

# Menopause-related health literacy: a qualitative study of experiences and perceptions of menopause-related health care among Vietnamese-born women in Melbourne, Australia

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## Research article

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# Abstract

Background 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 non-English speaking 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 explored menopause-related health literacy and experiences with menopause-related health care among Vietnamese-born women who had immigrated to Australia as adults. Methods A qualitative study using semi-structured interviews was conducted with women aged between 45 – 60 years and peri or postmenopausal. 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 immigrant Vietnamese-born 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.

## Background

Health literacy is defined as the capacity to access, understand, evaluate and use health-related information to make appropriate decisions regarding health behaviour and health care. This definition provided the foundation for the Integrated Health Literacy Model proposed by Sorensen et al. [1] which describes health literacy as a multidimensional concept consisting of different components and determinants and health system factors as well as the pathways linking health literacy to health outcomes. The Australian Government Commission on Safety and Quality in Health Care [2] separates health literacy into two components. First, an individual's capacity to make well informed health-related decisions and second, a health system that considers the individual's capacity to negotiate this system and recognises this as integral to public health. Low health literacy is associated with worse health outcomes and is more prevalent among people from socioeconomically disadvantaged backgrounds, people from non-English speaking backgrounds and those who have limited education. People with low health literacy are less likely to participate in health screening and are more likely to use emergency care and are at greater risk of hospitalisation [3]. In Australia, the Adult Literacy and Life Skills Survey reported that most older adults, from non-English speaking backgrounds have inadequate health literacy skills to enable well-informed health-related decisions [4].

Australia is a multicultural society where more than a quarter (26 %) of the population was born in other countries [5]. Immigration is often characterised by social and economic disadvantage [6]. Immigrant women are known to be particularly vulnerable, because they may have had limited choices in the decision to

immigrate, [7–9] may have had limited educational opportunities [9] and have difficulties accessing culturally and linguistically relevant health resources and health care in their new country of residence [10].

Vietnam is the fifth most common country of birth among Australians born overseas [11]. After the fall of Saigon and 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 there were nearly 200,000 Vietnamese-born people living in Australia [5]. In Victoria, over 80,000 people were born in Vietnam of whom nearly 21,000 are women 45 years and older [11].

Health behaviour during the menopausal transition predicts health in later life [12]. To make well informed health-related decisions during the menopausal transition, women need to have robust health literacy skills and have access to a health care system that is accessible, navigable and responsive [2].

A recent review of research investigating perceptions of menopause-related health, health behaviour and health care among immigrant women found that immigrant women reported more vasomotor and physical symptoms and poorer mental health than women from the host country and concluded that more research is needed to better understand how immigrant women manage their menopausal transition and how to provide culturally relevant menopause-specific health care. [13]

Little is known about how immigrant women access, understand, evaluate and use menopause-related health resources and the barriers and enablers predicting adequate menopause-related health literacy. The aim of this study was to describe 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 explore their experiences and satisfaction with menopause-related health care and services.

## **Methods**

### **Study design**

Qualitative methods are used to gain a deep and fine-grained understanding of perceptions and lived experiences, in particular of aspects of human health about which little is known [14]. In this study data were collected using individual semi-structured interviews [15].

### **Study setting**

The study was conducted in Melbourne, Australia. The 2016 Australian Census data reported that nearly a third of people living in Victoria were born in a country other than Australia of which Vietnam was the fifth most common [5].

Australia has a two-tiered health care system. All citizens are entitled to primary, specialist and hospital-based health care without fees through the national Medicare scheme. It is funded publicly, including through a levy on all taxpayers. Individuals can also purchase private health insurance which can be used to fund hospital care and medical providers of choice [16].

# Participants and recruitment

Women were eligible to participate if they were: born in Vietnam, aged between 45 and 60 years, and peri- or postmenopausal. Menopausal status was determined using the Stages of Reproductive Aging classifications which state that women whose menstrual bleeding has become increasingly more irregular and whose last menstruation occurred in the previous 3–12 months are considered to be peri-menopausal and women who have had 12 consecutive months of amenorrhoea in the absence of pathological or physical reasons are considered to be postmenopausal [17].

A sample of up to 15 participants was anticipated to provide sufficient information to describe in detail experiences and perceptions of the menopausal transition and postmenopausal health, including menopause-related health literacy and health care services among women who had migrated to Australia from Vietnam [18].

Several strategies were used to inform potential participants about the study. Flyers in English and Vietnamese explaining the purpose of the study, eligibility criteria and the researchers' contact details (K. S. and T. N., a Vietnamese-born bilingual researcher) were distributed at food markets, community groups and community health services in areas with a high proportion of migrants from Vietnam. The flyer was also distributed electronically to community health centres, women's health organisations, and community and learning centres offering language classes. K. S. made phone contact with the facilitator of a Vietnamese Women's group who invited her to join this group to introduce the study. Finally, K. S. telephoned or emailed relevant community health staff to introduce the project and seek their support for it. Women who wished to participate in the study were asked to telephone K. S. or T. N.

## Data source

An interview guide was developed based on the published literature, the researchers' clinical and research experience in women's health, the Integrated Model of Health Literacy and the research questions. Each interview began with an open-ended invitation to the participants to describe their experiences of menopause. Follow-up questions then explored how people think and talk about menopause in Vietnam, self-management strategies for menopausal symptoms, and experiences of menopause-related health information and health care. Health literacy was gauged using Sorensen and colleagues' Integrated Model of Health Literacy [1]. Questions were asked about where participants searched for information; whether they were able to find what they needed; whether the information was understandable and answered their question; whether the source and information was perceived as trustworthy and whether the information was relevant and easy to use. Sociodemographic information including age, year of immigration, marital status, employment status and level of education was gathered in brief fixed-response questions at the end of the interview.

## Procedure

Women who volunteered to participate were contacted to confirm eligibility and, if eligible, a time for the interview was arranged. The interviews were conducted at a place convenient for the participant. All participants

were provided with a written plain language statement in Vietnamese or English and written consent was obtained before the interview.

No strict order of questions was followed allowing for flexibility and for the interviewee's narrative to unfold. Participants' responses guided the conversation and determined the next question. Interviews conducted by K. S. in English, were audio-recorded with permission and transcribed verbatim. T. N. acted as interpreter in interviews with women who had insufficient English language proficiency. These were also audio-recorded with permission and the interpretation was transcribed. Additionally, K. S. kept detailed field notes and a reflective diary. To protect anonymity participants could either choose a pseudonym or, if they preferred, a pseudonym name was chosen from a website of female Vietnamese names. Participants were given a AUD\$40 shopping voucher to cover travel and parking costs and in recognition of their time.

## **Data management and analysis**

The transcripts were entered into Nvivo 11 for analyses. Data were analysed thematically as described by Braun and Clark [19]. This method involves six phases: becoming familiar with the data through transcription; repeatedly reading the transcripts; assigning initial codes inherent to topics in the interview guide; grouping codes into original themes introduced by participants; refining the themes and selecting quotes that best 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 using illustrative quotes.

## **Results**

Twelve women agreed to participate and were 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 bi-lingual researcher T. N. All interviews were conducted face-to-face. Ten interviews were conducted in the participant's home and two in an interview room at Monash University. The characteristics of the participants are shown in tables 1 and 2. Most were in their late fifties, postmenopausal and half of the participants were married. Seven women had completed their primary education and three women were engaged in paid employment.

**[Table 1 near here]**

**[Table 2 near here]**

Four themes emerged from the data: Menopausal experiences - It's natural, it's normal; Influences of culture on the experience of menopause; Barriers for menopause-related health literacy; and Barriers and enablers for optimal menopause-related health care.

## **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 think is natural so [laughs] ... nothing happens to my health, so everything is normal. (Hung - translated)

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 - translated)

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, keeps laughing and then laughingly says] leave me alone don't talk to me too much. (Tara)

If they [people] do something, I not feel like that, and I angry with them. I have a bad temper [laughs]. Now it's okay ...but sometimes I [still] get angry with people for no reason. (Hanh)

Last month my husband said something and I feel very angry. I was in the kitchen and I threw dishes on the floor and broke them all [laughing.] (Thi - translated)

The underlying belief that menopause is a normal phase of 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 health.

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

Some people advised me to go to the Chinese herbalist so then I take some medicine from them just like a bag Chinese herbal ... [and] I feel better. We use some flower I don't know what is it [called] and, I will cook and boil and then we extract the water and we drink [it]. (Hanh)

I don't know we have some medic... um traditional herbs ... and I prefer that, not the medication. (Tien - translated)

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

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

The doctor said that when you have irregular period ... last for like 1, 1 or 2 years and it's fine. (Hung - translated)

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 a belief that the medication was not necessary.

I go to see the doctor and the doctor said that everything functioned well so she asked me about my age and she thinks that maybe I have menopause and she prescribed some medication for me, [but] I didn't take it, and I didn't care for it ... (Linh - translated)

I went to the family doctor and I tell him about like it is difficult to sleep and he gives me some medication and when I take the medication I sleep so well. But I think if I take the medication it will reduce my memory and it makes the symptoms more severe that's why I didn't use it. (Tien—translated)

## **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 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 Vietnamese contemporaries; 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 used to work in a bank as the bank officer and I had some colleagues, some were younger and some were older than me and some of them they experienced menopause and then they talked to me about the experience. Now I know 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 - translated)

I also talk to some friends and um and just to ask whether they have similar symptoms. And I found that people have different symptoms of menopause. (Minh - translated)

In Vietnam the people use Chinese herbal Vietnamese herbal to treat with the menopause. (Hanh)

Participants reflected that there are few health services and little health information for women in Vietnam, particularly menopause-related health care and health information. This was thought to be partially due to a lack of government policies and health care funding.

I don't know if now they have changed any, but I think that they not um concentrate on the heal ... the people's health. They don't talk any 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)

... there is no more, not many information. (Thi - translated)

Hanh, reflected on how the lack of health promotion programs in Vietnam influences people's health behaviour. She believed that this is why people in Vietnam only seek medical care for illnesses.

Mm, most of Vietnamese they didn't worry about the future what happen in future ... just when they get pain or something, something very strange in their body. But they [Vietnamese-born people] didn't worry about the... that new that sickness that will happen to them. Like most of 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 ... most Vietnamese people doesn't worry about their health. (Hanh)

All participants had embraced the Australian health care system by attending cervical and breast-screening programs which are offered free of charge to women. 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 them. (Quy - translated)

## **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 relative as their main source of information.

I asked my friends and some elders who know about that, but they [said] that's normal every women experiences that. (Thi - translated)

I didn't search for any information just talking to friends and they share some experience. (Tien - translated)

Only some 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 mh ... 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.

I think that everyone has to ... to know that [what] food is delicious or not. [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 my [looking for word] um, um my thinking, my reading and my trusting. Someone who drink water or drink orange [juice] will know what the different taste. If we not drink it, we don't know is good or is bad. You could not say before ... yourself [have] experienced [it].

Appraising health information offered on the internet poses particular challenges for individuals with low health literacy as it is difficult to judge the quality of the information and the credibility 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 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. (translated)

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 then ... [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 most participants perceived that menopause-related health care is not a priority in Vietnam and 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 consulted their Vietnamese-speaking GP about menstrual changes and others 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 of the not ovarian, it just the ... pap test, yeah and then by the way I asked the family doctor, I only have worries about whether if we have menopause after 50 years old whether it is good for your health. And she said it is okay if you are 48, the normal range. That is why she only answered the question this one, and she didn't give any further information. (Minh - translated)

Participants expressed regret that GPs did not discuss the implications of menopause for their physical and emotional 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 menopause participants suggested that GPs need to initiate conversations about menopause.

I think the, the doctor have to welcome, has to ask them first, invite question. They [women] silent, in you know in my culture. We only respect, high respect doctor, something like that. Maybe they [doctors] decide to ask her

[patient] about that [menopause], they say okay, okay, they just say yeah, yeah, yeah they not show, show emotion like the emotion or they not show something, they, 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 all the health problems as well, not only menopause and um, give advice what to do but actually like according to our Asian culture so [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 - translated)

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—translated)

... but actually, 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, share some woman's problems. So I am looking for a female doctor who can speak Vietnamese, but it's hard. (Linh—translated)

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

... to tell you the truth that is my, the GP are not help much because they have less time for any patient. Ah ... they just have about 5 minutes 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)

The doctor is seemingly busy so that's why I don't, I was so shy to ask more questions. (Minh—translated)

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 four remaining participants recognised the limitations in their English language proficiency and as a result also chose Vietnamese-speaking GPs.

I think all, all Vietnamese especially Vietnamese no speak English, because we go, normally, we go to the Vietnamese doctor. And she can ... she check with us, [in] my, 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.

Last time when I went to the hospital and my children took me there she [daughter] just helped her 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 and luckily it's a female doctor, and um cause she said to me you can take of your coat and I understand it and sometimes she said that like just sit uh, sit close to the machine or something 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 um a medical check-up of my body but when I want to ask information about me, 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 in adulthood 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 to 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 most common barrier to accessing, understanding and applying health-related information.

Adequate health literacy is a key predictor for optimal health outcomes. Sorensen and colleagues' [1] model of health literacy has mostly been examined in quantitative surveys using questions with fixed response options. Pleasant et al [20] concluded that there were knowledge gaps in health literacy research about individual experiences, including how people access, understand, evaluate and use health information.

This study meets Pleasant et al's [20] call by using qualitative methods which generate in-depth understanding of human experiences, perceptions and attitudes about which little is known [18, 21]. Strengths of the study include: participants were from a vulnerable, difficult to access minority group, they were recruited in community settings; 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 researcher. Cross-cultural and cross-lingual research pose unique challenges [22]. 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. To minimise this risk the research team included a Vietnamese-born researcher who is fluent in Vietnamese and English and familiar with Vietnamese culture. Furthermore, excerpts of transcripts of interviews conducted with the assistance of the bi-lingual researcher were checked for accuracy by a second bilingual and bicultural researcher.

Health literacy as proposed by Sorensen et al [1] requires four competencies: capacity to access, understand, evaluate and use health-related information.

Access refers to the ability to 'seek, find and obtain' health-related information. Our data suggests that accessing menopause-related health information is influenced by culture. In high resource countries health care providers are accepted as primary sources of health advice and information. If women discuss menopause-related issues with their female peers and family members it is mostly done after consulting a health care provider and in order to process the information [23, 24]. This contrasts with our findings among Vietnamese-born women living in Australia, who primarily seek advice and information about menopause-related symptoms from older female relatives and friends and only occasionally use health care providers, the internet and printed

material. This may in part be explained by cultural practices in their country of origin where health care is predominantly sought for illnesses, and less for health promotion and information. Our data indicate that participants had limited knowledge about how and where to access information, which was worsened by their limited English language proficiency. The inability to access information leaves individuals vulnerable as it increases the likelihood of learning through informal sources which may provide incorrect information and promote unproven remedies.

Sorensen et al [1] defines '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 [25]. Killian and Coletti [26] argue that health professionals' vernacular act as a barrier for understanding and evaluating health-related information. To improve health information communication in Australia, health literacy recommendations have been established which include implementing policies and systems at an organisational level; integrating health literacy into education to both consumers and health care professionals; and ensuring effective communication by providing directions for the development, review and improvement of written information. [27] Despite this, studies on the readability of health-related information indicate that the content of most Australian health information websites [28] and printed material exceed the reading level of the average person [29]. The inability to communicate proficiently in the dominant language is a significant additional challenge in understanding and evaluating health-related information [30–32]. Our data indicate that limited English language proficiency and lack of accessible information in Vietnamese are significant barriers for Vietnamese-born women's ability to understand and evaluate menopause-related information.

Understanding of health and illness is influenced by culture. Studies investigating beliefs about the aetiology of illness in south East Asian cultures have found that it is attributed to organic problems such as weakening of nerves, imbalance of yin and yang, obstruction of chi, or a curse by insulted spirits. In addition, some immigrants from South-East Asian nations believe their physical constitution is different to Caucasians' and consider Western drugs and drug dosages not appropriate for Asians. Consequently, they may accept a GPs prescription, but not fill it [33]. The Vietnamese-born women in this study followed their GPs' recommendations only if they aligned with their personal health beliefs. Their limited language proficiency affected their ability to access, understand, and evaluate menopause-related information and coupled with culturally influenced perceptions about health, reduced their ability to use and benefit from menopause-related health information.

Individual health literacy skills of accessing, understanding, evaluating and using health-related information are facilitated by a health care system that understands and acts upon the interrelated factors influencing health literacy. A systematic review of experiences among immigrant and refugee women in accessing sexual and reproductive health care in Australia [34] found that difficulties navigating the health care system including processes such as arranging appointments and lack of multilingual resources were barriers in accessing care and information. Similarly, the Vietnamese-born women in this study were unable to find menopause-related health information in their language, needed help from family members' proficient in English to navigate the health care system and respect for authority prevented them from asking health care professionals questions about menopausal health.

# Implications for policy, practice and research

Our findings suggest that Vietnamese-born women perceive menopause as a natural event and therefore rarely consult authoritative sources about menopause. As a result, they may miss out on health promoting opportunities to ensure optimal health in later life.

Access to health information in relevant community languages is needed to improve immigrant women's knowledge about peri-menopausal and postmenopausal health. Resources should be developed in consultation with stakeholders from the community, provided in a variety of mediums including written, visual and auditory, and promoted through public awareness campaigns.

Health care practitioners are in an ideal position to actively screen and discuss health behaviour and make recommendations to improve health outcomes in later life. Research investigating barriers and enablers for health care practitioners to provide menopause-related health care which is responsive to immigrant women's circumstances and needs is essential to inform health care policies and practice.

## List Of Abbreviations

AUD—Australian Dollar

GP—General Practitioner

## Declarations

## Ethics approval and consent to participate

Participation in the study was voluntary. All participants provided written consent before the interview. The research project was approved by the Monash University Human Research Ethics Committee (Project number 8128)

## Consent for publication

Not applicable.

## Availability of data and materials

The dataset used and/or analysed during the current study are available from the corresponding author on request.

## Competing interests

The authors declare that they have no competing interests.

# Funding

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## Authors' contributions

KS, KH, JF contributed to the study design. KS and TN contributed to the participant recruitment, and interviews. KS contributes to the data transcription, data analysis, interpretation of results, manuscript write up and management of the study. KH and JF contributed to data analysis, interpretation of results, manuscript write-up and revision of the manuscript. All authors read and approved the final manuscript.

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## Tables

### Table 1: Participants’ socio-demographic characteristics

	Women (n = 12)
<b>Age group</b>	
45-49	3
50-54	2
55-60	7
<b>Menopausal status</b>	
Peri-menopausal	3
Postmenopausal	9
Average age at menopause	48
<b>Marital status</b>	
Never married	1
Married	6
Widowed	1
Divorced/separated	4
<b>Level of completed education</b>	
Primary School	7
High School	2
Tertiary/university	3
<b>Employment</b>	
Employed (casual only)	3
Home duties	9
<b>Years in Australia</b>	
1-10	3
11-20	2
21-30	5
> 30	2

**Table 2: Individual Participant Characteristics (N = 12)**

Pseudo-nym	Age range	Menopausal status	Marital status	Year of Migration	Interview conducted with bilingual researcher	Educational level	Paid Employment
Thi	45-49	Peri-menopausal	Married	1998	Yes	Year 7	No
Tara	50-54	Post-menopausal	Divorced	1995	No	Complete High School	No
Hanh	55-60	Post-menopausal	Divorced	1998	No	Bachelor in Pharmacy (Vietnam)	Yes-casual factory worker
Hien	55-60	Post-menopausal	Married	2015	Yes	Bachelor in Finance (Vietnam)	No
Linh	55-60	Post-menopausal	Married	2014	Yes	Completed High School	No
Tien	55-60	Post-menopausal	Married	2014	Yes	Primary School	No
Hanna	55-60	Post-menopausal	Widowed	1991	No	Bachelor in Literature in Vietnam Cert IV in aged care in Australia	Yes – casual in Aged Care
Lani	55-60	Post-menopausal	Divorced	1980	No	Grade 2 in Vietnam	No
Mingh	50-54	Post-menopausal	Separated	1999	Yes	Year 9	Yes- casual Vegetable packing
Hung	55-60	Post-menopausal	Divorced	1987	Yes	Year 6	No
Xuan	45-49	Peri-menopausal	Married	1988	Yes	Year 9	No

Quy	45-49	Peri- menopausal	Married	1995	Yes	Year 10	No
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