies report improved health status in migrants who migrated from low- and middle-income countries to high-income countries. This is thought to be the result of having better access to health care and health promotion and screening programs which are uncommon in lower income countries where health care systems largely focus on cure and interventions rather than prevention for noncommunicable diseases.²⁰⁻²³

Little is known about menopause-related health literacy among immigrant women, including how they access, understand, evaluate and apply menopause-related information and care.²⁴ The aims of this study were to describe how women who were born in the Horn of Africa nations and migrated to Australia in adulthood experience and manage their menopausal transition; how personal, situational, societal and environmental factors influence their health literacy skills; and explore their experiences and satisfaction with menopause-related health care.

2 | METHODS

2.1 | Study design

Qualitative research methods provide fine-grained knowledge about individual experiences. This study used semi-structured interviews to gain deep understanding of menopause-related experiences of women in midlife.

2.2 | Setting

The study was conducted in Melbourne, Australia where 28.4% of residents were born overseas.¹¹ The 2016 Australian Census of Population and Housing reported that nearly 21 000 people living in Victoria were born in Horn of Africa nations and had arrived in Australia either under the Refugee and Humanitarian or the Family Stream Migration program since the 1990s.²⁵

2.3 | Participants and recruitment

Women aged between 45 and 60 years, who were born in one of the Horn of Africa nations, migrated as adults and were peri- or postmenopausal were eligible to participate. Flyers providing information about the purpose of the study, eligibility criteria for participation and contact details of the researcher were distributed widely to community health services, community learning centres and community groups in areas with high proportions of residents who had migrated from the Horn of Africa nations. Community leaders were

contacted to secure their support for the study and permission to attend community meeting places.

2.4 | Data collection and management

An interview guide was developed based on the published literature,²⁴ the investigators' clinical and research experience in women's health, and study aims. Three broad topics guided the interviews: participants' experiences and management of menopause; their capacity to access, understand, evaluate and use menopause-related information; and their experiences of menopause-related health care.

Once eligibility had been established interviews were scheduled and conducted at locations convenient to participants. An accredited interpreter assisted in interviews with women who had insufficient English language proficiency to be interviewed in English. Written informed consent was obtained before the interview. Interviews were audio-recorded with permission. The audio-recorded interviews were transcribed and entered into NVivo for data analysis. In interviews that were conducted with the assistance of an interpreter, only the English interpretation was transcribed. To protect anonymity participants were given a pseudonym.

2.5 | Data analysis

Data were analysed using thematic analysis as described by Clark and Braun.²⁶ This method involves six phases: familiarisation with the data by transcribing and repeated reading of the transcripts; development of initial codes based on the topics of the interview guide; grouping of codes into preliminary themes; refining of the preliminary themes into final themes; and generating a report. The initial analysis was conducted by KS Findings and interpretation of the data was discussed with the research team until consensus was reached.

2.6 | Ethics approval

The study was approved by Monash University Human Research Ethics Committee (MUHREC 8128).

3 | RESULTS

Eleven women agreed to be interviewed. All interviews were conducted face to face either in the participants' homes or in a private room at a community centre. Four interviews were conducted with the assistance of a qualified interpreter. The socio-demographic characteristics of the participants are shown in Tables 1 and 2.

Participants were diverse in terms of age, menopausal status, country of origin and level of education. Most participants had

TABLE 1 Participants' socio-demographic characteristics

	Women (n = 11)
Country of birth	
Eritrea	2
Ethiopia	3
South Sudan	4
Sudan	2
Age group	
45-49	5
50-54	3
55-60	3
Menopausal status	
Peri-menopausal	7
Postmenopausal	4
Average age at menopause	48
Marital status	
Never married	1
Married	3
Widowed	1
Divorced/separated	6
Level of completed education	
No schooling-illiterate	2
Primary School	4
High School	5
Tertiary/university	0
Employment	
Employed	5
Home duties	6
Years in Australia	
1-10	0
11-20	9
21-30	2
>30	0

resettled in Australia in early 2000 after having lived in refugee camps in countries bordering their country of origin in order to escape famine, ongoing civil and political unrest.

Four themes emerged from the data.

3.1 | Menopause and midlife—a welcomed life phase

Menopause was a welcomed life phase and represented normal physiological changes. It was predominantly described as a release from the reproductive role and the inconveniences caused by monthly menstruation.

No, because it [menopause] is normal for us, you know, we used to be tired washing pads every months and you will be happy, yeah you can see your time is it. Yeah

TABLE 2 Individual participant characteristics (N = 11)

Pseudo nym	Menopause status	Year of migration	Interview with interpreter	Level of education	Paid employment
Mena	Postmenopausal	1994	No	Year 9	Yes-business owner
Yenu	Peri-menopausal	1997	No	Year 12	Yes-business owner
Salina	Postmenopausal	2002	No	Year 12	Yes-health care industry
Aamira	Postmenopausal	2005	Yes	No schooling-illiterate	No
Nafiza	Post menopausal	2004	Yes	No schooling-illiterate	No
Kazima	Peri-menopausal	2002	No	Year 12	No
Muhsina	Peri-menopausal	2003	No	Years 12	Yes-self employed
Duaa	Peri-menopausal	2004	No	Some Primary School-illiterate	No
Sabeen	Peri-menopausal	2003	No	Year 12	Yes – community sector
Hyiab	Peri-menopausal	2000	Yes	Year 7	No
Fofo	Peri-menopausal	2003	Yes	Primary School	No

[menopause] good thing for us. And you no more getting babies because you expect to get babies.

(Aamira)

We don't like period, it's very annoying.

(Duaa)

Midlife was described in a social context as a life phase where women gain greater social standing and are highly regarded for their wisdom and maturity within their community. This respect is heavily reliant on women's achievement as wife and mother as highlighted by Salina's reflection.

Respect comes from status and in Ethiopia status comes from family. You get married and have children these are all things, you gain status.

(Salina)

You become top in your family and even in your community. Especially in my age, I would be happy at home. I would be like ... everybody would come and ask me 'ah Sabeen we need to do this' and then I would give ideas. So everybody would go and do it and I would be respected all the time.

(Sabeen)

flushes, muscular-skeletal pains and tiredness. Most reported limited understanding about women's health and menopause specifically.

I don't know anything about menopause.

(Muhsina)

At first, I didn't know. I was feeling hot and sweating all the time. I thought I had an infection and wanted to see my doctor.

(Yena)

Some attributed their lack of knowledge about women's health to having had limited educational opportunities and having spent most of their lives in remote areas.

Most of us, we were born in the cattle care, in the village, far away from the city.

(Aamira)

... but you know especially women they don't think that much about women's health, especially the woman in the village. They don't care about the ... you know ... menopause or whatever. Maybe they can feel tired but they don't think ... this is like ... changing menopause or all this stuff. They just notice it and then that's it.

(Kazima)

3.2 | Limited education linked to knowledge about menopause and women's health

When asked about their personal menopause-related experience, all participants described the changes of their menstrual cycle and most said that they experienced some physical symptoms including hot

3.3 | Political and societal environment linked to health literacy

Information gathering can be from formal or informal sources. Health care providers and reputable websites are regarded as formal and

more trustworthy and family members, friends or the popular press are regarded as informal and less trustworthy sources of information.

Few participants had ever looked for or accessed menopause-related information. They reflected that seeking health information was uncommon in their country of origin. They explained that due to poverty, war and political unrest health services were very basic and the concepts of patient education unfamiliar.

South Sudan it's not like a first world ... there is a doctor, but you know ...

(Kazima)

You know we are in the war, we don't have um, go to hospital.

(Aamira)

In addition, women's health, including menopause, is rarely discussed in their communities and therefore they had not sought menopause-related information intentionally.

Huge difference [compared to Australian culture] in our culture. Menopause is secret, nobody talks about thing like that. We don't discuss it and we struggle with it.

(Salina)

The few participants who sought information about menopause accessed it mainly through informal sources such as close female friends, family members or occasionally from older women from their community.

My period sometime is you know, is coming every 2 weeks. And sometimes is very heavy and sometimes only one day. And when I tell her [older female community member] they said 'oh my baby your period you know is going to be stopped'.

(Mena)

Only few used the internet as a source of information. Salina reflected on her experience when seeking information about menopause symptoms, 'actually when I get hot flushes and periods got heavy, I googled it.'

Finally, participants who were unable to read in their native language as well as in English identified this as a barrier for being able to access menopause-related information.

I don't know how to read.

(Nafiza)

Oh the one thing I will tell you, I don't know how to read. And I don't know how ... to go and look about healthy things.

(Duaa)

3.4 | Perceptions and experiences of menopause-related health care

All participants had been resettled in Australia more than 10 years ago. Despite having arrived under the Refugee and Humanitarian Program,²⁷ having experienced abject poverty, war, lengthy periods in refugee camps, having had limited formal education, and having limited English language proficiency all women accessed primary health care. Many participants reported positive relationships with their general practitioners (GPs) describing their care as thorough and caring. They preferred GPs who spoke their first language because that helped them fully understand the information provided during their health consultation.

Yeah is good doctor. The reason we go to the um, Arabic doctors is because, is not because we don't like Australian doctors, it is because of the language. Because we want the language that we can understand. That is why we go to this Arabic doctor who can speak my, our language.

(Hyiab)

I also saw a lady doctor in Moonee Ponds and she (participant indicated that the doctors touched her arm) said 'we do this together'. This was lovely, very lovely [laughs]. When I need to have a very detailed conversation, I go to a doctor in Werribee. He is from Ethiopia, sometimes there are still words that are difficult to describe.

(Salina)

Participants with limited English proficiency who consulted English-speaking GPs were either accompanied by family members who acted as interpreters or offered a telephone interpreter service.

Some participants who saw their GPs for menopause-related care were disappointed by the lack of information provided and some felt misunderstood and that their concerns were dismissed.

The doctors, they don't listen. Still I feel sweats and I don't know how long [they will last]. Maybe they think I know, but he didn't ask. Doctors should tell, not everybody is internet person.

(Yena)

I feel nervous a bit because you know ... when you go to the doctor, it's just ... [dismissive gesture] ah that's ... take some Panadol and that's it. But they don't actually give an explanation.

(Kazima)

In response to a follow-up question about how health services could be improved most participants reflected that the GP needed to

be proactive and provide more health information and suggested that regular community talks about women's health would be beneficial.

4 | DISCUSSION

To our knowledge this is the first study investigating menopause-related health literacy among immigrant women born in the Horn of Africa nations. We found that this group of women welcomed menopause as a normal, positive life phase. They had limited knowledge about menopause and lacked the health literacy competencies necessary to be able to make well-informed menopause-related health decisions. While many perceived their health care providers in Australia as caring and competent, they wished that GPs would be more proactive in providing menopause-related health information and that community-based health education were available.

This study identified three barriers to accessing menopause-related health information.

Firstly, the influence of their culture on perceptions of menopause limited participants' understanding of the links between menopause and later life health. In Western societies, menopause is viewed as a marker of ageing and a time when health behaviour is linked to health in later years.⁴ Health care providers are encouraged to remind women of the importance of positive health behaviour to reduce the risk of developing chronic noncommunicable diseases later in life.²⁸ On the other hand, based on some anthropological observation, Flint²⁹ argues that in traditional cultures menopause is predominately perceived as a time of liberation when women gain greater social privileges and control. However, there is little contemporary evidence about the experiences of menopause among women in traditional cultures to support this assertion. Nevertheless, the women in this study viewed menopause as a normal, positive life phase associated with greater social position and they did not see the need to seek menopause-related health information and care. This may in part be because the health care system in their countries of origin focuses on curative rather than preventive care and as a result, there is no tradition in seeking health-related information.^{21–23} Consequently, participants' apparent unawareness of the increased risks of chronic noncommunicable diseases postmenopause leaves them vulnerable to missing out on menopause-related health information and the opportunity to adopt health promoting behaviours during and after menopause.

Secondly, barriers to health literacy were identified. Sorensen and colleagues⁵ refer to health literacy as the capacity to access, understand, evaluate and use health-related information. The ability to access health information is foundational and the stepping stone to the subsequent competencies. If this first competency cannot be completed successfully it follows that the remaining health literacy competencies cannot be achieved. In contemporary high-income settings the internet is a primary source of health information.³⁰ Since most online health information is text based, it is only accessible to people who are literate and able to use the internet. As demonstrated in this study migrants with limited education and low

literacy may be unfamiliar with the internet and are therefore unable to seek and use online information. This in turn means that they may miss out on information that would enable them to make positive menopause-related health decisions.

Thirdly, in the absence of the capacity to access menopause-related information participants relied on their GPs to provide this. Health literacy is assisted by a health care system that considers and acts upon factors influencing health literacy. Higginbottom et al³¹ investigated health care experiences among immigrant women in Canada and found that communication difficulties and lack of health information in relevant community languages were two of the most commonly cited barriers to health care. Participants in this study had seen GPs and many had overcome language challenges by consulting GPs who conversed in their native language. However, the lack of proactive engagement by their GPs in providing menopause-related information was a barrier to receiving menopause-related health care and the opportunity to act on health promoting information.

Study strengths include that participants were diverse in terms of menopausal status, age, duration of residence in Australia, marital status and educational status. Furthermore, volunteers with insufficient English language proficiency were able to participate with the assistance of a qualified interpreter, all of whom were female and of similar cultural background to participants.

Nevertheless, we acknowledge some limitations. Cross-cultural and cross-lingual research poses unique challenges.^{32–34} Some interviews required interpretation, which always carries the risk that subtleties and potentially relevant information may be lost.³⁴ There were no participants who had been born in Somalia. It is possible that perceptions and experiences of women from Somalia may not be identical to those of participants from other Horn of Africa nations. Overall, however, we believe that the strengths of the study outweigh its limitations and that the findings help us understand the barriers and enablers of menopause-related health literacy among women from these nations who have migrated to high-income countries.

5 | CONCLUSION

In summary, our study suggests that menopause-related experiences and health literacy among immigrant women from the Horn of Africa nations are linked to both previous experiences in their country of origin and current experiences in the country of immigration. Understanding the factors that influence health literacy among immigrant women from this region allows us to think creatively about ways to improve their access to information about health behaviours that reduce the risk of noncommunicable diseases postmenopause.

6 | IMPLICATIONS AND FUTURE RESEARCH

Women who have migrated from the Horn of Africa nations perceive the menopausal transition as a normal, positive life phase and are

unlikely to seek menopause-related information. It might be beneficial if primary health care providers adopt a proactive approach to assessing menopausal status and discussing menopause-related health in their encounters with immigrant women during their midlife. Any primary health care consultation offers an opportunity to assess menopause-related health knowledge, recommend relevant health screening and provide health promoting information.

Increased awareness among health care providers and health educators about the cultural influences on the experiences and perceptions of menopause and the personal, situational, societal and environmental determinants of health literacy may help overcome the barriers to accessing menopause-related health information identified in this study. Targeted professional education programs codesigned by community stakeholders may increase their ability to engage vulnerable communities in health promotion programs and activities.

Health information is largely internet based and consequently inaccessible for migrant women with limited literacy and internet skills. Community-based health information programs delivered by bilingual health educators in community settings such as community health centres, existing social or community groups allows the use of diverse information dissemination strategies and may provide an alternative in promoting menopause-related health literacy.

A possible area of future research is to investigate how people with low literacy access health information, and what approaches they use to overcome access barriers. This would inform strategies to reaching people with low literacy with preventive health messages. Furthermore, primary health care providers are in ideal position to complete opportunistic health assessments and provide recommendations to promote optimal health in older age. Research investigating potential knowledge gaps, learning needs and barriers to providing menopause-related care to immigrant women is warranted to inform health care practice and policies.

ACKNOWLEDGEMENTS

We thank the women who participated in this research project for their generous contribution. Karin Stanzel is supported by the Australian Government Research Training Program Scholarship. Jane Fisher is supported by the Finkel Professorial Fellowship, which is funded by Finkel Foundation.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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How to cite this article: Stanzel KA, Hammarberg K, Fisher J. 'Not everybody is an internet person': Barriers for menopause-related health literacy among immigrant women from the Horn of Africa nations. *Health Promot J Austral*. 2020;00:1–8. <https://doi.org/10.1002/hpja.326>

Chapter 8: Investigation of primary health care providers' experiences of providing menopause-related health care to migrant women.

Chapter 8 comprises an original paper entitled "Primary healthcare providers' attitudes and beliefs about the menopause-related care needs of women who have migrated from low- and middle-income countries".

This chapter represents Component 3 of the research project and reports the findings from the anonymous online survey of primary health care practitioners. It addresses Objective 5 which was to establish health care providers experiences of providing care to migrant women in midlife.

The findings from the systematic review identified that migrant women reported insufficient consultation time, unfriendly mannerism by their health professionals, lack of information and being included as an active decision-making partner in their health care as the most common reason for unsatisfactory health care experience. The interviewed migrant women in this study reported that they trusted their health care provider to be a reliable source of information. However, they felt 'rushed' during their consultation and believed that health care practitioners should proactively provide health information relevant to menopause and midlife health. Together, the results from the systematic review and the semi-structured interviews with migrant women informed the development of the online survey for health care providers.

The survey was launched in October 2018 and it was anticipated to be closed on the 3 February 2019. However, the recruitment of study participants was more difficult than anticipated and therefore, the survey was open until 15 April 2019. A range of strategies were employed to disseminate information about the survey to primary health care providers including through professional organisations, primary health networks, and primary health organisations. The survey was completed by 139 primary health care providers.

The survey findings indicate that primary health care providers perceive their own knowledge and competences about migrant women's menopause-related health care needs as inadequate. They cited time constraints during routine consultations and lack of resources for women from culturally and linguistically diverse background as barriers for providing comprehensive menopause-related care to migrant women. A specific Medicare item number related to menopause care, the availability of resources in community languages to direct migrant women to, and structural support were endorsed to address these barriers.

The paper was accepted for publication by the Australian Journal of Primary Health on 5 September 2019 and published online 18 November 2019.

8.1 Stanzel, Karin A., Hammarberg, Karin & Fisher, Jane (2019) Primary healthcare providers' attitudes and beliefs about the menopause-related care needs of women who have migrated from low- and middle-income countries to Australia. Australian Journal of Primary Health, vol 26 (1), pp. 88-94 doi.org/10.1071/PY19132

Primary healthcare providers' attitudes and beliefs about the menopause-related care needs of women who have migrated from low- and middle-income countries to Australia

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Abstract. Health behaviour during midlife is linked to health outcomes in older age. Primary healthcare providers (PHCPs) are ideally placed to provide health-promoting information opportunistically to women in midlife. The aim of this study was to explore PHCPs views about the menopause-related care needs of migrant women from low- and middle-income countries and what they perceive as barriers and enablers for providing this. Of the 139 PHCPs who responded to an anonymous online survey, less than one-third (29.9%) routinely offered menopause-related information during consultations with migrant women. Most agreed that short appointments times (70.8%), lack of culturally and linguistically appropriate menopause information (82.5%) and lack of confidence in providing menopause-related care (32.5%) are barriers for providing comprehensive menopause-related care to migrant women. To overcome these, a menopause-specific Medicare item number and a one-stop website with health information in community languages were suggested. These findings suggest that menopause-related care is not routinely offered by PHCPs to migrant women from low- and middle-income countries and that their capacity to do this may be improved with adequate educational and structural support.

Additional keywords: health education, health literacy, health promotion, primary care, women's health.

Received 28 June 2019, accepted 5 September 2019, published online 18 November 2019

Introduction

Australia, first settled by Indigenous peoples tens of thousands of years ago, is now a multicultural society. In 2016, the Australian Population and Housing Census reported that one in four (26%) people living in Australia were born overseas (Australian Bureau of Statistics 2016).

The World Bank classifies countries into low, lower-middle, upper-middle and high-income countries based on their Gross National Income per capita (World Bank 2019). Most people who migrate move from lower- to higher-income countries (United Nations Migration Agency 2018). Although migration has benefits for most migrants and their families, establishing a life in a new country is associated with challenges (Meadows *et al.* 2001). One challenge, particularly for people who migrate from a low- or middle-income country to a high-income country, is learning how to understand and navigate local systems, including the healthcare system (Mengesha *et al.* 2017). Investigations of migrants' healthcare experiences show that difficulties accessing and navigating the healthcare system, communication difficulties, lack of culturally and linguistically appropriate health information, and limited culturally sensitive and appropriate care are common barriers to health care (Higginbottom *et al.* 2015; Mengesha *et al.* 2016).

Explorations of healthcare practitioners' experiences of providing health care to migrants report similar difficulties. They suggest that patients' limited host country language proficiency, differences in cultural practices, differences of healthcare systems and lack of culturally and linguistically relevant resources are barriers for migrants accessing, understanding and using health care (Mengesha *et al.* 2017; Bellamy *et al.* 2019). Healthcare providers (HCPs) also report limited knowledge and confidence in providing culturally informed care to migrant women (Mengesha *et al.* 2018). Suphanchaimat *et al.* (2015) conducted a systematic review of 37 studies investigating perceptions and experiences of healthcare practitioners providing care for migrants. They found that the barriers to providing optimal care for migrants were heavy workloads and insufficient specialists such as psychologists in mental health care (Straßmayr *et al.* 2012).

Most studies to date on migrants and health care have focussed on the healthcare needs of newly arrived migrants and refugees (Lindenmeyer *et al.* 2016; Robertshaw *et al.* 2017); their experiences of maternity care (Higginbottom *et al.* 2015); and perceptions and experiences with mental health services (Wohler and Dantas 2017). There are fewer investigations related to health behaviour that may affect health outcomes

What is known about the topic?

- Although poor health behaviour in midlife is associated with poorer health in later life, there is limited proactive provision of menopause-related information in primary health care.

What does this paper add?

- Provision of menopause-related information is not routinely offered by primary healthcare providers, but with adequate educational and structural support most are willing to provide menopause-related health education to migrant women.

in later life among migrants (Kristiansen *et al.* 2016). The systematic review by Kristiansen *et al.* (2016) of 33 studies exploring aging and health among migrants in Europe found that, although factors that promote healthy aging are largely similar across populations, there are migrant-specific risk factors for poor health in later life, including language barriers, inadequate health literacy and cultural beliefs influencing migrants' uptake of health-promoting behaviour and health care.

Health behaviours during and after the menopausal transition influence women's health in later life (Guthrie *et al.* 2004). Primary health consultations with women in midlife provide opportunities to assess and promote health behaviours actively and increase the likelihood of healthy aging.

In a systematic review of 19 studies investigating migrant women's experiences of menopause-related health care, we found that dissatisfaction with care was common. Reasons for this included that HCPs do not proactively offer menopause-related information, time constraints during consultations and unfriendly manners of HCPs. In addition, studies that assessed women's self-management of menopausal symptoms found that cultural practices and the use of traditional remedies, some harmful, were common (Stanzel *et al.* 2018).

Health literacy – the ability to make well-informed decisions about health and health care – has been linked to health outcomes (Sørensen *et al.* 2012). Sørensen *et al.* (2012) propose the Integrated Model of Health Literacy, which describes the determinants of health literacy and the pathways linking health literacy to health outcomes. Little is known about menopausal and postmenopausal healthcare needs and health behaviours among migrant women from low- and middle-income countries and how this relates to health literacy.

In two qualitative studies (K. A. Stanzel, K. Hammarberg, J. Fisher (2019) unpubl. data; K. A. Stanzel, K. Hammarberg, J. Fisher (2019) unpubl. data), we explored menopause-related health literacy and healthcare needs among women who had migrated to Australia from Vietnam and Horn of Africa nations. The study identified several themes. One of the themes was that information about menopause was obtained from family and friends, and the use of traditional remedies was the preferred method for managing menopause-related symptoms. Another theme was that there was limited menopause-related information

available in languages other than English, which made it difficult for women to access, understand, appraise and apply menopause-related health information. Participants identified their GP as a reliable source of information; however, short consultation times prevented women from asking menopause-related questions. In addition, GPs higher social standing in their culture of origin prevented women from initiating discussion about menopause and health problems related to aging (K. A. Stanzel, K. Hammarberg, J. Fisher (2019) unpubl. data; K. A. Stanzel, K. Hammarberg, J. Fisher (2019) unpubl. data).

The aim of this study was to explore primary healthcare providers' (PHCPs) perceptions of the menopause-related care needs of migrant women and their views about barriers and facilitators for providing menopause-related care to migrant women in midlife.

Methods

The study was approved by the Monash University Human Research Ethics Committee (MUHREC 15095).

Design

A descriptive, cross-sectional, anonymously completed online survey assessed PHCPs' beliefs about the menopause-related care needs of women who have migrated from low- and middle-income countries to Australia. It also assessed their views about barriers and facilitators for providing care during and after the menopausal transition to this population group. In respectful recognition of participants' time, those who completed the survey could enter a draw for one of three A\$100 gift cards.

Participants and recruitment

HCPs including general practitioners (GPs) and registered nurses (RNs) were eligible to participate if they were practicing in primary care and had experience of providing health care to perimenopausal and postmenopausal women who had migrated from a low- or middle-income country.

Representatives of 15 national- and state-based health professional organisations, 27 primary health networks and five primary health organisations were contacted and asked to disseminate information about the survey to their members.

Material

A study-specific survey was developed, informed by the researchers' experience in primary health care, the findings of their systematic review and studies of migrant women's menopause-related health literacy and healthcare needs, and the published literature, to address the research questions. The survey had four sections.

The first section had 15 statements about how migrant women manage menopause, their attitudes towards menopause and their menopause-related health literacy. Respondents were asked to choose the response alternative that reflected their belief about the statements (Don't know, Not at all, A little bit, Quite a lot or A lot).

The second section examined how often HCPs delivered menopause-related care to migrant women and under what circumstances they offered menopause-related health information.

Table 1. Demographic characteristics of respondentsData are presented as *n* (%)

Characteristics	General Practitioner (GP) <i>n</i> = 48	Registered Nurse (RN) <i>n</i> = 69	Total <i>n</i> = 117
Gender ^A			
Female	31 (64.5)	68 (100)	99 (85.3)
Male	17 (35.4)		17 (14.7)
Age (years)			
<45	23 (47.9)	20 (29.0)	43 (36.8)
≥45	25 (52.1)	49 (71.0)	74 (63.2)
Spoken languages			
English only	22 (45.8)	46 (66.7)	68 (58.1)
Language other than English ^B	26 (54.2)	23 (33.3)	49 (41.9)
Country of qualification			
Australia	34 (70.8)	51 (73.9)	85 (72.6)
Outside of Australia	14 (29.2)	18 (26.1)	32 (27.4)
Years of experience in Australia ^A			
<10	16 (33.3)	20 (29.4)	36 (31.0)
≥10	32 (66.7)	48 (70.6)	80 (69.0)
Geographic location ^C			
Metropolitan	37 (77.1)	43 (64.2)	80 (69.6)
Rural/remote	11 (22.9)	24 (35.8)	35 (30.4)

^AItems not completed by one respondent.^BTwenty-six different languages were recorded. They are listed in order of frequency: Mandarin, Cantonese, Hindi, French, Malayalam, Vietnamese, Malay, Italian, German, Tamil, Punjabi, Yoruba, Afrikaans, Spanish, Visayan, Indonesian, Greek, Russian, Ukrainian, Nepali, Dutch, Thai, Filipino, Farsi, Turkish and Dari.^CItems not completed by two respondents.

Opinions about barriers and facilitators to discuss menopause-related health with migrant women were canvassed in the third section. Five potential barriers and five enablers were listed, and respondents were asked to state their agreement with each (Not sure, Disagree, Strongly disagree, Agree or Strongly agree).

The last section ascertained respondents' demographic characteristics, including gender, age, professional qualifications, languages spoken, country of qualification, year of registration in Australia, years of practice, geographic workplace setting, type of organisation and average number of hours of practice per week.

Before implementation, the survey was pilot tested by 10 HCPs and researchers and amended according to their feedback.

Procedure

Detailed information about the purpose, eligibility and what participation involved could be accessed via a link. Those who were willing and eligible to participate could proceed to complete the survey, which was hosted by Qualtrics (Provo, UT, USA).

Data management and statistical analysis

The survey was open between October 2018 and April 2019. Data were imported from Qualtrics to SPSS version 25.0 (IBM Corp, Armonk, NY, USA) and analysed using descriptive statistics. The following variables were dichotomised: age groups (<45 and ≥45 years), professional group (GPs v. RNs), years practicing in Australia (<10 v. ≥10 years) and geographic location of work setting (metropolitan v. rural/remote). HCPs' responses to the statements in the first section were grouped as 'Don't know/Not at all/A little bit' and 'Quite a lot/A lot'.

Responses to statements in the third section were grouped as 'Not sure/Disagree/Strongly disagree' and 'Agree/Strongly agree'. These responses are presented as proportion. Age groups, professional groups, <10 and ≥10 years practicing in Australia and work setting were compared with statements relating to views about migrant women's experiences and management of menopause and their menopause-related health literacy skills; and opinions about barriers and enablers providing menopause-related care using Pearson's Chi-Square test, Fisher's exact test. *P*-values <0.05 were considered significant.

Results

In total, 245 individuals clicked on the link to the survey. Of these, 106 stopped after the participant information, which stated that only HCPs who provided menopause care to women who had migrated from low- and middle-income countries were eligible to participate. Of the remaining 139 respondents, 19 completed sections one and two only, three completed all study-related questions but not the demographic questions and 117 completed the entire survey including the demographic questions. The demographic characteristics of respondents are shown in Table 1.

Almost two-thirds of the respondents were RNs who were employed as Nurse Practitioners, Community Health Nurses, Practice Nurses, Refugee Health Nurses, Sexual and Reproductive Health Nurses and Women's Health Nurses. Two-thirds of all participants were >45 years, had trained in Australia and had more than 10 years practice experience in Australia. The sample was drawn from all states and territories. Almost half of respondents were practising in Victoria and the remainder representing all other states and territories.

Table 2. Proportions of respondents' who stated 'quite a lot/a lot' as reflecting their beliefs about statements relating to migrant women and menopauseData are presented as *n* (%)

Statement	Responded 'Quite a lot' or 'A lot' (<i>n</i> = 139)
To what extent do peri-menopausal and postmenopausal migrant women ...	
... understand why menopause occurs	52 (37.4)
... recognise menopause-related symptoms	52 (37.4)
... worry about menopause	51 (36.7)
... ask their healthcare provider questions about menopause	27 (19.4)
... are bothered by menopause-related symptoms (e.g. vasomotor symptoms)	65 (46.8)
... use traditional remedies from their country of origin to manage their menopause	73 (52.5)
... are interested in 'western' medical menopause management options	40 (28.8)
... talk to their friends about menopause	51 (36.6)
Do you believe that menopausal migrant women ...	
... are interested in menopause-related information	96 (69.1)
... are able to access menopause-related information	22 (15.8)
... understand menopause-related information	37 (26.8)
... are able to identify whether menopause-related information is trustworthy in terms of its content	15 (10.8)
... are able to identify whether menopause-related information is trustworthy in terms of its source	16 (11.5)
... are happy to follow 'western' guidelines on menopause management	56 (40.3)
... prefer to use traditional remedies from their country of origin	78 (56.1)

Table 3. Proportions of respondents who stated 'agree' or 'strongly agree' about barriers and enablers for providing menopause-related care to migrant womenData are presented as *n* (%)

Possible barriers and enablers	Agreed or strongly agreed (<i>n</i> = 120)
In your view, what are the barriers for discussing peri-menopausal and postmenopausal health with migrant women?	
Routine appointment length is insufficient	85 (70.8)
I am not confident working with interpreters	58 (48.4)
Lack of confidence working with women from diverse cultural backgrounds	39 (32.5)
Lack of culturally and linguistically appropriate menopause-related health resources	99 (82.5)
It is too time consuming	51 (42.5)
To provide comprehensive menopause health consultations, there needs to be ...	
... a Medicare item number reflecting the time involved	92 (76.7)
... a practice nurse with qualification in women's health	95 (79.2)
... women's health services to refer migrant women to	105 (87.5)
... a one-stop website that provides health information fact sheets including links to health information websites in relevant community languages	100 (83.3)
... accessible interpreter services	115 (95.8)

Responses to the questions that explored HCPs' beliefs about how migrant women manage menopause, their attitudes towards menopause and their ability to access, understand and use menopause-related information are shown in [Table 2](#).

Over half of respondents believed that migrant women had poor understanding of why menopause occurs and of menopause-related symptoms. Most respondents thought that, although migrant women want menopause-related health information, they are unlikely to ask their HCPs questions about menopause. Approximately half of respondents stated that migrant women use and prefer to use traditional remedies from their country of origin to manage menopause-related symptoms rather than 'western' medical menopause management. Only approximately one-third believed that migrant women talk to their friends about menopause. Most respondents thought that migrant women have limited capacity to access, understand and

judge the trustworthiness of the content and the source of menopause-related health information.

The majority of respondents saw migrant women for menopause-related care 'sometimes' (71%) or 'often' (8%). The remaining 21% provided menopause-related care 'rarely'. Most respondents stated that they address menopause health either when women ask questions about menopause (16.1%) or if they mention menopause-related problems during the consultation (54%). Less than one-third (29.9%) of respondents reported that they routinely provide menopause-related information during consultations with migrant women in midlife.

The proportions of respondents who stated that they agreed or strongly agreed with statements about potential barriers and enablers for providing menopause-related care to migrant women are shown in [Table 3](#).

The two most endorsed barriers for providing comprehensive menopause-related care to migrant women were that routine appointment length time is too short and lack of culturally and linguistically relevant resources about menopausal health. More than three-quarters of respondents agreed that accessible interpreter services, a one-stop website that provides fact sheets and links to health information websites in relevant community languages, and an option to refer migrant women to a specialised women's health service or a practice nurse with qualification in women's health enable them to provide comprehensive menopause care to migrant women.

There were no statistically significant differences in the responses between GPs and nurses, between HCPs trained in Australia and those trained overseas or between those who practised in metropolitan and those who practised in rural or remote settings. However, younger (<45 years) respondents were more likely to be aware that migrant women talk to their friends about menopause (51.2% v. 25.7%, $P=0.023$), are interested in menopause-related information (88.4% v. 60.8%, $P=0.007$) and prefer to use traditional remedies from their country of origin to manage menopause-related symptoms (67.4% v. 47.3%, $P=0.025$) than older (≥ 45 years) respondents.

Discussion

To the best of our knowledge, this is the first survey of PHCPs in Australia who care for women in midlife who have migrated from low- and middle-income countries. It provides evidence about their perceptions of how migrant women experience and manage menopause and views about barriers and enablers for providing comprehensive menopause-related care. It made findings about how PHCPs can be supported to improve their capacity to provide culturally responsive menopause care for this vulnerable group.

Strengths of this study include that the survey was distributed widely to enable participation of all Australian PHCPs and it was short and convenient. We acknowledge the following limitations. Although the survey was widely distributed, most respondents worked in Victoria. This may, in part, be because they are more likely than practitioners in other states to encounter migrant women in their practice because nearly one-third of the people in Victoria were born overseas (Australian Government 2016). There is no way of knowing how many PHCPs provide care to migrant women; hence, we are unable to assess how well the respondents represent the whole population of PHCPs.

The findings reveal both similarities and differences between how migrant women experience and manage menopause, and how they access information about menopause, and PHCPs' beliefs about how migrant women manage menopause, their attitudes towards menopause and their ability to access, understand, judge and use menopause-related information. There was broad understanding among respondents that migrant women have limited knowledge about menopause and have difficulty accessing information about it. Most PHCPs also acknowledged that migrant women are unlikely to ask their HCP questions about menopause. These views appear to reflect those of the migrant women in our studies who reported that they lack knowledge about menopause, rely on informal sources of

information about menopause, and that cultural norms from their country of origin prevent them from asking health professionals questions about menopause (K. A. Stanzel, K. Hammarberg, J. Fisher (2019) unpubl. data; K. A. Stanzel, K. Hammarberg, J. Fisher (2019) unpubl. data).

Considering that most respondents believed that migrant women are unlikely to ask questions about menopause, it may have been expected that they would proactively and opportunistically discuss menopause-related health with their patients. However, less than one-third of practitioners reported that they routinely provide menopause-related information during consultations with migrant women in midlife. This may be a lost opportunity, as evidence indicates that migrant women view GPs as a trusted source of information and want them to initiate discussions about menopause health (K. A. Stanzel, K. Hammarberg, J. Fisher (2019) unpubl. data; K. A. Stanzel, K. Hammarberg, J. Fisher (2019) unpubl. data).

While migrant women report seeking information about menopause from family and friends and using traditional remedies for menopause-related symptoms (Stanzel *et al.* 2018, K. A. Stanzel, K. Hammarberg, J. Fisher (2019) unpubl. data; K. A. Stanzel, K. Hammarberg, J. Fisher (2019) unpubl. data), many of the PHCPs in this study were unaware of this. Advice from informal sources such as family and friends may not be evidence-based and some traditional remedies may be harmful. Komesaroff *et al.* (2002). Komesaroff *et al.* (2002) and Liu and Eden (2008) found, for example, that drinking a small amount of petrol daily was a common practice among Greek migrant women living in Australia at midlife. Proactively asking migrant women about what they know about menopause and how they manage menopause-related symptoms may help identify women at risk of poor advice and potentially harmful self-management strategies.

Respondents' views about the main barriers for providing comprehensive care to migrant women in midlife concurred with what migrant women identify as the main barriers for optimal care; namely short consultation times and lack of culturally and linguistically appropriate menopause-related health resources (K. A. Stanzel, K. Hammarberg, J. Fisher (2019) unpubl. data; K. A. Stanzel, K. Hammarberg, J. Fisher (2019) unpubl. data). Primary health care includes health promotion, prevention, early intervention, treatment of acute conditions and management of chronic conditions. It is funded through Medicare, which is Australia's universal health insurance scheme. Medicare provides benefits and rebates for health professional services using a unique item number system. Item numbers are based on the content of the service and accordingly allocated a rebate (Australian Government 2016). Most respondents agreed that routine consultation times do not account for the time it takes to provide menopause-related care and health promotion information and suggested that a Medicare item number that reflects the time involved would be helpful. Furthermore, access to a practice nurse with women's health expertise and a government-sponsored one-stop website that provides health information in relevant community languages would be helpful. To ensure easy access, information ought to be accessible in text- and video-based format. For consumers with limited English-language proficiency, national flags as access buttons on the home page would be helpful accessing health information in the required community language. Furthermore,

accessible interpreter services to improve communication between PHCPs and health consumers were endorsed as a potential enabler by almost all respondents. Although Australia is a multicultural society where interpreter services may be presumed to be readily available in healthcare settings, this suggests that practitioners, at least sometimes, are unable to access an interpreter when they need one.

The unique challenges of providing sexual and reproductive health care to migrant women has been recognised by others. In a study of health care professionals' preparedness for providing sexual and reproductive health care to refugee and migrant women, lack of training and knowledge were identified as barriers for addressing these aspects of health (Mengesha et al. 2018). In our study, approximately one-third of respondents stated that lack of confidence working with women from diverse cultural backgrounds was a barrier. Taken together, these findings suggest that cultural competence training, with specific attention to migrant and refugee populations, might increase health care professionals' knowledge and confidence to proactively discuss potentially sensitive health matters, including menopause. Cultural competence training is now part of HCPs' curricula (Royal College of General Practitioners 2016) in Australia. This may explain why respondents <45 years were more likely than older respondents to identify that migrant women seek advice about menopause from family and friends, are interested in menopause-related information and use traditional remedies from their country of origin to manage menopause-related symptoms.

Maintaining good health into old age is an important social and economic challenge for Australia and other countries where life expectancy is increasing (Australian Institute of Health and Welfare 2018). PHCPs are ideally placed to opportunistically assess health behaviours, recommend relevant screening programs and provide health information to their patients that promotes healthy aging. The barriers and enablers for providing comprehensive menopause-related care to migrant women identified in this study can be used to inform health policy and practice relating to migrant women in midlife.

Conflicts of interest

The authors declare no conflicts of interest.

Acknowledgements

We would like to thank the healthcare providers who participated in this research project for their generous contribution. Without the kind support in the distribution of the survey information, this study would not have been possible. We would like to thank the staff from the many health professional associations and organisations, the primary health networks and health organisations for their support in the distribution of the survey information. Karin Stanzel is supported by the Australian Government Research Training Program Scholarship. Jane Fisher is supported by the Finkel Professorial Fellowship, which is funded by the Finkel Foundation. The A\$100 gift cards were internally funded.

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Chapter 9: Discussion and implications

This research used an Exploratory Sequential Mixed Methods Research Design to address a significant knowledge gap about health literacy, and the health care experiences and needs of women in midlife who have migrated from low and middle income culturally diverse nations to Australia.

It established through a systematic review of the literature that migrant women's experiences of the menopausal transition differ from those of women in the host country, and that there are significant knowledge gaps about migrant women's menopause-related self-management strategies, their capacity to access, understand, evaluate and use menopause-related information and their experiences and satisfaction with the health care services in the host country.

The findings of the systematic review informed the development of the interview guide used in semi-structured interviews with women who had migrated to Australia from Horn of Africa nations or Vietnam. These interviews revealed that sociocultural, environmental, and personal factors influence perceptions and experiences of menopause, menopause-related self-care and health behaviour, health literacy capacity and health care service experiences and utilisation.

The findings from the systematic review and the semi-structured interviews provided important information for the development of a survey for primary health care providers which included questions about their experiences of providing care to migrant women during midlife. The results of the survey indicated that limited cultural awareness and structural barriers lessened primary health care providers' ability to provide comprehensive culturally competent menopause-related care to women from culturally and linguistically diverse backgrounds.

9.1 Strengths

This research has a number of strengths. It used a mixed methods research design which is noted for adding value by increasing validity in research findings through integrating

components, informing the collection of a second data source, and offering a deeper and more thorough understanding of the phenomenon under investigation than studies using one research method only (DeCuir-Gunby & Schutz, 2017).

The study used semi-structured interviews to gain a deeper understanding of migrant women's menopause-related health literacy skills and how they influence their health information and health care seeking behaviours. These allowed participants to reflect on and express their beliefs about menopause and midlife in open unstructured responses, and therefore it provided in-depth information how their culture of origin has and continues to influence health beliefs and behaviours. The use of qualitative research to investigate migrant women's experiences of menopause was in response to a call by Pleasant et al. (2011). They noted that health literacy has mainly been explored using quantitative research methods, and argued that in order to further advance knowledge about health literacy, qualitative research was needed to explore factors that influence people's health information seeking behaviour and how they access, understand, evaluate and use health information.

An additional strength of this research is that recruitment of participants and data collection took place in community settings as recommended by Aldoory (2017). She identified the lack of community-based health literacy research and argues that better understanding of health literacy at community level is needed to address adverse health behaviours, prevent chronic non-communicable conditions to reduce the number of people with poor health.

Migrant women are underrepresented in research. This is one of the first studies, to investigate community-dwelling migrant women's menopausal experiences, menopause-related health literacy and health care needs and how these are linked (Chapters 6 and 7). While most studies exclude people who do not speak the dominant language, participation in this study was not limited to women who were able to converse in English. Women whose English language proficiency was limited, could participate with the assistance of a project-provided bilingual researcher or an accredited interpreter, all of whom were women and of similar cultural background to participants. Study participants were from two

different cultural backgrounds and diverse in terms of age, menopausal status, marital status, educational status and length of time living in Australia.

The survey component (Chapter 8) was one of the first to explore primary health care providers' knowledge, perceptions and practice relating to the care of migrant women from low- and middle-income countries in midlife. Strengths of this component include that the survey was distributed nation-wide using multiple strategies to ensure a broad reach to capture as many potential participants as possible. The survey was completed by health care practitioners from diverse professional backgrounds practicing in different geographical locations including rural and remote settings.

9.2 Limitations

Nevertheless, I acknowledge that this research also has limitations. Cross-cultural and cross-lingual research presents unique challenges in ensuring that the meaning of participants' contribution is ascertained accurately (Chapters 6 and 7). More than half of the interviews required the presence of an interpreter. This carries the risk that subtleties and potentially relevant information are lost (Jones & Boyle, 2011). To address this risk excerpts of interviews that had been conducted with the assistance of a bilingual researcher, were checked for accuracy by a second bilingual researcher. Interviews carried out with the assistance of a National Accreditation Authority for Translators and Interpreters (NAATI) accredited interpreter were not cross-checked. NAATI is responsible for setting, maintaining and promoting high professional standards. NAATI credentialed interpreters are recognised to adhere to these standards and to provide quality services.

The study component that explored experiences of migrant women from Horn of Africa nations (Chapter 7) did not include participants who had been born in Somalia and it is possible that Somali-born migrant women may have different perceptions and experiences of the menopausal transition to women who were born in Eritrea, Ethiopia, South Sudan and Sudan.

Furthermore, although the survey for health care providers who offer care to women who have migrated from low- and middle-income countries (Chapter 8) was distributed across

Australia, 49% of respondents worked in Victoria. Nearly one third of people in Victoria are born overseas and this may explain why health care practitioners in Victoria are more likely to encounter migrant women in their practice than practitioners in other states (Australian Bureau of Statistics, 2016c). There is no way of knowing how many primary health care practitioners care for migrant women from low- and middle-income countries in their practice; hence, this research is unable to assess how well the respondents represent the whole population of primary health care providers. It is also not possible to know how many health professionals were reached by the invitation to complete the survey which means that a response rate cannot be calculated.

Throughout this thesis I have used the term 'symptom' when referring to physical and psychological manifestations of menopause. I acknowledge this is debatable as the term 'symptom' demonstrates the conceptual link of menopause as a medical construct. However, for ease of communication I have also used this term and acknowledge it as a limitation.

9.3 Elaboration of the Integrated Model of Health Literacy

Sorensen and colleagues' (Sorensen et al., 2012) Integrated Model of Health Literacy identifies and describes antecedents as factors that influence the ability to access, understand, evaluate and use health-related information and consequences as the likely outcomes of inadequate health literacy. Antecedents are named in Sorensen and colleagues' model but further explanations are not provided.

9.3.1 Culture as a determinant of adequate health literacy

The Integrated Model of Health Literacy identifies culture as an antecedent to health literacy but its meaning has not been further explained or elaborated on. Culture refers to the environment through which views, beliefs, values and practices are developed. Culture influences how people perceive their health and health concerns, when and from whom they seek health care, and how they react to recommendations for lifestyle modifications, health care interventions, and adherence to medical treatment (Andrulis & Brach, 2007; Bottomley & de Lepervanche, 1990).

In migration-related research, the influence of culture is often measured by assessing the level of acculturation. The notion of acculturation refers to a dynamic process by which an individual socialised in one culture adopts the traits of another culture (E. O. Im & Yang, 2006). The most recent acculturation theory extends the bi-dimensional model to a multi-dimensional model. The bi-dimensional model proposes four forms of acculturation. Integration which occurs when the individual has a positive relationship with the host culture and the culture of origin; assimilation which refers to rejecting the culture of origin and fully adopting the host culture; segregation which involves the process of rejecting the host culture and maintaining strong links to the culture of origin; and marginalisation which occurs when the individual has no relationship to either culture (E. O. Im & Yang, 2006; S.-K. Lee, Sobal, & Frongillo, 2003). The multi-dimensional model as proposed by Keefe & Padilla (Keefe & Padilla, 1987) expands the bi-dimensional model by suggesting that the four forms of acculturation can occur in different areas of an individual's daily life and are not mutually exclusive.

Assessment of acculturation is usually undertaken using psychometric scales that use fixed response items to measure indicators such as language spoken at home, host language proficiency, length of time living in the host country, as well as food, religious and media preferences (Boyas, 2013; Mantwill & Schulz, 2017). It measures how much migrants have adopted host country's cultural norms. Abraido-Lanza, Armbrister, Florez, and Aguirre (2006) though argue that these indicators are flawed and do not elucidate health beliefs and practices which are likely to influence health behaviour.

The difficulty in defining and measuring culture may be one reason why culture as an antecedent of health literacy has rarely been explored in health literacy-related research among migrants. In a systematic review of 21 qualitative and quantitative studies examining health literacy among migrant populations in the European Union, Ward and colleagues (Ward et al., 2019) found that most studies examined interventions to improve health literacy, measured individuals' health literacy capacity, and assessed barriers and facilitators for accessing health care and competent communication. None of the studies explored how migrants' culturally informed beliefs and practices influenced their health information seeking and health behaviour.

My research explored experiences and beliefs about menopause and midlife and how these influence the capacity to make well informed decision related to health behaviour and care. In order to understand how culture influences health literacy, the use of semi-structured interviews allowed participants to reflect on how their culture of origin influenced their conceptualisation of menopause and midlife. The findings suggest that culture of origin influences menopause-related health beliefs and health literacy among migrant women from low- and middle-income countries in a number of ways.

First, migrant women born in Horn of Africa nations and Vietnam view menopause as a normal and natural life phase and not a condition for which health care or health information might be sought. As a result, they rarely saw the need to review their health behaviour in midlife or obtain menopause-related information. The concept of changing health behaviour in midlife to promote optimal health in later life was largely unfamiliar to study participants (Stanzel, Hammarberg, & Fisher, 2020a, 2020b).

Second, although most study participants had been living in Australia for more than 10 years, they followed menopause-related self-care strategies and the health information seeking behaviour which were common in their countries of origin. Those women who implemented menopause-related self-care strategies mainly used herbal remedies from their country of origin and women who accessed menopause-related health care, did not appear to act on the information they had obtained. For example, prescriptions for medication for menopause-related symptoms were not used because of the belief that menopause was a normal life transition and medication was not necessary.

Third, study participants who had sought information about menopause followed culturally determined behaviour and predominantly accessed it through female family members and friends. However, family members or peers from the same country of birth are also shaped by their culture of origin and their advice may not be evidence-based and may have unintended harmful consequences. Women who rely on information from family and friends are likely to miss opportunities to receive evidence-based information from health professionals needed to make informed decisions about their health. Bennett-Kimbrough

(2007) made similar findings when she examined health disparities among migrants living in the United States. Health and illness were viewed as private matters and therefore close family and friends were seen as the primary and most reliable source of information (Bennett-Kimbrough, 2007).

Fourth, participants who had visited their General Practitioner (GP) for health concerns unrelated to menopause reported that in their countries of origin doctors have a high social standing in the community and they were therefore reluctant to ask questions about menopause-related health during these consultations. M. S. Hunter, Gupta, Papitsch-Clark, and Sturdee (2009) made similar findings in their study investigating menopausal experiences and perceptions among Indian-born women in the United Kingdom. They reported that menopause was not spoken about in their culture of origin and study participants attributed their lack of knowledge about menopause to this. These women were disappointed by the lack of menopause-related information provided by their GPs. To overcome this barrier for receiving menopause-related health information, participants in my study suggested that GPs should be proactive and provide information related to menopause and midlife even if the woman does not bring up the topic.

9.3.2 Language proficiency and literacy as determinants of health literacy

Host country language proficiency among migrants has been examined in the context of health care access and satisfaction. Several studies have found that lack of health information in languages other than the dominant language and limited access to interpreter services during health care consultations are the most commonly reported barriers related to health care satisfaction and access (Higginbottom et al., 2015; Mengesha et al., 2016; Morris et al., 2009). However, host language competence and literacy and its association with health literacy has rarely been explored in studies examining health information seeking capacity among migrants.

The few participants in this study who had sought health information from sources other than their family and friends, had predominantly accessed it from the internet. The internet has revolutionised how information, including health-related information, is accessed and shared (Ramsey, Corsini, Peters, & Eckert, 2017). In recent years health-related information

in community languages has increasingly become available on English language websites. However, some English language proficiency is needed to find and navigate the website to access the resources that are available in community languages. Furthermore, access icons which identify the availability of information in languages other than English are often in non-prominent positions which reduces the chance of people finding relevant information in their language. Therefore, most English language websites which host health information in languages other than English remain largely inaccessible to migrants with limited English languages proficiency.

Both, the migrant women who were interviewed (Stanzel et al., 2020a, 2020b) and the surveyed primary health care providers (Stanzel, Hammarberg, & Fisher, 2019) reported that information in community languages on English language websites is difficult to find. This limits the opportunity for migrant women to obtain health information in their preferred language and for health care providers to either offer additional resources or direct their patients to resources that can help them achieve better health in their later years.

In addition to being difficult to find, most available health information is offered in text-based format, requiring proficient literacy (Ramsey et al., 2017). However, among people from low- and middle-income countries, literacy levels are lower than among people in high income countries (United Nations Educational, 2018) as demonstrated in this study where some participants reported low literacy which precluded them from accessing and using text-based information either in print or online.

9.3.3 Responsive health care system as determinant of health literacy

The health care system, which in Sorensen and colleagues (2012) Integrated Model of Health Literacy is an antecedent of health literacy within the societal and environmental domain, has also been described as the health literacy environment (Australian Commission on Safety and Quality in Health Care, 2014). According to the Australian Commission on Safety and Quality in Health Care (2014) the health literacy environment which includes the health care infrastructure, practitioners, processes, policies and resources may act as a

barrier or enabler for people to access, understand, evaluate and use health-related information and services.

In Australia, most primary health care such as health promotion, disease prevention and screening, early intervention, and treatment and management of conditions is delivered by General Practitioners (GPs). The most recent data from the Australian Bureau of Statistics reported that over 83% of people in Australia consulted a GP at least once in the period between July 2014 to June 2015 making GPs the most common entry point to the health care system. This places them in an ideal position to provide opportunistic health promotion as part of their consultation (Australian Government, 2016).

However, the findings of my research indicate that, although migrant women from low- and middle-income countries viewed their GP as a reliable source of information, culturally informed behaviour and feeling 'rushed' during consultations prevented them from asking for information about menopause. The survey of health professionals confirmed that time constraints are a barrier to health promotion. They cited short routine consultation times as one reason why they do not routinely provide comprehensive midlife care to women from migrant backgrounds. This is a missed opportunity for what Stott and Davis (1979) describe as 'opportunistic health promotion' which they define as "the identification of risk factors and the provision of an appropriate intervention during any medically related consultation, regardless of presenting symptoms". (p.203)

Migrants' values, beliefs and practices about health and illness are shaped by their culture of origin. These perceptions and practices may differ from those in the host country (Andrews & Boyle, 2008). Therefore, migrants are likely to seek out health care providers from their country of origin or similar cultural backgrounds assuming that they share language and health-related beliefs (Bottomley & de Lepervanche, 1990). Hunter and colleagues (2009) investigated menopause-related experiences among migrant women from India. The authors found that study participants had consulted with Indian-born GPs because they believed that they would provide care that was based on health beliefs and practices common in their culture of origin. However, they expressed disappointment

because their GPs did not address and provide information about midlife health and menopause.

Australia is a multicultural country where more than a quarter of the population was born overseas (Australian Bureau of Statistics, 2016c). The Australian Population and Housing Census conducted in 2011 (Australian Bureau of Statistics, 2011) reported that 56% of GPs were trained overseas. It is therefore quite possible for many people to consult with a GP who can either converse in their native language or is from their country of origin. Most participants in this study used this strategy and predominantly consulted GPs from their country of origin or those who spoke their native language. However, their expectations that their health care provider would share similar health-related beliefs and provide menopause-related health care that followed participant's culture of origin beliefs and values were not met.

9.4 Implications for policy

The National Women's Health Strategy 2020-2030 established by the Australian Government, Department of Health builds on the National Women's Health Policy 2010. It identifies and outlines priorities and actions to address the emerging health concerns for women. Women from culturally and linguistically diverse backgrounds are among the priority populations identified in the strategy. The policy takes a life course approach and recognises that women experience diverse health needs and risks across their lifespan and that an individuals' health at each life stage is likely to affect the health at later stages (Australian Government, 2018).

The specific health needs and risks of women during midlife have been recognised in the 'Healthy Aging' and 'Chronic Conditions and Preventive Health' priority areas which outline actions and interventions that address determinants relevant to reduce chronic conditions and promote healthy aging. One such action is to develop and deliver an education campaign that raises awareness of the stages in a woman's lifespan and the key risk factors for chronic conditions and multimorbidity.

The findings of this study indicate that a national strategy which aims to raise awareness of midlife health behaviour and its links to chronic conditions and health in older age, ought to consider how health beliefs are influenced by culture of origin. Accordingly, community engagement with relevant stakeholder may enhance the design, development and delivery of health promotion campaigns aimed to reach migrant populations.

Further, the data suggest that the format of such education campaigns must be innovative in its approach. Education campaigns predominantly use text-based formats and visual medium including television which broadcasts health promotion messages in the host country language. Given that English-language proficiency and literacy skills have been identified as barriers to accessing health-related information, health education campaigns need to consider how these barriers can be addressed to ensure a wide reach across the entire population. For example, education campaigns which are to be shown on television could be produced and broadcasted in community languages with subtitles displayed in the host country language.

9.5 Implications for education

The survey of health professionals found that a third of health care providers lacked confidence providing menopause-related care to women from culturally and linguistically diverse backgrounds. This finding can be used to inform the National Women's Health Strategy 2020-2030 'Healthy Aging' priority area which identifies the need to increase training for health care professionals in menopause and older women's health in order to address key risk factors associated with older age. The 'Menopause Health Professional Tool' developed and published by the Jean Hailes Foundation guides practitioners through the process of clinical assessment and management of menopause. The Australasian Menopause Society and International Menopause Society provide information and fact sheets for health care practitioners including assessment of the reproductive cycle, hormonal and physiological changes during menopause, symptoms and available management options of menopause-related symptoms. However, information and learning resources about how the cultural and social environment influences women's perceptions and experiences of menopause are not considered. Although, culturally competent care has

been recognised as crucial in the provision of optimal care to people from diverse culturally and linguistically backgrounds (Kleinman & Benson, 2006), the social and cultural norms which influence the menopausal experience are currently not addressed in published menopause-related learning resources. The findings of this study can inform menopause-related resources for primary health care professionals about how culture influences perceptions and experiences of menopause and how these influence self-care strategies during the menopausal transition and in older age. For instance, the 'Menopause Health Professional Tool' published by the Jean Hailes Foundation provides health care providers with guidance to the initial diagnosis and the management of menopause, and highlights practice points and key messages. It includes assessment and management categories including phase of female reproductive cycle, commonly reported menopausal symptoms, routine screening, key messages, HRT/MHT, bone health and emotional well-being. Each category commences with introductory information about the topic followed by key assessment and practice information. An additional category could be 'socio-cultural assessment'. This category would commence with introductory information such as 'culture influences how individuals perceive menopause', followed by prompts of possible assessment questions including personal views of and beliefs about menopause, and chosen self-care strategies to manage menopausal changes. The information obtained through this assessment will aid practitioners in the provision of culturally competent care.

9.6 Implication for clinical practice

The findings from the semi-structured interviews suggest that migrant women are unlikely to proactively seek information about menopause from their health care providers. They suggested that conversations about menopause and postmenopausal health should be initiated by their health care providers during routine consultations. Yet, as reported by health care providers who completed the survey, the structural barriers such as time restricted consultations make the provision of comprehensive care difficult.

Innovative and proven models of care used in other spheres of women's health may be able to address these structural barriers. One such model is the One Key Question® which was developed by the Oregon Foundation for Reproductive Health as a screening tool to assess

patients' pregnancy intentions and provide information relevant to these (Allen, Hunter, Wood, & Beeson, 2017). The model was developed in response to the Centre for Disease Control and Prevention's recommendation that patients' intent and plans for pregnancy and preconception health behaviour was routinely to be assessed and patient education provided as necessary. However, studies investigating barriers in the implementation of these recommendations found that time constraints during routine consultations and limited knowledge by both the practitioners and patients were commonly reported (Stulberg, Datta, White VanGompel, Schueler, & Rocca, 2020). The One Key Question® asks women about their intent to conceive in the next 12 months. If the answer is no, this is an opportunity to mention the importance of reliable contraception to avoid unplanned pregnancy and refer the woman for contraceptive advice if she needs it. And, if the answer is yes or maybe, this opens the door for promoting the importance of preconception health optimisation and to suggest that women and their partner see their GP for a preconception health check before they start trying to conceive (Stulberg et al., 2020).

In primary health care, the principles of the One Key Question® could be applied to address the limited time during routine consultations. For instance, as part of any consultation the health care provider could ask women in midlife whether they have noticed any changes in their menstrual cycle pattern. If the answer is no, this is a chance to mention the average age of menopause, that menopause is a normal transitional life phase and a time when review and modifications in health behaviours will promote optimal health in later years. For women who request more information, referral to resources or additional services can be made. If women state that they have noted changes in their menstrual cycle pattern, then this is an opening to provide women with information about menopause, and the importance of health behaviours in midlife and after. To promote well informed understanding about menopause and postmenopausal health, health care providers can recommend that women either arrange for a follow up appointment, arrange for an appointment with an appropriate women's health service or provide additional resources women may follow up at home.

9.7 Implication for research

Surveyed primary health care providers believed that there was a lack of health resources for culturally and linguistically diverse people and endorsed a 'one stop website' which could act as a central access point for health information for people who are not from the dominant culture. An evaluation of health-related information websites in regards to accessibility, navigability and the variety of educational media posted may be a possible topic for future research. The findings could inform strategies how health information on the internet may become more accessible to health care providers in order to be used as educational resources during consultations or as additional information to be taken home by the patient which allows individuals to review the information at their own pace.

Results from the semi-structured interviews found that migrant women have limited health literacy capacity and that limited host language competency and literacy skills precluded many participants from accessing menopause-related information. Future research may investigate and evaluate health literacy interventions which are currently offered to newly arrived refugees and migrants and assess their effectiveness and efficiency.

The systematic review identified that menopause-related research considers menopause to be a negative experience. This notion is reflected in the study instruments used to assess menopause-related experiences. Most instruments use fixed response scales of mostly bothersome physical and psychological symptoms. Only a few instruments offer statements about positive aspects of menopause. Although, women may experience physical and psychological changes during and after menopause which they may find bothersome and distressing, this research suggests that migrant women experienced menopause as a new life phase associated with new privileges and well-being. However, there is a lack of menopause-related research that assesses the benefits of midlife and menopause and how these contribute to well-being and healthy aging.

The women in this study conceptualised menopause according to their culture of origin as a normal life transition and they did not ascribe to the prevailing notion, commonly promoted in high income countries, that menopause is a condition requiring hormonal treatment for relief of symptoms and prevention of disease (de Villiers, 2013). Menopause-related

literature also commonly refers to the physiological and psychological changes as 'symptoms' and as such demonstrates the conceptual link of menopause as a medical condition. Future research could examine the language used to describe the menopausal experience and explore new approaches of describing this normal life phase.

9.8 Conclusion

This research aimed to establish how women who migrate from low- and middle-income countries to a high-income country experience their menopausal transition and health after menopause; how they access, understand, evaluate and use menopause-related information; and their perceptions of menopause-related health care.

This research has found that migrant women in this study described their menopausal experience in the context of their culture of origin as a normal natural life transition. It influenced if and how they access information related to menopause. Those women who accessed formal information experienced considerable difficulties mainly due to limited English language proficiency, limited information in their preferred language and primary health care providers apparent unawareness of the health care needs of this population group. Primary health care providers identified limited expertise providing care to migrant women in midlife and structural barriers as the main reason for not providing menopause-related care opportunistically.

Menopause is a normal part of the reproductive life cycle in women. Jasper and colleagues (2015) argue that menopause is an opportune time for women and their health care providers to review women's health behaviours, engagement in health screening and health promotion activities, and promote healthy aging. This requires that menopause is recognised by the general public and health care providers as a normal key transitional life phase when new learnings offer the opportunity to adapt health behaviours that promote optimal health in older age.

Appendixes

Appendix 1: QualSyst checklist for assessing the quality of qualitative studies

Criteria		YES (2)	PARTIAL (1)	NO (0)
1	Question / objective sufficiently described?			
2	Study design evident and appropriate?			
3	Context for the study clear?			
4	Connection to a theoretical framework / wider body of knowledge?			
5	Sampling strategy described, relevant and justified?			
6	Data collection methods clearly described and systematic?			
7	Data analysis clearly described and systematic?			
8	Use of verification procedure(s) to establish credibility?			
9	Conclusions supported by the results?			
10	Reflexivity of the account?			

Appendix 2: QualSyst checklist for assessing the quality of quantitative studies

	Criteria	YES (2)	PARTIAL (1)	NO (0)	N/A
1	Question / objective sufficiently described?				
2	Study design evident and appropriate?				
3	Method of subject/comparison group selection <u>or</u> source of information/input variables described and appropriate?				
4	Subject (and comparison group, if applicable) characteristics sufficiently described?				
5	If interventional and random allocation was possible, was it described?				
6	If interventional and blinding of investigators was possible, was it reported?				
7	If interventional and blinding of subjects was possible, was it reported?				
8	Outcome and (if applicable) exposure measure(s) well defined and robust to measurement / misclassification bias? means of assessment reported?				
9	Sample size appropriate?				
10	Analytic methods described/justified and appropriate?				
11	Some estimate of variance is reported for the main results?				
12	Controlled for confounding?				
13	Results reported in sufficient detail?				
14	Conclusions supported by the results?				

Immigrant Women & Menopause

We would like to hear your experience



If you were born in Vietnam, aged between 45 and 60 years and are going through or have gone through menopause we would like to invite you to tell us your story of what it is like to go through menopause in Australia?

The interviews are for research and being conducted by:
Prof. Jane Fisher, Dr Karin Hammarberg and Karin Stanzel
from the Jean Hailes Research Unit,
School of Public Health and Preventive Medicine,
Monash University.

FOR MORE INFORMATION OR TO VOLUNTEER PLEASE CONTACT:
Karin Stanzel (for English speakers) on - SPHPM-Menopause.Study@monash.edu or
(03) 9903 0540 or
Trang Nguyen (for Vietnamese speakers) on 0451 786 385

As a Thank You each participant will receive a \$40 Coles-Myer gift card

Phụ nữ nhập cư & Giai đoạn mãn kinh Chúng tôi mong muốn được nghe trải nghiệm của bạn



Nếu bạn sinh ra ở Việt Nam, có thể nói và hiểu tiếng anh, tuổi từ 45 đến 60 và đang trải qua hoặc đã trải qua giai đoạn mãn kinh, chúng tôi mong muốn được mời bạn chia sẻ câu chuyện về việc bạn đã trải qua giai đoạn mãn kinh như thế nào tại Úc?

Các cuộc phỏng vấn cho mục đích nghiên cứu được thực hiện bởi:

GS. Jane Fisher, TS. Karin Hammarberg và Karin Stanzel

Đơn vị nghiên cứu Jean Hailes,

Trường Y tế Công cộng và Dự phòng,

Đại học Monash.

ĐỂ BIẾT THÊM CHI TIẾT HOẶC THAM GIA TÌNH NGUYỆN, XIN LIÊN LẠC:

Karin Stanzel (tiếng anh) theo email - SPHPM-Menopause.Study@monash.edu/ điện thoại –
(03) 9903 0540 hoặc

Nguyễn Trang (tiếng Việt) theo 0451 786 385

Để Cảm Ơn bạn đã dành thời gian cho nghiên cứu của chúng tôi, bạn sẽ nhận được thẻ quà tặng của Coles-Myer trị giá \$40

Immigrant Women & Menopause

We would like to hear your experience



If you were born in Eritrea, Ethiopia, Somalia, South Sudan or Sudan, aged between 45 and 60 years and are going through or have gone through menopause we would like to invite you to tell us your story of what it is like to go through menopause living in Australia?

The interviews are for research and being conducted by:
Prof. Jane Fisher, Dr Karin Hammarberg and Karin Stanzel
from the Jean Hailes Research Unit,
School of Public Health and Preventive Medicine,
Monash University.

FOR MORE INFORMATION OR TO VOLUNTEER PLEASE CONTACT:
Karin Stanzel on - SPHPM-Menopause.Study@monash.edu or (03) 9903 0540
Trained interpreters can attend the interviews to assist with communication

As a Thank You each participant will receive a \$40 Coles-Myer gift card.



EXPLANATORY STATEMENT

(Women born in Vietnam)

Project: Establishing menopause-specific health literacy and health care needs among immigrant women to inform health care practice and policy

Researchers: Prof Jane Fisher Dr Karin Hammarberg Ms Karin Stanzel

Jean Hailes Research Unit

School of Public Health and Preventative Medicine

Monash University

Email: SPHPM-Menopause.Study@monash.edu Phone: 9903.0540

You are invited to take part in this study. Please read this Explanatory Statement in full before deciding whether or not to participate in this research.

What does the research involve?

- You will be asked to talk about your perceptions and experiences of menopause, menopause information and health care
- You can say as much or as little as you like. We expect the interviews to last between 30-60 minutes.
- Volunteers will be interviewed by Ms Karin Stanzel who is conducting this research as part of her PhD. Karin has worked in women's health for 20 years and has extensive experience talking to women.
- With your permission, the interview will be audio-recorded so that we accurately capture what you say.
- The interview will be transcribed by the chief investigator or a professional transcription service.

Why were you chosen for this research?

- You were chosen for this research because you are an immigrant women aged between 45 and 60 years.
- You are experiencing or have experienced the menopausal period.
- You were born Vietnam.

Consenting to participate in the project and withdrawing from the research

- You can consent by signing the consent form. You can send it to us or give it to us at the time of the interview.
- You can withdraw from the research up to two weeks following your interview and your recording of the interview will be deleted.

Source of funding

- Ms Karin Stanzel is a PhD candidate and is supported by an Australian Government Research Training Program Scholarships.
- Prof Fisher is supported by a Monash Professorial Fellowship and the Jean Hailes Professorial Fellowship which is funded by the L and H Hecht Trust managed by Perpetual Trustees Pty Ltd.

Possible benefits and risks to participants

- We can't promise that you will personally benefit from this research. The information you provide will contribute to research and knowledge that we hope will help other immigrant women around Australia. As a Thank You each participant will receive a \$40 Coles-Myer gift card.
- It is possible that talking about your experiences of going through menopause could bring up upsetting thoughts or memories. If this happens, you can take a break or stop the interview at any time.

Confidentiality

- We will change or remove any details in your interview transcript (including your name) that could identify you.
- When we write or publish the results, we will make sure that no person who participated in the research can be identified.

Storage of data

- The transcripts will be stored in a secure password-protected file on the Monash University system and accessible only to Ms Stanzel, Prof Fisher and Dr Hammarberg.
- The original audio recording will be deleted after the transcripts have been checked for accuracy. Original transcripts will be deleted in accordance with Monash University policy, which is usually 5 years after the research ends.

Results

- If you would like a summary of the results, please give us your contact details and we can send them to you. It will take some time to analyse all the interviews; results are unlikely to be available before the beginning of 2019.

Thank you for your interest in this research.

Complaints

Should you have any concerns or complaints about the conduct of the project, you are welcome to contact the Executive Officer, Monash University Human Research Ethics (MUHREC):

Executive Officer

Monash University Human Research Ethics Committee (MUHREC)

Room 111, Chancellery Building E,

24 Sports Walk, Clayton Campus

Research Office

Monash University VIC, 3800

Tel: +61 3 9905 2052

Email: muhrec@monash.edu

Fax : + 61 3 9905 3831

Further support

If the interview brings up any upsetting thoughts or memories and you would like further support you might like to speak with your GP or counsellor. You can also call Life Line on 13 11 14.



EXPLANATORY STATEMENT

(Women born in Horn of Africa Nations: Eritrea, Ethiopia, Somalia, South Sudan or Sudan)

Project: Establishing menopause-specific health literacy and health care needs among immigrant women to inform health care practice and policy

Researchers: Prof Jane Fisher Dr Karin Hammarberg Ms Karin Stanzel

Jean Hailes Research Unit

School of Public Health and Preventative Medicine

Monash University

Email: SPHPM-Menopause.Study@monash.edu Phone: 9903 0540

You are invited to take part in this study. Please read this Explanatory Statement in full before deciding whether or not to participate in this research.

What does the research involve?

- You will be asked to talk about your perceptions and experiences of menopause, menopause information and health care.
- You can say as much or as little as you like. We expect the interviews to last between 30-60 minutes.
- Volunteers will be interviewed by Ms Karin Stanzel who is conducting this research as part of her PhD. Karin has worked in women's health for 20 years and has extensive experience talking to women.
- With your permission, the interview will be audio-recorded so that we accurately capture what you say.
- The interview will be transcribed by the chief investigator or a professional transcription service.

Why were you chosen for this research?

- You were chosen for this research because you are an immigrant women aged between 45 and 60 years.
- You are experiencing or have experienced the menopausal period.
- You were born in Horn of African nations (Eritrea, Ethiopia, Somalia, South Sudan or Sudan).

Consenting to participate in the project and withdrawing from the research

- You can consent by signing the consent form. You can send it to us or give it to us at the time of the interview.
- You can withdraw from the research up to two weeks following your interview and your recording of the interview will be deleted.

Source of funding

- Ms Karin Stanzel is a PhD candidate and is supported by an Australian Government Research Training Program Scholarship.
- Prof Fisher is supported by a Monash Professorial Fellowship and the Jean Hailes Professorial Fellowship which is funded by the L and H Hecht Trust managed by Perpetual Trustees Pty Ltd.

Possible benefits and risks to participants

- We can't promise that you will personally benefit from this research. The information you provide will contribute to research and knowledge that we hope will help other immigrant women around Australia. As a Thank You each participant will receive a \$40 Coles-Myer gift card.
- It is possible that talking about your experiences of going through menopause could bring up upsetting thoughts or memories. If this happens, you can take a break or stop the interview at any time.

Confidentiality

- We will change or remove any details in your interview transcript (including your name) that could identify you.
- When we write or publish the results, we will make sure that no person who participated in the research can be identified.

Storage of data

- The transcripts will be stored in a secure password-protected file on the Monash University system and accessible only to Ms Stanzel, Prof Fisher and Dr Hammarberg.
- The original audio recording will be deleted after the transcripts have been checked for accuracy. Original transcripts will be deleted in accordance with Monash University policy, which is usually 5 years after the research ends.

Results

- If you would like a summary of the results, please give us your contact details and we can send them to you. It will take some time to analyse all the interviews; results are unlikely to be available before the beginning of 2019.

Thank you for your interest in this research.

Complaints

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Email: muhrec@monash.edu

Fax : + 61 3 9905 3831

Further support

If the interview brings up any upsetting thoughts or memories and you would like further support you might like to speak with your GP or counsellor. You can also call Life Line on 13 11 14.



CONSENT FORM (Participant Copy)

Women born in Vietnam

Project: 'Establishing menopause-specific health literacy and health care needs among immigrant women to inform health care practice and policy'

Chief Investigator: Prof Jane Fisher

I have been asked to take part in the Monash University research project specified above. I have read and understood the Explanatory Statement and I hereby consent to participate in this project.

Name of Participant _____

Participant Signature _____

Date _____



PHIẾU ĐỒNG Ý THAM GIA NGHIÊN CỨU **(Bản cho người tham gia)**

Phụ nữ sinh ra tại Việt Nam

Tên nghiên cứu: ‘Xác định hiểu biết về giai đoạn tiền mãn kinh và nhu cầu chăm sóc y tế của nhóm phụ nữ nhập cư nhằm cung cấp bằng chứng cho dịch vụ chăm sóc y tế và chính sách’

Nghiên cứu viên chính: Giáo sư . Jane Fisher

Tôi được mời tham gia vào nghiên cứu của trường Đại học Monash. Tôi đã đọc và hiểu bản Thông tin về Chương trình Nghiên cứu và tôi đồng ý tham gia nghiên cứu này.

Tên người tham gia _____

Chữ ký của người tham gia _____ Ngày _____



CONSENT FORM (Participant Copy)

Women born in Horn of Africa Region

Project: 'Establishing menopause-specific health literacy and health care needs among immigrant women to inform health care practice and policy'

Chief Investigator: Prof Jane Fisher

I have been asked to take part in the Monash University research project specified above. I have read and understood the Explanatory Statement and I hereby consent to participate in this project.

Name of Participant

Participant Signature

Date

Interview Questions for Women

Introductory script: “Hello, my name is Karin Stanzel, I have worked many years as a women’s health nurse and I am now a PhD student of Monash University. Thank you very much for agreeing to speak with me and being part of this study. The explanatory sheet has already given you information and I would like to give you a quick overview of the project and answer any questions you may have.

We know our experiences are shaped by the country we grew up in and by the country we live in. With this interview I am interested in what it is like for you having grown up in a different country and now going through menopause in Australia. I would like to find out what women who were born overseas do to look after their health, how they find information about menopause and when they see a health provider like a doctor or a nurse for menopause problems and what that experience was like. Everything you say is confidential that means it is kept private. I will change or remove any details in your interview transcript (including your name) that could identify you. After listening and transcribing (typing up the interview) I will delete the audio-recorded interview. The typed up interview is stored on the computer at the university, but only my supervisors and I can access it. Any paper document such as your consent form is kept in a locked filing cabinet at the university. Also, if you decide during the interview and even after the interview that you don’t want to be part of the project anymore, you can withdraw i.e. you can get out of it. I can do this until I have combined your information with other participants which is about two weeks after the interview. Is it okay with you, if I audio record the interview? Do you have any questions before we start with the interview?

So as I said I am interested in hearing from you what menopause is /was like for you. So my first question..... “

Question Objective	Question	Prompts/follow up
General background	Could you please tell me about your menopause experiences?	What is/was it like?
	How do people think or talk about menopause in (Country of Origin) and is that different to how people think or talk about it in Australia?	Illustrative example – in Australia when people speak of menopause they often speak about symptoms such as hot flushes

Exploration of self-care strategies	Please, tell me how you look after your health and if there is anything in particular you do to relieve symptoms of menopause.	Can you give me an example? Past Present
	Are there any special practices for relieving menopausal symptoms in your country of origin?	
Menopause-specific information and services Access, understand, appraise and apply	Did you ever feel that you needed or did you ever look for health information about menopause? If yes, at what stage of menopause did you need or look for information?	By stage I mean whether you had noticed changes in your body or had experienced any physical symptoms that were new to you.
Access	Could you please give me examples on what you wanted to know more about?	E.g. menopause and osteoporosis
Access	Could you tell me how you went about finding this information, please?	Where did you search for information? E.g. health professionals, internet, local library?
Access	Did you find what you were looking for and if so, where did you find the information?	E.g. Magazine, websites. What was that like?
Understand	Once you found the information, did it help and did you feel that your questions were answered?	Medical jargon?
Appraise	How did you know that this information was reliable-trustworthy?	

Apply	Could you please tell me if you took any action as a result of what you learned?	Was it easy to use? Was is relevant to you? ? Cultural appropriateness.
Menopause-specific health care	Have you seen a health services/providers for menopausal health problems?	E.g. doctors, nurses, women's group facilitators
	What was your experience like with the HCP/HCS?	
	Do you have any suggestions for how this experience/these experiences could have been improved?	

Appendix 12: Demographic information sheet



Interview Number:

Pseudonym:

Sociodemographic data:

In which country were you born?

What year did you arrive in Australia

Do you know what year you were born in or if you are not sure could you estimate it?

What is your marital status?

Do you have children? If yes, how many?

What kind of work do you do?

Are you working in paid employment?

What level of schooling have you completed, so far?



CONSENT FORM (Investigator Copy)

Vietnamese Immigrant Women

Project: 'Establishing menopause-specific health literacy and health care needs among immigrant women to inform health care practice and policy'

Chief Investigator: Prof Jane Fisher

I have been asked to take part in the Monash University research project specified above. I have read and understood the Explanatory Statement and I hereby consent to participate in this project.

Name of Participant _____

Participant Signature _____

Date _____



CONSENT FORM (Investigator Copy)

Women born in Horn of Africa Region

Project: 'Establishing menopause-specific health literacy and health care needs among immigrant women to inform health care practice and policy'

Chief Investigator: Prof Jane Fisher

I have been asked to take part in the Monash University research project specified above. I have read and understood the Explanatory Statement and I hereby consent to participate in this project.

Name of Participant _____

Participant Signature _____

Date _____



Primary Health Care Provider Survey



Monash University is conducting research investigating menopause-related experiences and health care needs among women who have migrated from low and middle income countries.

If you provide care for women in midlife who have migrated from low and middle-income countries to Australia, we are very keen to learn about your experiences and information needs.

Please assist by completing a short anonymous survey and the chance of winning one of three \$100 Coles-Myer Gift Vouchers.

Please click the link: https://monash.az1.qualtrics.com/jfe/form/SV_3fo8AQKMsgQRfwx

Or email Karin Stanzel on sphps-menopause.study@monash.edu or scan below to access the survey



You can download the QR code scanner free from the app store.



EXPLANATORY STATEMENT

Project ID 15095: Health care providers' learning needs for providing culturally competent menopause-related health care

Researchers: Prof Jane Fisher Dr Karin Hammarberg Ms Karin Stanzel

Global Public Health

School of Public Health and Preventative Medicine

Monash University

Email: SPHPM-Menopause.Study@monash.edu Phone: 9903 0540

You are invited to participate in this research because you are a health care practitioner providing menopause care to women who migrated from low and middle-income countries. Please read the Explanatory Statement in full before deciding whether or not to participate in this research. If you would like further information regarding any aspect of this project, please contact us via the phone number or email address provided below.

What does the research involve?

The overall aim of this study is to gain a better understanding about health care practitioners' experiences, learning needs and barriers in providing menopause-related care to women who have migrated from low and middle-income countries.

Participation in any research project is voluntary. If you agree to participate you will be asked to complete an anonymous online survey. The survey will take less than 10 minutes to complete.

Consenting to participate in the project and withdrawing from the research

By participating you are telling us that you:

- understand what you have read;
- consent to participate in the research project;
- consent to be involved in the procedures described.

If you decide to take part and later change your mind, you can withdraw from the project before you submit your survey responses. However, once you have submitted your responses, we are unable to extract them from the pool of anonymous responses that we receive.

Possible benefits and risks to participate

The information you provide will improve understanding of the barriers and enablers for providing menopause care to women who migrated from low and middle-income countries.

In recognition of your time you can enter a draw for one of three \$100 Coles-Myer gift cards once you have completed the survey. Instructions will be provided at the end of the online survey about how to enter the draw.

There are no foreseeable risks of participation.

Results of this research project

A summary of the findings of the research will be available at the end of the study to those who completed the survey.

Storage of Data

No identifying information about you will be collected. The anonymous responses you provide will be stored on password protected computers at Monash University and accessible only to Ms Stanzel, Prof Fisher and Dr Hammarberg.

Access to research information about you

Because information about you for this survey will be gathered and stored anonymously, it will not be possible for the researchers to give you access to it.

Source of funding

- Ms Karin Stanzel is a PhD candidate and is supported by an Australian Government Research Training Program Scholarships.

Contact

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Menopause care for women who migrated from low and middle-income countries: what works?

We are interested to learn about your experiences of caring for women in midlife who have migrated from low and middle-income countries (referred to as immigrant women for brevity). This is a brief survey which includes questions about how immigrant women understand and manage menopause, your current practice and needs in regards to providing menopause-related care to immigrant women.

This survey is part of my PhD describing health literacy and health care needs in midlife among immigrant women. I have worked as a Women's Health Nurse for over 20 years. In my work I experienced gaps relating to access of menopause-related health resources and care which motivated me to explore these gaps and how they could be addressed.

This anonymous online survey takes less than 10 minutes to complete. At the end of the study a summary of the findings will be available to those who complete the survey. In recognition of your time you can enter a draw for one of three \$100 Coles-Myer gift cards once you have completed the survey.

[Insert link to Explanatory Statement here](#)

Section 1: Cross-cultural research suggests that the experience of menopause and midlife is shaped by culture. In this section we are asking you about your understanding how immigrant women manage menopause and about the barriers and enablers in providing menopause-related care.

1. In your experience to what extent do peri-menopausal and postmenopausal immigrant women ...

	Not at all	Very Little	Quite a Bit	A Great Deal	Don't know
... understand why menopause occurs					
... recognise menopause-related symptoms					
... worry about menopause					
... ask their health care provider questions about menopause					
... are bothered by menopause-related symptoms incl. vasomotor symptoms					
... use traditional remedies from their country of origin to manage their menopause					

... are interested in 'Western' medical menopause management options					
... talk to their friends about menopause					

2. Do you believe that menopausal immigrant women ...

	Not at all	Very Little	Quite a Bit	A Great Deal	Don't Know
... are interested in menopause-related information					
... are able to access menopause-related information					
... understand menopause-related information					
... are able to identify whether menopause-related information is trustworthy in terms of content					
... are able to identify whether menopause-related information is trustworthy in terms of its source					
... are happy to follow 'Western' guidelines on menopause management					
... prefer to use traditional remedies from their country of origin					

3. In your practice, how often do immigrant women see you for menopause-related care?

- a. Never
- b. Sometimes
- c. Often

4. Under what circumstances do you provide menopause-related health information?

- a. I discuss menopause-related health only when the women ask for information and advice
- b. I bring up the subject if the woman mentions any menopause-related problems
- c. I routinely provide menopause-related health information to women in midlife

5. In your view, what are the barriers for discussing peri-menopausal and postmenopausal health with immigrant women?

	Strongly disagree	Disagree	Agree	Strongly agree	Not sure
Routine appointment length is insufficient					
I am not confident working with interpreters					
Lack of confidence working with women from diverse cultural backgrounds					
Lack of culturally and linguistically appropriate menopause-related health resources					
It is too time consuming					

5a. Have you identified any additional barriers for discussing menopause-related health with immigrant women? If so, please specify

6. To provide comprehensive menopause health consultations there needs to be ...

	Strongly disagree	Disagree	Agree	Strongly agree	Not sure
.... a Medicare item number reflecting the time involved					
... a practice nurse with qualifications in women's health					
... women's health services to refer immigrant women to					
...a one-stop website which provides health information fact sheets including links to health information websites					

in relevant community languages					
... accessible interpreter services					

6a. Have you any other suggestions for how comprehensive menopause-related health consultations to immigrant women can be facilitated? If so, please describe

Section 2: Questions about you:

7. What is your gender?

Female

Male

Other _____

8. What is your age?

Less than 35 years

35-44 years

45-54 years

55-64 years

65 years and older

9. Do you speak a language other than English?

a. Yes, please specify _____

b. No

10. What is your profession?

General Practitioner

Nurse Practitioner

Community Health Nurse

Practice Nurse

Refugee Health Nurse

Sexual and Reproductive Health Nurse

Other

11. In which country did you obtain your original qualification?

a. Australia

b. Other, please specify

12. What year were you first registered in Australia?

13. How many years have you been practicing in Australia?

a. Less than 5 years

- b. 5-10 years
- c. 11-20 years
- d. More than 20 years

14. In which state or territory do you work?

- a. ACT
- b. New South Wales
- c. Northern Territory
- d. Queensland
- e. South Australia
- f. Tasmania
- g. Victoria
- h. Western Australia

15. Geographical location of your work setting

- a. Metropolitan
- b. Rural
- c. Remote
- d. Interface council (Local government area that has both rural and urban suburbs)

16. Type of organisation of your main employment

- a. General Practice
- b. Community Health
- c. Hospital
- d. Regional Health Service
- e. Remote Health Service

17. On average how many hours do you work per week?

- a. Casual (less than 4 hours)
- b. Part-time (less than 32 hours)
- c. Full-time (32 hours and more)

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