Communication and health literacy in Dien Bien Province, Vietnam: experiences and perceptions of primary health care professionals and ethnic minority women

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Declaration

The work presented in this thesis is, to the best of my knowledge and belief, original except as acknowledged in the text. I hereby declare that I have not submitted this material, either in full or in part, for a degree at this or any other institution.

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Abstract

Background: Patient-centred care is care that is respectful of and responsive to individual patient preferences, needs, and values, and ensures that patient values guide all clinical decisions. It is a generally recognised element of high quality health care. A key component of patient-centred care is patient-centred communication and information provision, which are especially vital in resource-poor settings where people may have little recourse for sourcing accurate health information. An important element of improving patient-centred communication in these settings is improving health literacy. However, there has been little research about patient-centred communication and health literacy in low and middle-income countries, such as Vietnam. Vietnam has made impressive progress over the past few decades in improving maternal and child health, but significant and continuing inequities in health outcomes persists. Ethnic minorities experience maternal, infant, and child mortality at higher rates than the population as a whole, and are less likely to access antenatal care and to give birth in a health facility. Dien Bien Province, a remote, rural province, has a majority ethnic minority population, and is one of the poorest provinces in the country. Low health literacy and poor communication between health care professionals and ethnic minority patients are concerns for the Provincial Health Service, which has previously collaborated with the University of Sydney to deliver maternal and child health workshops in the province.

Aims: The aim of this thesis is to investigate the communication experiences, and the factors underlying communication, between ethnic minority women with limited health literacy and primary health care professionals in the maternal health setting in

Dien Bien Province, Vietnam. Paper 1 (Chapter 3) investigates how ethnic minority women utilise maternal health services, and the factors that influence their decisions to seek and not seek skilled health care during pregnancy and childbirth. Papers 2 (Chapter 4) and 3 (Chapter 5) explore the perceptions and experiences of primary health care professionals and ethnic minority women around patient-provider interaction and consider the factors that influence patient-provider communication. Paper 4 (Chapter 6) examines the nature of maternal and collective health literacy in ethnic minority communities and explores how ethnic minority women understand and use health information in order to care for and make health decisions for themselves and their children.

Methods: This is a qualitative study, using a focused ethnography methodology. Data was collected in five communes of Tuan Giao District in Dien Bien Province. Data was generated from in-depth interviews with 22 primary health care professionals and two key informants, and focus group discussions with 42 ethnic minority women (pregnant women and mothers and grandmothers of children under five years old). Data was analysed using thematic analysis methods, including Framework Analysis.

Key findings: Paper 1 found that primary health services were technically available and accessible to ethnic minority women, however these services were likely to be underutilised, particularly during childbirth, because of community and health professionals' perceptions of those services as being of low quality. Paper 2 showed that while health professionals saw communication as an important part of their role, their overall perception of communication was as a one-way path for delivering health information, and they rarely acknowledged the interactive nature of communication.

They perceived communication problems to be due to patient factors, rather than reflecting on the suitability of the information being delivered, or their own abilities as communicators, placing the burden for improving communication on patients. Paper 3 found that ethnic minority women experienced communication with health professionals as didactic and paternalistic, with health professionals often relying on written information over interpersonal communication. The women faced challenges when interacting with health professionals, and interpreted health information in diverse ways. Paper 4 utilised the concept of distributed health literacy to describe the nature of maternal health literacy in Dien Bien Province. The findings aligned with the four areas of distributed health literacy, with ethnic minority women drawing on family and social networks to share knowledge and understanding, assess and evaluate information, communicate with health professionals, and support decision-making. This paper also extended the distributed health literacy model to consider how family and social networks were involved in non-supportive decision-making, which was not aligned with women's preferences and had the potential to impact negatively on women and children's health. Chapter 7 draws the findings of the four papers together using the PEN-3 model, a culture-centred health promotion framework, in order to make recommendations for future health literacy and communication interventions in Dien Bien Province.

Conclusion: This thesis adds new knowledge to the limited amount of research exploring health literacy and patient-centred communication in low and middle-income countries, and in Vietnam specifically. This research provides an in-depth exploration of the experiences and perceptions of ethnic minority women and health professionals, and applies a health literacy lens to thinking about how these groups communicate with each other, and how communication can be improved. Three main areas for improvement were identified. Firstly, communication is perceived as important by health professionals, although it is often paternalistic in practice. A health literacy approach to communication training for both health professionals and community members, focused on oral communication and the verbal exchange, can complement written information that is already being utilised. Secondly, the physical and social infrastructure for community-based health communication and health literacy strengthening activities already exists, however consultation with communities, particularly women, about the content, delivery, and timing of these activities could be improved to increase the effectiveness of community-based health communication. Thirdly, family and social networks of ethnic minority women should be more involved in health communication and health literacy strengthening activities in order to enhance distributed health literacy within families and communities.

The dominant health professional-centred communication style does not provide ethnic minority women with opportunities to become better informed about their health and the health of their children. However, there is evidence to suggest that patient-centred approaches to communication can be successfully implemented in Vietnam, and that patients often do not conform to cultural stereotypes suggesting that they prefer to be passive in their interactions with health professionals. Adopting more patient-centred approaches to health communication with women from diverse ethnic backgrounds in Vietnam could help to increase the use of maternal health services and reduce inequities in maternal health outcomes.

List of Included Publications

The publications which comprise this thesis are listed below:

1. McKinn S, Duong TL, Foster K, McCaffery K. A qualitative analysis of factors that influence ethnic minority women in Vietnam to (not) seek maternal health care. BMC Pregnancy and Childbirth, under review.
2. McKinn S, Duong TL, Foster K, McCaffery K. Communication between health workers and ethnic minorities in Vietnam. Health Literacy Research and Practice 2017; 1(4): e163-72. doi: 10.3928/24748307-20170629-01
3. McKinn S, Duong TL, Foster K, McCaffery K. 'I do want to ask, but I can't speak': A qualitative study of ethnic minority women's experiences of communicating with primary health care professionals in remote, rural Vietnam. International Journal for Equity in Health 2017; 16:190. doi: 10.1186/s12939-017-0687-7
4. McKinn S, Duong TL, Foster K, McCaffery K. Distributed health literacy in the maternal health context in Vietnam. Health Literacy Research and Practice 2019;3(1):e31-e42. doi: 10.3928/24748307-20190102-01

Author's Attribution Statement

I, Shannon McKinn (SM), carried out this work between October 2014 and September 2018 at The University of Sydney's School of Public Health.

I was responsible for coordinating this research, and the four papers presented in this thesis, under the guidance of my primary supervisor Professor Kirsten McCaffery (KM) and associate supervisor Professor Kirsty Foster (KF). Miss Duong Thuy Linh (DTL) also contributed to this work. The research was conducted with the support of the Hoc Mai Foundation at The University of Sydney, and I received PhD funding from the Sydney Medical School Foundation.

I am first author on all four papers included in this thesis, reflecting my substantial contribution to all aspects of the research, including intellectual input into the study design, development of study materials, obtaining ethics approval, coordinating fieldwork and participant recruitment, collecting and managing data, planning and conducting the analysis, and writing and revising the manuscripts for publication.

The specific contribution that I, and all co-authors, made are listed below for each chapter.

Chapter 1. Introduction: SM wrote the chapter, with critical feedback from KF and KM.

Chapter 2. Research design and methodology: SM wrote the chapter, with critical feedback from KF and KM.

Chapter 3. A qualitative analysis of factors that influence ethnic minority women in Vietnam to (not) seek maternal health care: SM, KF, and KM conceived the study, and contributed to study design. SM and DTL collected the data. SM, KF, and KM analysed the data. SM, DTL, KF, and KM interpreted the findings. SM drafted the manuscript. All authors critically revised the manuscript. All authors read and approved the final manuscript.

Chapter 4. Communication between health workers and ethnic minorities in Vietnam: SM, KF, and KM conceived the study, and contributed to study design. SM and DTL collected the data. SM, KF, and KM analysed the data. SM, DTL, KF, and KM interpreted the findings. SM drafted the manuscript. All authors critically revised the manuscript. All authors read and approved the final manuscript.

Chapter 5. 'I do want to ask, but I can't speak': A qualitative study of ethnic minority women's experiences of communicating with primary health care professionals in remote, rural Vietnam: SM, KF, and KM conceived the study, and contributed to study design. SM and DTL collected the data. SM, KF, and KM analysed the data. SM, DTL, KF, and KM interpreted the findings. SM drafted the manuscript. All authors critically revised the manuscript. All authors read and approved the final manuscript.

Chapter 6. Distributed health literacy in the maternal health context in Vietnam: SM, KF, and KM conceived the study, and contributed to study design. SM and DTL collected the data. SM, KF, and KM analysed the data. SM, DTL, KF, and KM interpreted the findings. SM drafted the manuscript. All authors critically revised the manuscript. All authors read and approved the final manuscript.

Chapter 7. Discussion and conclusion: SM wrote the chapter, with critical feedback from KF and KM.

In addition to the statements above, in the cases where I am not the corresponding author, permission to include the published materials in this thesis has been granted by the corresponding author.

Shannon McKinn

27 September, 2018

As supervisor for the candidature upon which this thesis is based, I confirm that the authorship attribution statements above are correct.

Kirsten McCaffery

27 September, 2018

Ethical Approval

Ethical approval for this study was obtained through the University of Sydney Human Research Ethics Committee (Project No. 2015/251). Each participant gave written or oral consent before participating in an interview or focus group. All participant information sheets, invitations, and consent forms were translated into Vietnamese, and independently certified.

The ethical approval letter is provided in Appendix A.

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https://open.spotify.com/user/1248955153/playlist/5cKu4tDctFAxODnPFIQh3y?si=iYGQdwZbQI-w-2Fz_2M2IA

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PhD now. And to Mathew, for indulging my night owl tendencies, keeping me fed, encouraging me, and waiting patiently – thank you.

Abbreviations

ANC: Antenatal care

DBP: Dien Bien Province

EMW: Ethnic minority women

GFG: Grandmothers focus group

HBR: Home based record

HLQ: Health literacy questionnaire

HLS-EU-Q: European Health Literacy Survey Questionnaire

HLS-EU-Asia-Q: Health Literacy Survey Questionnaire in Asia

HP: Health professional

HREC: Human Research Ethics Committee

KAB: Knowledge, attitudes, and beliefs

LMICs: Low and middle-income countries

MCH: Maternal and child health

MDG: Millennium Development Goal

MFG: Mixed focus group

MMR: Maternal mortality ratio

MU5FG: Mothers of children under five years focus group

PCC: Patient-centred communication

PIS: Participant Information Statement

PWFG:	Pregnant women focus group
SDG:	Sustainable Development Goal
UNFPA:	United Nations Population Fund
USD:	US dollar
VHW:	Village health worker
VWU:	Vietnamese Women’s Union

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Chapter 1. Introduction

1.1 Health literacy

Health literacy emerged as a concept during the 1970s [1] and evolved out of the body of research investigating the relationships between literacy, health status, and health outcomes that shows that low levels of reading literacy are associated with poorer health outcomes, lower health knowledge, and various adverse health outcomes [2]. Limited health literacy has been consistently associated with experiencing more hospitalisations; greater use of emergency care; lower screening utilisation; poorer ability to demonstrate appropriate medicine taking; poorer ability to interpret labels and health messages; and, poorer overall health status and higher mortality rates among the elderly [3]. In the past decade particularly, there has been an explosion of interest in health literacy research [4]. Much of this research has been focused around debates about how to best conceptualise, define, and measure health literacy [5–10], as well as studies focused on measuring health literacy in specific populations, and investigating associations between health literacy and various health outcomes [4]. The debate around how to best define and measure health literacy has resulted in evolving definitions that have not been consistently applied [5], as well as a proliferation of assessment and measurement tools [9,11].

Most definitions of health literacy share core elements that include the cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand, and use information to make decisions and in ways which will impact their health [4,12,13]. These skills are observable, vary between individuals [4], and may also vary within an individual according to situation and context [14,15]. They range from basic to complex, and demonstrate hierarchical levels of health literacy that have been classified by Nutbeam [13] as functional, interactive/communicative and critical health literacy. These categories will be defined further in the following paragraphs.

Initial conceptualisations of health literacy focused on reading and numeracy in individuals, and can be categorised as being concerned with functional health literacy [13]: 'basic level skills that are sufficient for individuals to obtain relevant health information (…) and be able to apply that knowledge to a range of prescribed activities' [4] (p.2). Many of the initial tools developed to measure health literacy focus on reading, numeracy, and comprehension skills. These include commonly used tools such as the Test of Functional Health Literacy in Adults (TOHFLA) [16], Rapid Estimate of Adult Literacy in Medicine (REALM) [17], and the Newest Vital Sign [18], which suggest that having adequate health literacy means possessing the ability to read and recognise medical vocabulary, and complete tasks such as understanding labels. These measures have been developed for use as screening tools for clinical practice [4], prompting the perception of inadequate health literacy as a risk factor for poor health outcomes.

While potentially useful in clinical practice, functional measures have been found to be insufficient in discriminating between relative differences in health literacy in populations, and assessing changes in health literacy in individuals [4], as well as being criticised for being only partial measures, that do not fully reflect the underlying conceptualisation of health literacy [19–21]. Subsequently, researchers have looked to expand our abilities to assess and measure health literacy based on multidimensional conceptualisations of health literacy, moving beyond the individual in the clinical setting to a public health approach that includes the community or population level [22]. These measures include, but are not limited to, the All Aspects of Health Literacy Scale (AAHLS) [23], the Health Literacy Questionnaire (HLQ) [24–26], the Conversational Health Literacy Assessment Tool (CHAT) [27], and the European Health Literacy Survey Questionnaire (HLS-EU-Q) [28,29]. Several of these multi-dimensional measurement tools have been specifically designed and adapted to work across cultural contexts. The HLQ has been translated into several Asian and African languages; HLS-EU-Q has been adapted and validated for use in Asian countries (HLS-EU-Asia-Q) [30], and has also been deemed suitable for determining health literacy in people with limited literacy [31].

Interactive/communicative health literacy encompasses 'skills that enable individuals to extract health information and derive meaning from different forms of communication, to apply new information to changing circumstances, and engage in interactions with others to extend the information available and make decisions' [4] (p.2). Critical health literacy involves the 'most advanced skills which can be applied to critically analyse information from a wide range of sources, and information relating to a greater range of health determinants, and to use this information to exert greater control over life events and situations that impact on health' [4] (p.2). The progressive tiers of health literacy and their associated skills allow for increasing autonomy and personal and community empowerment [13] and reflect the public health conceptualisation of health literacy as a modifiable personal and community/population asset, rather than a set of capacities/deficits found in an individual [32,33].

1.1.1 Family and social context models of health literacy

There are several asset models of health literacy that move beyond the individual to the family and wider social contexts. It has been suggested that the social context of health literacy may be particularly important in cultural contexts with a communal rather than an individualistic focus, and for addressing health inequities in vulnerable populations [34]. Several studies have extended their focus beyond the individual by examining and measuring health literacy in caregiving dyads, often in the context of specific health conditions [35–37]. The distributed health literacy model extends further into the individual's social context to explore how the individual draws upon the health literacy skills and practices of those in their family and social networks to support health outcomes and behaviours [38]. Edwards and colleagues [38] found that people with chronic conditions drew on the health literacy skills of others, 'health literacy mediators', in order to seek, understand, and use health information, communicate with health professionals, and make decisions about their health, demonstrating the potential of distributed health literacy for supporting people to manage their conditions more effectively.

Similarly, maternal health literacy extends beyond the individual, however rather than exploring how the individual draws upon their social context to support health outcomes and behaviour, maternal health literacy is concerned with how individual mothers' health literacy impacts the health of their child(ren). Maternal health literacy broadens the definition of health literacy from the cognitive and social skills which determine the motivation and ability of women to access, understand, and use information in order to promote and maintain good health in the individual to promoting and maintaining good health of both mother and child [39]. Maternal health literacy is important because pregnancy is often a time when women's engagement with the health system increases. Women encounter large amounts of information during pregnancy and motherhood, whether through formal health communication or informally through family and social networks [39]. These increased information-related demands may require additional support from the health system and health professionals. For example, Lori et al. [40] conducted focus groups with pregnant women attending antenatal care in Ghana and concluded that the women exhibited low health literacy in the antenatal context as they were unable to correctly interpret and operationalise the information that they received during antenatal care visits, highlighting the need for more appropriate delivery of health information tailored to the patients' health needs [40]. Research conducted in India has found maternal health literacy to be associated with children's vaccination [41] and nutritional status [42] and it has been posited that significant, rapid improvement in maternal health literacy is achievable with appropriate and targeted interventions [43,44], even when functional health literacy skills are weak [44]. Improved maternal health literacy can empower women to address factors that impact outcomes for both themselves and their children [43–45].

1.1.2 Health literacy research in low and middle-income country contexts

In 2014, the WHO released a Health Literacy Toolkit for low and middle-income countries (LMICs) to guide governments in assessing and developing their health literacy responsiveness, and assist in intervention and policy development [20,46]. In 2016, the Shanghai Declaration, which established a framework for promoting health within the 2030 Agenda for Sustainable Development [47], highlighted health literacy as a key priority for empowering citizens, enabling engagement in collective health promotion action, and driving equity. The Shanghai Declaration makes several commitments around investing in health literacy and developing strategies for strengthening health literacy in all populations [48]. Despite this global agenda, there has been relatively little published research on health literacy in LMICs, although the amount of research in non-English speaking and non-European contexts is growing, particularly in Asia. This growth has been driven by research occurring in China, Taiwan, South Korea, and Japan [49–66] (all considered high-income countries, apart from China which is upper middle-income [67]). The majority of this research has focused on developing and validating population specific measures of health literacy and conducting cross-sectional measurement and association studies. There are also qualitative studies that attempt to assess health literacy in LMICs; these often use a health literacy framework to explore knowledge, attitudes, beliefs, and behaviours around specific health conditions [40,68,69].

Research in settings where literacy and numeracy levels are limited present a challenge to the traditional functional health literacy measurement tools. It has also been argued that many quantitative measures of health literacy prioritise a Western, biomedical viewpoint of health and illness, ignoring cultural elements of health literacy and the intersection of health literacy with cultural and linguistic competency [70,71]. These critiques posit that conceptualisations of health literacy that neglect culturally specific knowledge and elements conflate a lack of recognition of biomedical constructs of health with low health literacy and lack of health knowledge, absent of cultural context. A recent mixed methods study conducted in Laos demonstrated the importance of context in health literacy research. The HLS-EU-Asia-Q questionnaire (an adaptation of the HLS-EU-Q tool which has been validated in six Asian countries [30]) was conducted with university students, complemented with in-depth interviews. The questionnaire results showed that over 90% of students had less than sufficient health literacy. However, the interview responses suggested that students were able to demonstrate competence in accessing, understanding, assessing, and applying health information within their specific social context, where trust in the health system was low and many services were perceived to be of low quality and limited reliability. The authors concluded that while the measurement tool used was considered to be comprehensive and multidimensional, the results suggested that the measure did not sufficiently consider the health system and contextual factors that influence health literacy, and that consideration of such factors will be 'the most crucial component' [69] (p.367) in continuing health literacy research in diverse and developing regions [69].

1.1.3 Health literacy and communication

Health communication is relevant 'for virtually every aspect of health and well-being' [72] (p.247). The patient-health professional interaction is an essential pillar of health care, not only in terms of information exchange but also in terms of interpersonal factors that impact the patient-provider relationship. Conceptual models of the causal pathway between health literacy and health outcomes have suggested that improving communication (i.e. the patient-provider interaction) may mediate the effect of limited health literacy [73,74], as shown in Figure 1.1. This relationship has also been suggested by empirical research [75]. Street et. al [76] put forward seven pathways through which the patient-provider interaction can lead to improved health outcomes. These include increased access to care, greater patient knowledge and shared understanding, higher quality medical decisions (that is, informed, concordant with patient values, and clinically sound), enhanced therapeutic alliances, increased social support, patient agency and empowerment, and better management of emotions. Several of these pathways (e.g. patient knowledge and understanding, decision-making, patient agency and empowerment) align with the cognitive and social skills that are considered when health literacy is discussed.

Figure 1.1 Causal pathways between limited health literacy and health outcomes

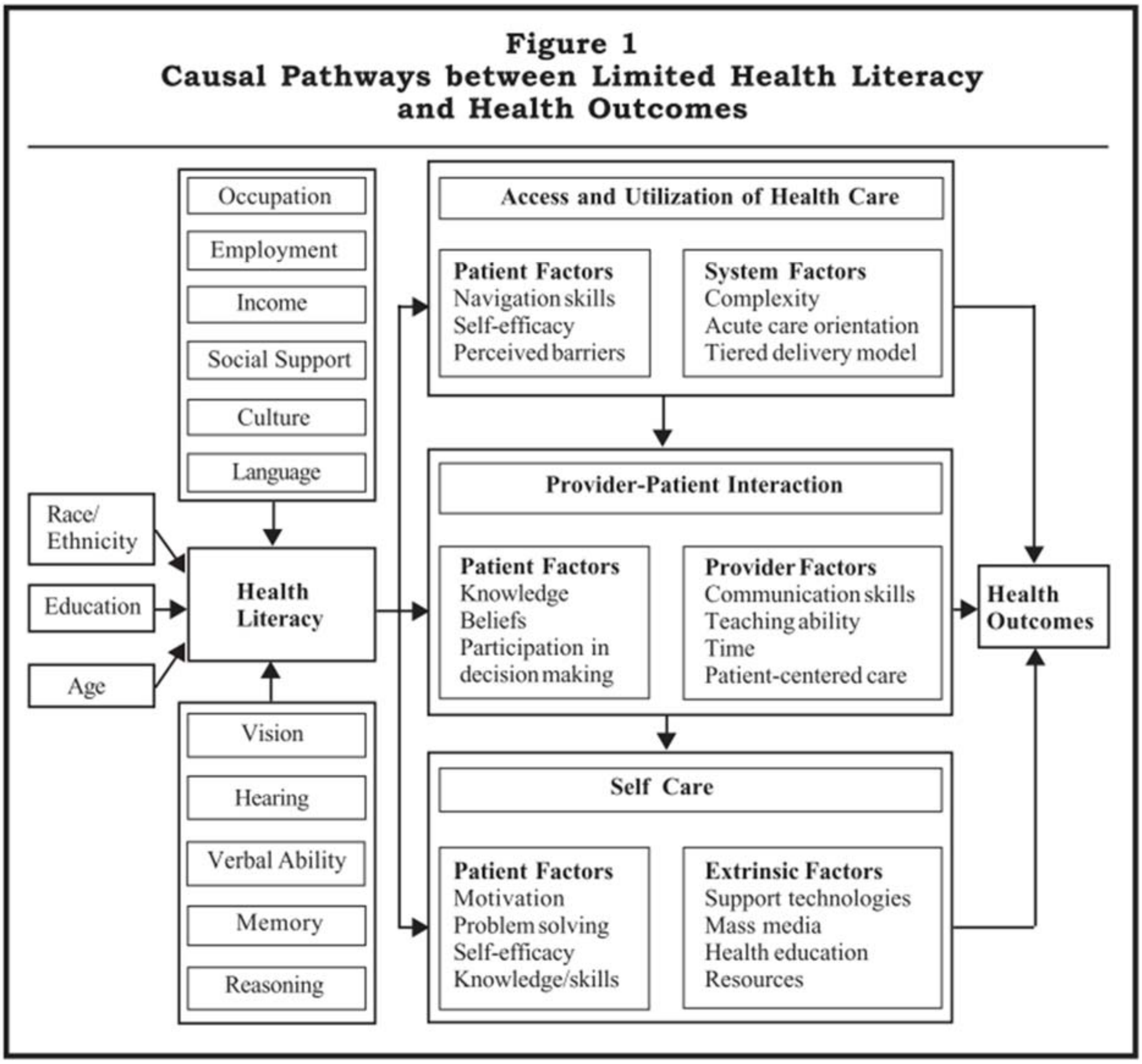

Figure 'Causal pathways between limited health literacy and health outcomes' by Paasche-Orlow and Wolf [73] is used with permission from PNG Publications, 26 Sept 2018.

Research in high-income countries has found an association between low health literacy and experiencing complex and varied communication difficulties with health professionals [77–79], experiencing less patient-centred communication [75], and distinctive patterns of question asking compared to patients with higher health literacy scores [80]; both in the types of questions, and the number of questions asked

[81]. Several of these studies in high-income countries are based on patients' perceptions about the quality of their interaction with health professionals. In one study, patients who were classified as having inadequate health literacy were more likely to rate the quality and clarity of their physicians' communication poorly, particularly when it came to perceived responsiveness to patient concerns, and explanation of care processes [78]. Another study conducted in Taiwan found that patient's perceived empathy from their physician interacted with the relationship between the patient's health literacy level, and their understanding of health information, suggesting that more empathy from health professionals helped patients to understand information regardless of their low health literacy level, while low empathy appeared to negatively affect patients' understanding [82]. Qualitative research has also identified patient/health professional relationships and communication as critical elements for enhancing health literacy, and highlighted the importance of the patient-provider relationship and a focus on patient-centredness for both identifying and addressing health literacy needs [83]. Consistent with the general lack of health literacy research in LMICs, there is scarce research in LMICs that looks at associations between health literacy and quality of communication with health professionals.

1.2 Patient-centred communication and its application in low and middle-income countries

Patient-centred care is defined by the Institute of Medicine as care that is respectful of and responsive to individual patient preferences, needs, and values and ensures that patient values guide all clinical decisions [84]. Patient-centred care is a generally recognised element of high-quality health care. At the global level, the WHO has formally adopted a framework on integrated, people-centred health services, urging member states to reorient their health systems by adopting people-centred strategies in order to achieve the health-related Sustainable Development Goals (SDGs) [85,86]. In Australia, consumer-centred care is the first of three dimensions included in the *Australian Safety and Quality Framework for Healthcare* as being crucial to providing high-quality and safe healthcare [87]. One of the key components of patient-centred care is communication and information provision [84,87]. Epstein et al. provide a four-part operational definition of patient-centred communication: 1) eliciting and understanding the patient's perspective; 2) understanding the patient within their psychosocial context; 3) reaching a shared understanding of the problem and its treatment with the patient; 4) sharing power and responsibility with patients by involving them in decision-making [88].

Patient-centred communication (PCC) and information provision are especially vital in resource-poor settings where people may have little recourse for sourcing accurate health information, beyond their immediate community and the traditional keepers of health knowledge. An important element of improving PCC in these settings may be related to improving health literacy. However, there has been limited research about PCC in developing and non-European/non-English speaking settings, and whether PCC is acceptable and appropriate to these different cultural frameworks [89–99].

The little research that has been done in Asian settings has shown that PCC can mean different things in different contexts. There is a high degree of complexity and heterogeneity in patient-provider communication across different contexts, and local culture should be considered in order to understand these interactions [99]. Research in rural Nepal showed that patients in developing settings may have different needs based on their cultural framework and local preferences compared to patients in 'Western' settings. The rural hospital patients who participated were less concerned with sharing power and control over the consultation and decision-making responsibility, and did not want to seek information outside of the doctor's advice. However, like 'Western' patients, they placed high import on being fully informed, receiving adequate consultation time and being treated respectfully by the doctor [89]. The findings regarding the importance of being informed and being treated respectfully were echoed in a nationally representative survey on women's satisfaction with maternity care services [100]. The lack of concern with existing power structures may be reflective of the hierarchical structure of Nepalese society [89,90,101], a characteristic it shares with many other Asian cultures. This has implications for the adoption of PCC in these settings.

The literature on patient-provider communication in East Asian countries indicated that asymmetrical relationships between patients and health professionals is the norm. A doctor-centred communication style is common, and has been shown to have negative psychosocial outcomes for patients [99]. The strong sense of social hierarchy, and concern about upsetting social norms means that there is more value placed on subtle and non-verbal forms of communication [98,102] in Asian cultures, and less emphasis on individual autonomy in medical decision-making; household and community input into clinical decisions can be equally if not more important than the individual's [98,99,103]. Patients may also be less interested in power sharing with their doctor and decision-making involvement, although this varies both across and within countries [95,104,105], and has been found to be associated with education level (highly educated patients being more aware of power sharing) [104].

Research conducted in Indonesia showed that patients were hesitant to ask their doctor questions, partly due to the social distance and education gap between themselves and the doctor. Over 50% of participants were worried that their questions were not important, and that it was not their place to ask questions of their healthcare provider [91]. Qualitative studies have shown that although Indonesian patients desired a more patient-centred approach from their doctor, the reality was that communication was frequently one-way and paternalistic in style, and reinforcing of the social distance between patients and their doctors. Barriers to PCC in this setting included that neither patients nor doctors were prepared for a participatory communication style [92,93]. Communication coaching of Indonesian women in a reproductive health setting showed an improvement in active communication, with coached women more likely to ask questions and express concerns during their consultation [91].

This suggests that education in PCC and health literacy may be beneficial to both patients and health professionals in other Southeast Asian settings with similar cultural frameworks; however this education should be informed by participants' cultural preferences. At the same time, variation of individual preferences within cultures needs to be considered, while avoiding cultural stereotypes. A recent study into desired family involvement in medical decision-making across seven countries including five Asian countries (China, Malaysia, South Korea, India, Thailand) found meaningful numbers of participants in all countries who preferred individual involvement over family involvement, countering the availing cultural assumption [106].

1.3 Research context: maternal health

Every year over 200 million women become pregnant and about 140 million babies are born [107]. As argued in the 2016 *Lancet* series on maternal health, these numbers alone demonstrate that maternal health is a vital worldwide concern [107]. A woman's lifetime risk of dying due to pregnancy or childbirth is strongly related to where she lives [108]. Worldwide, a woman's risk ranges from 3 maternal deaths per 100,000 live births in Finland to 1360 maternal deaths per 100,000 live births in Sierra Leone [109]. Reducing maternal mortality ratios (MMR) was a key focus of the Millennium Development Goals (MDGs), and this continues to be a focus of the SDGs, with a global target of no more than 70 maternal deaths per 100,000 live births by 2030 (and no more than 140 per 100,000 in any one country) [110,111]. However, future progress continues to be stymied in many low-income countries due to weak health systems, high fertility, and poor data availability [108]. Strengthening maternal health care at the primary care level has been shown to be an effective way of reducing MMR in many countries [112–114], including Vietnam [115].

1.4 Research context: Dien Bien Province, Vietnam

Over the past three decades, Vietnam has made impressive progress in improving health and development indicators and outcomes. Maternal, child and infant mortality rates have dropped; Vietnam was one of several 'success factor' countries for MDG 5 (improve maternal health) [115]. However, significant ethnic and regional inequities remain an important and persistent issue [116,117]. There are 54 officially recognised ethnic groups in Vietnam. The largest group, the Kinh (ethnic Vietnamese) make up 86% of the population of the country. The remaining ethnic minority groups, with the exception of the Hoa Chinese, are more likely to be poor, and to live in remote, mountainous, and rural areas. Research has shown that ethnic minority groups are at increased risk of experiencing neonatal mortality, stillbirth, childhood malnutrition, stunting [118], and hygiene and sanitation related diseases [119].

Dien Bien Province (DBP) is a small, mountainous province with a population of about 555,000 people. Approximately 80% of those people belong to an ethnic minority group; outside of the provincial capital of Dien Bien Phu, that proportion increases. DBP is located in the northwest corner of Vietnam, and shares borders with Laos and China (Figure 1.2). Although sourcing accurate province level mortality data is problematic due to underreporting of events that occur outside of health facilities, the Vietnamese government's figures show that women and children in DBP are dying at rates much higher than the national rates, and the rates in urban centres such as Hanoi and Ho Chi Minh City. One Vietnamese government report on progress towards achieving the MDGs reported the 2010 MMR in DBP as 676 maternal deaths per 100,000 live births in women aged 15-49: 24 times the reported rate for the province with the lowest MMR (24 per 100,000) [116]. A joint report from international health and development agencies on global maternal mortality trends estimated a national MMR of 54 maternal deaths per 100,000 live births for the same year [120]. One driver of maternal and child mortality in DBP is low levels of health service utilisation by ethnic minority people [121].

Figure 1.2 Map of Vietnam

'Vietnamese Provinces Map' by User:Waerth / Wikimedia Commons / PUBLIC DOMAIN

Ethnic minority women in Vietnam are less likely to access antenatal care, give birth with a skilled birth attendant present (either at home or in a health facility), or seek medical care when their child displays signs of illness, compared to Kinh women [116,117,121–127]. There is evidence from successive Multiple Indicator Cluster Surveys that inequity in health service utilisation has grown along ethnic lines, and that this pattern is likely to continue [117,123,127]. Ethnic minority status intersects with multiple factors that are associated with a lower level of health care utilisation, including physical access factors such as lack of transportation, remoteness, difficult terrain [122,128,129], lower maternal education levels [122,130], and the continued practice of traditional customs such as giving birth in the family home [128]. It is still unclear how these factors interact to affect access to maternal healthcare services (antenatal care and skilled attendance at birth), however ethnic minority status has been found to be a significant determinant of maternal healthcare utilisation after controlling for household income and maternal education [123]. While ethnic minority groups are often touted by the government as an example of the rich cultural diversity of Vietnam, historically they have been the target of government reforms aimed at improving living standards while sidelining and actively discouraging traditional practices, which are perceived to contribute to poverty and disease [118,131,132], and depicting ethnic minorities as 'backwards' [132].

Improving maternal and child health is a priority for the DBP Provincial Health Service. Over the past decade, teams from the University of Sydney have worked with the DBP Provincial Health Service, together with the Vietnamese Women's Union (VWU), to deliver maternal and child health workshops for health professionals and community leaders, focused on skills-based and communication training [133,134]. Over the course of this collaboration, limited health literacy in the community and poor communication between health professionals and ethnic minority people (particularly pregnant women and mothers of young children) emerged as key concerns that were perceived to be impacting on quality of care, and low levels of health service utilisation. It was determined that research should be conducted exploring these issues in the primary care context, in an area of the Province other than the provincial capital, i.e. an area with less immediate access to the provincial level health services available in Dien Bien Phu. Tuan Giao District, a two-hour (80 km) drive from Dien Bien Phu, was chosen as the study location, on the advice of local collaborators.

Tuan Giao is divided into 19 communes, and has a total population of approximately 82,000 people. Most residents of Tuan Giao are from the Thai ethnic minority group [135], with smaller populations of Hmong, Kinh, Khang, and Kho Mu people. Tuan Giao District was chosen because of its remote location relative to provincial health services, the predominantly ethnic minority population living in distinct communities, and the relative accessibility of several Hmong communes and villages compared to other districts. Tuan Giao District was also recommended as it does not border Laos or China, thereby limiting the risk of inflaming national security sensitivities.

1.4.1 Barriers to patient-centred communication

In the multi-ethnic context of DBP, there are several potential culture-related barriers to optimal communication between ethnic minority patients and health professionals. Schouten and Meeuwesen identified five predictors of culture-related communication problems including: 1) cultural differences in explanatory models of health and illness; 2) differences in cultural values; 3) cultural differences in patient preferences for the doctor-patient relationship; 4) racism/perceptual biases; 5) linguistic barriers [136] . These problems are likely to be pertinent due to a large ethnic minority population, linguistic and cultural diversity, and discordance between patient and healthcare provider ethnicities, as well as low literacy rates and household incomes [135]. Discordance between patient and provider ethnicities, as well as education levels, may cause discrepancies between patient and provider explanatory models; the personal/cultural framework that people use to make sense of their experience of an illness and its treatment [137], leading to gaps in patient-provider communication. Previous research demonstrates that ethnic minority people in Vietnam do encounter interpersonal and communication barriers to accessing health services, including discrimination, poor attitudes from health professionals, and lack of culturally sensitive services [121,128,135,138,139]. These factors also impact the quality of the care that ethnic minority people receive, and the quality and nature of their interactions with health professionals.

Effective health communication is also hampered at both the individual and community level by the top-down, didactic, passively received (i.e. one way) communication style that is typically favoured in formal communication in Vietnam. [140]. This style has been found to lead to inappropriate and context-unadjusted communication and the exclusion of specific groups, including ethnic minority people. A stakeholder study for rural hygiene and sanitation promotion among ethnic minority groups in northern Vietnam found that progress was severely constrained despite highly supportive policy frameworks, and two of the four main barriers identified were communication based. Firstly, the almost exclusive utilisation of one-way, passive, information-based health promotion methods; and secondly, health promotion strategies were not adjusted for ethnic minority groups, and did not account for socio-economic differences, language barriers and different gender roles among ethnic minorities [141].

1.4.2 Health literacy research in Vietnam

To date, there appears to be just one peer-reviewed study published in English concerning population health literacy in Vietnam itself [30], although there are several studies focusing on various aspects of health literacy in Vietnamese immigrant populations in high-income countries [142–144]. This study validated the use of the European health literacy questionnaire (HLS-EU-Q47) in six Asian countries, including Vietnam. The validation study found that the instrument was valid and reliable for measuring health literacy in these countries, while cautioning that the sample used may not have been representative of the national population in several of the countries, including Vietnam [30]. This caveat is likely to be particularly relevant in areas with a large ethnic minority population. This measure (HLS-EU-Q47) has been used to compare health literacy at the population level in Taiwan and Vietnam, and found a high percentage (66.9%) of the Vietnamese population had limited health literacy. Health literacy level was also found to be significantly and positively associated with educational attainment and the ability to pay for medication [145].

Health literacy has not been measured at the population level in DBP; the ethnic and linguistic diversity of the population and relative lack of Vietnamese language and functional literacy skills among many ethnic minority people, particularly women [135], would present a significant challenge to such an undertaking. However, limited health literacy at the national level [145], high levels of poverty, low levels of educational attainment [135], and the aforementioned language and literacy limitations lead to the reasonable conclusion that the levels of health literacy in the community are low [146–148].

To summarise, DBP experiences comparatively high levels of infant, child and maternal mortality [116,135], and low levels of service utilisation among ethnic minorities [121]. There is persistent, significant and increasing inequity of health outcomes and service use along ethnic lines [117,123,127]. The DBP Public Health Service has identified poor communication (including language difficulties) and distrust arising from ethnic and cultural differences between health professionals and communities as problems; although no formal research into these issues has been conducted in DBP. The Vietnamese population in general has been found to have a high number of people with limited health literacy (66.9%) when measured using a multi-dimensional measurement tool (HLS-EU-Q47) [135]; due to demographic characteristics such as low literacy and educational attainment the proportion of those with limited health literacy in the ethnic minority population is likely to be higher than the general population. Patient-provider communication and information exchange in DBP is likely to be impacted by the top-down, hierarchical communication style that is traditionally favoured in Vietnam [140,141], particularly in unequal status relationships such as that between health professionals and ethnic minority patients, who are more likely to be poor, less educated, and have limited Vietnamese language skills [135].

1.5 Research gaps

Minimal research has been conducted exploring health literacy in LMICs generally and health literacy research has been largely limited in focus to functional health literacy in individuals, and not the community/collective level. There is only one peer-reviewed study published in English focusing on health literacy in Vietnam [30] and limited research conducted in Vietnam focusing on patient-provider communication. There has been no research conducted in Vietnam focusing on patient-provider communication with ethnic minorities in the maternal health setting, despite the recognised importance of maternal health and health education of new mothers; although there have been findings related to communication in studies looking more generally at quality of care and barriers to service access [121,128]. Finally, previous University of Sydney led interventions [149] in DBP have been conducted at the request of the DBP Public Health Service, with minimal formative research conducted in the target communities prior to intervention activities.

1.6 Aims of the thesis

This aim of this research is to investigate the communication experiences, and the factors underlying communication, between ethnic minority women with limited health literacy and primary health care professionals in the maternal and child health setting in DBP. These findings will be used to develop and support strategies to improve health professional communication with ethnic minority communities, and ultimately inform the development and delivery of culturally appropriate health literacy education.

Specifically this thesis aims to:

1. Explore how ethnic minority women currently use maternal healthcare services, and what influences their decisions to seek and not seek skilled care during pregnancy and childbirth (Chapter 3)
2. Investigate how primary health care professionals and ethnic minority women experience patient-provider communication in the maternal and child health setting, and explore the factors underlying their experiences (Chapters 4 and 5)
3. Understand how patients' and health professionals' diverse cultural backgrounds may influence patient-provider communication (Chapters 4 and 5)
4. Explore the nature of maternal health literacy among ethnic minority communities in DBP by investigating:
    - how ethnic minority women understand and use health information in order to care for and make health decisions for themselves and their children (Chapters 5 and 6)
    - the sources of health information used and trusted by ethnic minority women (Chapters 5 and 6)

1.7 Structure of the thesis

Chapter 1 presents an overview of the research context, relevant literature, and the aims of the thesis. Chapter 2 describes and justifies the research methodology, and discusses the cross-cultural research context and its limitations. Chapters 3 to 6 present the research results in the form of four manuscripts submitted (Chapter 3) or accepted (Chapters 4-6) for publication in peer-reviewed journals, (as listed on page vii, see Appendix E for published PDFs). Each of these chapters has its own introduction, methods, results, discussion and reference sections. Chapter 3 (Paper 1) explores how and why ethnic minority women in DBP currently use and do not use maternal healthcare services, in order to illuminate the factors that influence ethnic minority women and their families in their decisions to seek and not seek maternal healthcare services. This chapter gives a more general overview of factors that influence service utilisation before the subsequent chapters narrow the focus of investigation to communication and health literacy. Chapter 4 (Paper 2) explores primary health care professionals' perceptions and experiences of communicating with ethnic minority women in the maternal health context. Chapter 5 (Paper 3) investigates the same topic, but from the reverse perspective: exploring ethnic minority women's perceptions around their communication with health professionals. Chapter 6 (Paper 4) describes and investigates the impact of ethnic minority women's social and information networks on their decision-making during and after pregnancy, using distributed health literacy as an organising framework. Chapter 7 concludes the thesis with a summary of the main findings and a discussion of the implications of the thesis as a whole.

Table 1.1: Structure of thesis chapters

Chapter (Paper)	**Aim**	**Data set**
Chapter 1	Provides review of literature and describes research context and aims of thesis	N/A
Chapter 2	Describes and discusses methodology and methodological issues	N/A
Chapter 3 (Paper 1)	Explores how and why ethnic minority women currently use health services; investigate factors that influence decision to seek or not seek care	Semi-structured interviews with health professionals; Focus groups with ethnic minority women (pregnant women, mothers and grandmothers of children under five years); key informant interviews
Chapter 4 (Paper 2)	Explores primary health care professionals' perceptions and experiences of communicating with ethnic minority women	Semi-structured interviews with health professionals
Chapter 5 (Paper 3)	Explores ethnic minority women's perceptions and experiences of communicating with health professionals	Focus groups with ethnic minority women (pregnant women and mothers of children under five years)
Chapter 6 (Paper 4)	Describes and investigates impact of ethnic minority women's social networks on decision-making	Focus groups with ethnic minority women (pregnant women, mothers and grandmothers of children under five years); key informant interviews
Chapter 7	Summarises main findings and discusses implications of thesis	N/A

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Chapter 2. Research design and methodology

2.1 Introduction

This chapter presents and justifies the research methodology and design, as well as a discussion of ethical considerations and rigour as applied to this research. The chapter begins with a brief discussion of the philosophical approach I have adopted for this research, followed by a description of focused ethnography, the methodology used for this thesis. While specific research design considerations and methods, such as sampling and recruitment, data collection and analysis are described in the papers that make up Chapters 3 to 6, in this chapter I will elaborate further on research design and methodological issues that arose during the course of the research that I have not been able to include elsewhere, particularly the issues around conducting cross-language research with interpreters.

2.2 Philosophical approach to the research

This study takes a pragmatist approach to research. This approach focuses on the outcomes and actions that arise from research and was proposed by Cornish and Gillespie [1] as a solution to the traditional dichotomous choice between positivist approaches (associated with effective, evidence-based actions to improve health outcomes) and constructionist approaches (associated with more nuanced critiques of the political, social, and moral dimensions of health issues) in health research. Pragmatism as an approach is often associated with mixed methods research, however the philosophical underpinnings of pragmatism can support social research that uses quantitative, qualitative or mixed methods [2]. Cornish and Gillespie [1] argued that positivist approaches prioritise a singular 'truth' that dismisses alternative forms of knowledge, while constructionist approaches hold that reality is interpreted and constructed by human perception, and can never be truly known in an absolute sense [3]. The pragmatist perspective 'avoids the problems of realism and relativism and enables both critique and action' [1] (p.801).

Pragmatism provides an alternative to the philosophy of knowledge approach which situates social research within the framework of ontology, epistemology and methodology [2], and contends that research practices are neither determined by, nor dependent on specific philosophical stances [4]. However, as argued by Maxwell and Mittapalli [4], whether or not research practices are determined by researchers' ontological and epistemological assumptions, these assumptions about the nature of reality (ontology) and how best to acquire new knowledge about it (epistemology) still exist within researchers, and will influence research practice to some degree, even if this influence is unconscious. As such, it is perhaps necessary to make explicit the philosophical perspective underpinning this research, which can best be described as a critical realist [5] ontological stance. Critical realism, also known as subtle realism [6], is located between positivism and constructivism and accepts that there is a real external social world of knowable phenomena that exists independently of our subjective interpretations, but that our access to knowledge about those phenomena is via people's perceptions and interpretations of them [6,7]. This also includes the researcher's subjective perceptions and interpretations [7], which are necessarily tempered by their own experiences and cultural assumptions, as 'there is no way in which we can escape the social world in order to study it' [8] (p.15-16). From this perspective, we are unable to claim objective or certain knowledge of reality [4]; rather knowledge is defined ‘as beliefs about whose validity we are reasonably confident’ [6] (p.50) while acknowledging these beliefs as partial and fallible [4]. In doing so, critical realists are able to preserve ontological realism, while allowing for epistemological constructivism [4].

A pragmatic approach holds that there is no fixed ‘best’ methodology or methods to acquire new knowledge and informs qualitative research in two main ways. Firstly, by directing the field of enquiry towards obtaining useful, actionable findings, and secondly in making pragmatic research decisions based on real-world constraints [3]. Researchers can be flexible, choosing methods according to what is the most appropriate to answer the research questions [7] given the existing limitations, rather than uncritically following the precepts of a specific paradigm.

2.3 Methodology

Methodology reflects the philosophical underpinnings of research (and often the researcher), as well as referring to the context within which specific research methods are utilised. I have employed an ethnographic methodology as the framework for this research, as the research questions are focused on underlying cultural factors, social connections, and behaviours both within and between interacting groups (ethnic minority women and health professionals) that potentially impact upon the health of ethnic minority women and children. Specifically, I have chosen a focused ethnographic approach. In classic ethnographic approaches, the researcher often has an open focus of investigation in which entire social fields are studied during long-term immersive fieldwork. In focused ethnography, the field of investigation is determined by pre-existing research questions that are usually based on background knowledge, and are generally problem-focused and context specific [9,10]. As the overarching aim of this research is to contribute in a practical way to the development of culturally appropriate health literacy education, this problem-focused and action-oriented approach is appropriate to the research aim and research questions stated in Chapter 1 and is consistent with pragmatism.

2.4 Focused ethnography

Focused ethnography originated with studies in specific cultural settings that looked at how cultural beliefs determine health practices, with a view to informing the planning and delivery or culturally relevant practices by clinicians and health services [9]. Focused ethnography has been used in a range of cultural settings in both high-income countries and low and middle-income countries to investigate various health and research fields, including nursing [9,11,12], disability and rehabilitation [10], paediatrics [13], adolescent pregnancy [14], HIV [15], treatment-seeking behaviour and traditional medicine [16], physical activity [17], migrant health [12,18], maternal and child health [18], and musculoskeletal conditions [19].

The characteristics of focused ethnography can perhaps best be described in contrast to the characteristics of traditional, or classical, ethnography. Ethnography has its roots in late nineteenth/early twentieth century comparative cultural anthropology [20], when anthropological researchers conducted long-term (often over several years), immersive, high experiential first-hand data collection, generally through participant observation. It is a well-recognised methodology for researching cultures and groups in their natural setting – *ethnos* being the Greek word for a collective people or cultural group. However, it is a time and resource-demanding methodology, which has been criticised in its traditional form for being overly concerned with description and understanding at the expense of applying findings to advocate for change [8]. In contrast, focused ethnography has at its centre an action-based orientation with a view to effect change on the issue being researched. While still embracing the anthropological methods and theory inherent in traditional ethnography, focused ethnography limits the scope and duration of fieldwork in order to investigate a specific research problem [19]. Focused ethnography does not require as intensive a time-commitment to immersive fieldwork, with field visits more likely to be short-term, purposeful, and intermittent, replacing time *extensity* with time *intensity* [21]. Participant observation takes place within discrete timeframes, and can be limited or even omitted entirely as a data collection method [9,22]. Data collection and analysis is more likely to be group or team based rather than solitary, and there is more emphasis on recordings and transcripts than on field notes, although field notes are still important [21].

While the shorter time-commitment may bring criticisms that focused ethnography is superficial, Knoblauch argues that this is not the case. He makes the distinction between time extensity and time intensity. Where traditional ethnography calls for an experientially intensive immersion over a long duration of time, Knoblauch argues that the short time period used in focused ethnography calls for the diminished experiential intensity to be compensated for with time and data intensity. Focused ethnography produces a large amount of data in a shorter amount of time, which then demands an intensive data analysis process [21].

2.4.1 Key theoretical ideas in focused ethnography

As mentioned above, ethnography has a long history as a qualitative methodology, with origins in comparative cultural anthropology. The traditional ethnographic methods, involving long-term, participatory immersion in an unknown or 'exotic' culture, thus shape our understanding of ethnography and our expectations about how it is carried out [23]. Throughout the last century, ethnography's evolution as a methodology has reflected the changing epistemological and ideological trends of the time.

The naturalist approach drew influence from the natural sciences, in which the researcher proposes to study a culture or cultural group in its 'natural' state, undisturbed by the researcher as much as possible. This approach situates the researcher as 'other,' and assumes that social phenomena exist independently of the researcher and can thus be described objectively [8]. The constructivist critique of the naturalist approach is that ethnographers themselves interpret the culture or cultural phenomena that they are researching through their own cultural lens, which in itself is socially constructed through their own understanding of their own culture in relation to the culture being studied [8]. Critical ethnography emerged as a challenge to traditional ethnography that worked toward producing description [8,23]. In contrast, critical ethnography aims to become more explicitly interventionist and transformative of existing power structures, with a focus on applying findings in order to effect social changes and achieve emancipatory ends [8,23]. Mesman described this as ‘doing ethnography as a matter not just of describing practices, but of changing them as well’ [24] (p.281).

These methodological developments have corresponded with shifts in ideological and paradigmatic thinking over time [23] and reflect that ‘there are many different ways of thinking about qualitative research and many ways to adapt it to changing times and purposes’ [23] (para.6). Focused ethnography is one of these adaptations that has developed in response to different rationales for undertaking ethnographic research. Wall states that focused ethnography thus far is somewhat methodologically underspecified [23]. Concerns have been raised about the lack of methodological foundation and the credibility or trustworthiness of the products of focused ethnographies due to the focused scope of inquiry and more limited timeframes for fieldwork compared to traditional ethnography [23]. Others argue that this is due to ethnography in general being shaped by the expectations and assumptions implicit to traditional ethnography [21,23] and that ‘it is the focus on cultural understandings and descriptions that define ethnography, rather than the form and amount of data collection that occurs’ [23] (para.11). Wall argues that despite methodological deviations from traditional ethnography, focused ethnography is capable of upholding the essential purpose of ethnography [23]. This argument is consistent with the pragmatic theoretical stance taken towards this research. Pragmatism’s focus on the outcomes and actions that arise from research, and the emphasis placed on using the methods and techniques best suited to meet the needs of the research questions [20] is compatible with the action-oriented, problem-focused, and context-specific nature of focused ethnography.

2.5 Justification of methodological approach

Focused ethnography is an appropriate approach for my study for several reasons. Firstly, the original purpose of the methodology (studying people in specific cultural settings to determine how cultural beliefs influence health practices, with a view to informing the design and delivery of culturally relevant health services) is well aligned with the aims and research questions of this project. Secondly, the more limited role of participant observation as a data collection method in focused ethnography was appropriate, as my ability to act as a participant observer was limited by language barriers and the need to conduct data collection with a Vietnamese interpreter. However, observational data, from a non-participant field-observer stance was still utilised to inform the analysis. My Vietnamese colleague and I both took field notes throughout the data collection period, which were discussed and compared in regular meetings at the end of each day of data collection. From a practical viewpoint, the research context as well as budgetary constraints supported a shorter fieldwork duration that was focused in scope, and intensive in terms of data collection and subsequent analysis.

2.6 Ethical considerations

This section details the key ethical concerns that were considered in this study, including informed consent, and confidentiality. An ethics approval was granted by the University of Sydney Human Research Ethics Committee (HREC) (Project No. 2015/251) (Appendix A). Additionally, the research plan was approved and supported by representatives of the Dien Bien Province (DBP) Public Health Service, and the Vietnamese Women's Union (VWU). In accordance with the requirements of the

University of Sydney HREC, all participant documents (letters of introduction, participant information statements and scripts, consent forms, and scripts for oral consent) were independently translated into Vietnamese and certified.

2.6.1 Informed consent – health professionals

Commune health stations were nominated by officials at the district level, in accordance with the sampling criteria, however individual health professionals at those nominated health stations were recruited on a strictly voluntary basis. Health professionals were given a letter of introduction informing them about the study and the researchers, which was approved and signed by the Director of the District Health Service. With the letter of introduction, they were also provided with a Participant Information Statement (PIS). Health professionals were given as much time as they required to read through these documents and ask questions prior to giving written consent to participate in an interview. The voluntary nature of their participation was emphasised, as well as the fact that there would be no foreseen professional repercussions should they choose not to participate or withdraw from the study. They were also reassured that the contents of their interview would be confidential.

2.6.2 Informed consent – community members

Ethnic minority women were recruited with the assistance of the VWU, in the same communes nominated by the District. Based on the research team's previous experience with low literacy populations in Australia and the specific population in DBP, we created simplified versions of the PIS and consent form for community members in order to make the information more accessible to a low literacy, low education population, as PIS and consent based on the standard templates designed in

Australia may be intimidating and difficult to understand for these groups [25]. These adjustments were made with the intention to provide a more informed consent process, as the information on which potential participants would make their decision is more understandable and accessible. Written PIS were provided to all women, however several women in our sample were illiterate and/or did not speak fluent Vietnamese. Anticipating this, we prepared an oral script of the simplified PIS and consent forms, which were read aloud to participants. Oral scripts were also approved by the HREC. For those women who were not fluent in Vietnamese, local interpreters from the VWU or the People's Committee translated the oral participant information and consent scripts into Thai or Hmong as required. All community participants gave written or oral consent to participate in the study. One community participant, a village health worker, gave consent to participate, but did not wish to be audio-recorded. Instead, written notes were taken.

2.6.3 Confidentiality

Confidentiality of information in this study has been protected mainly through the de-identification of participant data. After each day of data collection, data, including demographic characteristics, were de-identified. All participants were provided with an ID number for this purpose. Audio recordings, identified by ID number, were sent through a secure file transfer service to the transcriber, who signed a contract guaranteeing confidentiality. Data shared with research supervisors during the course of data collection and analysis were also de-identified. I have provided a small amount of participant information required to contextualise quotes when reporting the results of the analyses (ethnicity and gender of participant and health professional type/focus group category where appropriate) but I have refrained from systematically including information such as age and/or years of practice that would facilitate identification of individual participants.

2.7 Research design issues

2.7.1 Researcher identity

Researcher characteristics such as gender, age, and ethnicity have the potential to shape relationships with research participants in significant ways [8], and thus should be considered in the context of both research design and findings [3]. I am a white, female Australian, with an educational background in the humanities and international public health, and a professional background working in public health research, particularly qualitative research. I am a native English speaker, and I do not speak Vietnamese with any level of fluency. I attended Vietnamese language lessons in Sydney prior to data collection in order to be able to exchange greetings and basic personal information about my age and family with research participants. These basic language skills were useful for rapport building with research participants and other community members. Issues regarding language difference and working with an interpreter are addressed thoroughly in the next sections of this chapter.

I was 30 years old at the time of data collection – younger than the majority of health professional participants, and older than the majority of community participants. Research participants were generally aware of my age, as it is common for Vietnamese speakers to ask someone's age (in Vietnamese, people are addressed differently in conversation depending on their gender, relative age and social relationship to the speaker).

Prior to the data collection period I had been to Vietnam twice – once as a tourist many years ago, and once to conduct meetings with local collaborators for this study, four months prior to data collection. Although I did not personally have a history working in Vietnam, the University of Sydney, through the Hoc Mai Foundation, has a relationship with the DBP Public Health Service and the VWU that stretches back over a decade, specifically in the area of maternal and child health projects. Through these existing contacts, I was able to establish local relationships prior to data collection, and consult with Vietnamese colleagues on how to best engage potential research participants in a respectful and culturally appropriate manner. During this study I spent a total period of approximately ten weeks in Vietnam, five to six weeks of which were devoted to data collection. The remaining time was spent familiarising myself with the Vietnamese context, conducting stakeholder meetings and interpreter training, assisting in the facilitation of research capacity building workshops for Vietnamese medical professionals and students in Danang and Hanoi, conducting initial data analysis, presenting research findings at symposia held in Hanoi and Ho Chi Minh City, and assisting in the facilitation of a maternal and child health workshop for primary care midwives and ethnic minority community leaders in Tuan Giao District.

As a white, English-speaking foreigner, I was unmistakeably an ‘outsider’ in this research context. It is inevitable that my outsider’s *(etic)* perspective, and the participants’ perception of me as an outsider, have impacted the research process in a number of ways, as have my personal characteristics. On the one hand, my and the interpreter's female gender gave us the ability to talk to ethnic minority women about issues surrounding pregnancy and childbirth, which may not have been as openly discussed with a male researcher and/or interpreter. Our gender also gave us the ability and credibility to politely ask men to leave the room where focus group discussions were taking place, as we were discussing 'women's issues.' Additionally, the relationships with people at high levels of the DBP Public Health Service and the VWU helped to establish credibility and authority with participants and other community members that may have otherwise been undermined by relatively young age and female gender. My foreign status may have also given me a level of authority that I may not have enjoyed if I was conducting research as a local woman. For example, when socialising with Vietnamese people out of work hours I noticed that I was often invited to join the men to eat and drink, particularly if alcohol was being served, while the women sat at another table, often with the children. On the other hand, being outsiders (to the local context and to the ethnic minority groups) may have introduced an element of social desirability bias to our study, as participants may have felt compelled to tell us what they thought we would want to hear, particularly given perceived power differentials between the researchers (educated outsiders) and the participants.

2.7.2 Cross-language qualitative research

> *Qualitative researchers seek to reflect a dynamic social world that is constantly changing. Without current fluency in participant language, they must depend*

> *on the qualifications, integrity, and skill of their instrument, the interpreter – a human being who is also dynamic and changing.* [26] (p.570).

Apart from basic greetings, most of my interactions with research participants took place with a Vietnamese interpreter, which had implications for data collection and analysis. Recorded data (audio-recordings) were further mediated by an independent translator/transcriber, with no involvement or affiliation with the research team. The distinction between interpreter and translator as put forth by Baker [27] is applied throughout this and subsequent chapters; the interpreter orally translates speech, while the translator translates written material from one language to another.

The term 'cross-language research' describes qualitative research that utilises an interpreter or translator at any stage in the course of the research process [28,29]. In cross-language research 'we depend on the indirect connections of translators to accurately reflect meaning' [26] (p.568). Inevitably, these connections will sometimes be imperfect. Neglecting methodological issues around language barriers and interpretation/translation threatens the rigour of cross-language qualitative research [30]. Therefore, throughout the research process, we made efforts to minimise the impact of these imperfections by following certain steps for cross-language research and maintaining awareness of potential difficulties. This section will describe these steps, as well as providing an in-depth report of the interpreter and the interpretation and translation processes, guided by Wallin and Ahlström's [31] list of methodological considerations related to working with interpreters. The report of these considerations is also informed by Shimpuku and Norr's [32] modifications of Wallin and Ahlström's framework, as well as Squires' [28] criteria for evaluating cross-language qualitative research.

2.7.3 Interpreter and translator involvement

Wallin and Ahlström [31] discuss the importance of providing information about the extent of interpreter involvement, arguing that the interpreter 'is as much a part of the research process as the interviewer' (p.732). They provide seven methodological considerations related to working with an interpreter in cross-cultural interview studies (Box 2.1), which I systematically address below. I have also included information about the translator/transcriber where relevant.

Box 2.1 Methodological considerations related to working with an interpreter

The following methodological considerations related to working with an interpreter were set forth by Wallin and Ahlström's systematic literature review of cross cultural interview studies [31].

1. Number of interpreters
2. Background of interpreter(s), including age, gender, cultural background
3. Style of interpreting and interview seating arrangements
4. Competence of the interpreter(s), including previous interpreting experience, respect and trust from study participants
5. Extent of participation of the interpreter in the research process, including knowledge of research aims, participation in transcription and analysis
6. Visibility or invisibility of the interpreter(s), including language used about interpreter, use of third person quotes and if the interpreter was interviewed about their opinions and experience.
7. How trustworthiness was determined and are threats to trustworthiness discussed

1. Number of interpreters: There was one principal interpreter included in the study, who interpreted from English to Vietnamese and back. She interpreted all of the semi-structured interviews, and also facilitated focus group discussions in Vietnamese with ethnic minority women. A significant challenge in conducting this research was the variation in Vietnamese language ability amongst the research participants, specifically community members (i.e. non-health professional participants). The interpreter did not speak any of the local ethnic minority languages, therefore interpretation of local languages (Thai and Hmong) was arranged on an ad hoc basis. Although this more informal method of interpretation was not ideal, the alternative was excluding non-Vietnamese speaking women from the study, which was also less than ideal. Writing in the context of immigrant healthcare needs in the United States, Esposito argued that research that fails to include participants who do not speak the dominant language can lead to an inaccurate representation of peoples' needs [26]. This has consequences for the validity and generalizability of research findings, as well as having social justice implications when certain groups are consistently excluded from research [33]. Therefore, we did not feel that excluding women with limited Vietnamese language skills from this study was justified. One translator was engaged to translate and transcribe audio-recordings of interviews and focus group discussions.

2. Background of interpreter: We engaged a female Vietnamese interpreter/researcher with a high level of health knowledge; a qualified nurse working as a university educator in Hanoi. She was 23 years old at the time of data collection. She belonged to the Kinh majority ethnic group, from an urban background, and was in the interesting position of sharing a broader cultural background with the research participants, and speaking Vietnamese but not ethnic minority languages, situating her as both an insider and an outsider in the research setting. Freed [34] and Baker et al. [35] recommend matching interpreter and participant characteristics that may impact upon the interview. Given that we were dealing with several different ethnicities and a wide range of ages we did not find it practical to do this. However, due to the nature of the topics being discussed with ethnic minority women, i.e. pregnancy and childbirth, we did feel it necessary to engage a female interpreter for this study.

Local DBP language interpreters were all female, were from the same ethnic group as the participants they were interpreting for, and lived in the same community. Participants with Vietnamese language skills provided interpretation between Thai and Vietnamese in Thai communities during focus group discussions. In one Hmong commune a female employee of the People’s Committee provided interpretation between Hmong and Vietnamese during focus group discussions. In the other Hmong commune a village midwife/VWU representative provided interpretation.

The translator/transcriber was a female native Vietnamese speaker based in Hanoi. There are some differences in dialect and accent between Vietnamese speakers in the North and South of Vietnam. As this research was being carried out in the North, both the interpreter and translator/transcriber were from the North (Hanoi) in a further attempt to minimise further language discrepancies.

3. Style of interpreting and seating arrangements: Interviews were conducted in the suggested triangular seating style [33,34,36,37] allowing all three parties to see each other's faces. Interviews were interpreted in a consecutive style (i.e. one person speaking at a time, as opposed to simultaneous interpretation). All focus group discussions were held with participants, facilitator (main interpreter), researcher and local interpreters sitting in a circle. We sat on the floor on mats, or on low benches and stools. One focus group was held in a community hall, where we sat in a circle around a table. Interpretation that occurred in focus groups discussions was also consecutive. Interviews and focus group discussions were audio-recorded, then translated from Vietnamese and transcribed in English by the independent translator. All English utterances were transcribed verbatim. Translations provided during data collection by the interpreter were checked during this process, with notes added by the independent translator of potential alternative translations where relevant.

Working with an interpreter during the research process will by its very nature involve some loss of control on the part of the researcher [33]. Researchers working with interpreters to conduct interviews need to balance the need to gain in-depth information (less researcher control) with the need to obtain valid data (more researcher control) [33]. These two competing needs are embodied in the passive and active interpreter models (Figures 2.1 and 2.2) as presented by Pitchforth and van Teijlingen [38]. In the passive model of interviewing, the interviewer asks questions through the interpreter, who then interprets the response directly back to the researcher, without the ability to prompt the interviewee or ask follow-ups and clarifying questions autonomously [38]. This style gives the researcher a greater degree of control over the interview process and its contents. Alternatively, an active interpretation style, where the interpreter is granted a high degree of independence to prompt and ask their own follow-up questions will probably generate more in-depth answers from participants and result in a more conversational style [33]. This style may also be less frustrating for participants, as the passive model may reduce the focus on participants as more time is spent in back-and-forth between the researcher and the interpreter [38]. The active model potentially reduces the researcher's control, as the interpreter's agenda may start to have more effect on the interview content [33], minimising the role of the researcher in the eyes of interviewees [33].

These two interpreter models, the passive and the active, fall at the ends of a continuum of styles [31]; we endeavoured to chart a course between these two extremes, while favouring the active style. This gave the interpreter the freedom to elicit more detailed information from participants through prompting and follow-up questions without first interpreting the initial response. We attempted to minimise the potential disadvantages of the active interpreter style by working with an interpreter who had a high level of health knowledge, a good understanding of the research aims, and continuing involvement with the research after data collection.

Figure 2.1. Passive interpreter model

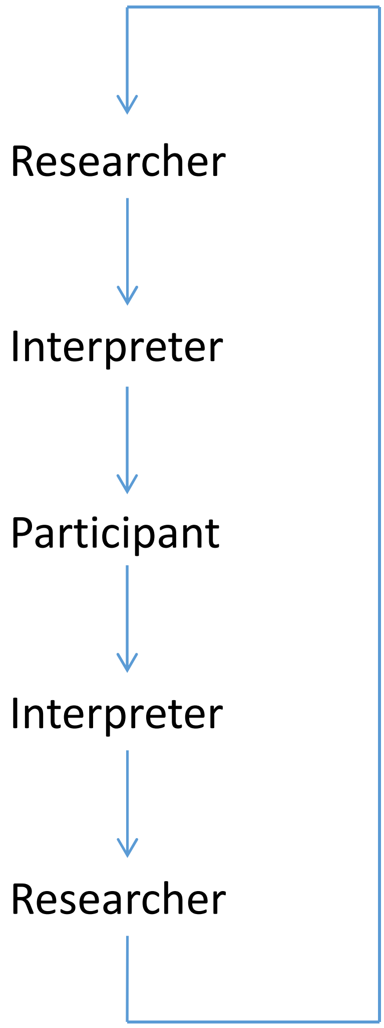
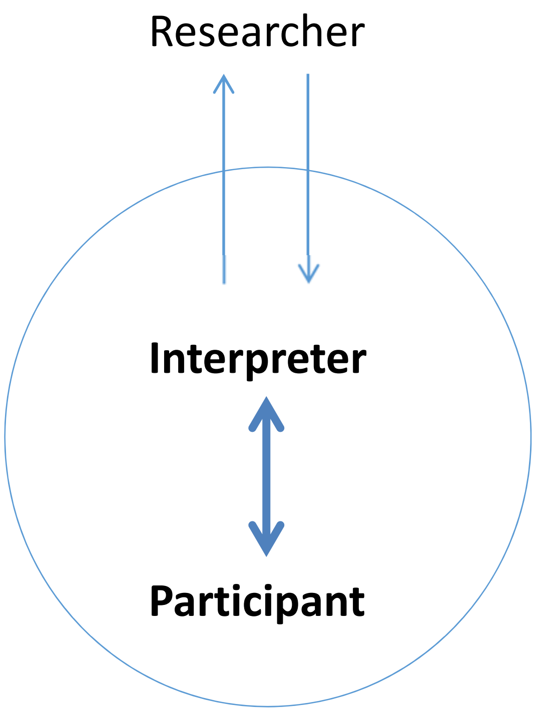


Figure 2.2. Active interpreter model



Figures ‘Passive interpreter model’ and ‘Active interpreter model’ by Pitchforth & van Teijlingen [38] are licensed under CC BY 2.0

4. Competence of the interpreter: The interpreter had a competent level of spoken English; her nursing degree (undergraduate level) was mostly conducted in English, at a Vietnamese university. She demonstrated sociolinguistic competence (demonstrates a combination of social, technical and cultural competence), the minimal level of language competence recommended for cross-language research interpretation and also the higher-level strategic competence (uses compensatory skills allowing adaption when encountering unfamiliar words/terms and slang) in English [30]. She was also an outsider to the study location, but was known by health professionals and community members to be medically trained, thus affording her a level of respect among participants. While she had minimal practical experience in qualitative research, she had fundamental knowledge about conducting qualitative research and I provided her with training on conducting qualitative interviews and focus groups prior to commencing data collection. I continued training the interpreter throughout the data collection period by giving her feedback, and she also had access to audio-recordings of interviews and focus groups for self-evaluation and reflection purposes. Interviews and focus groups were sent to a third party translator/transcriber early in the data collection period in order to facilitate timely feedback on both interpretation and skills specific to qualitative data collection (e.g. asking open questions, avoiding leading questions).

The participants knew the local interpreters. The local interpreters were native speakers of the ethnic minority language they were interpreting from/to, and were confident speaking Vietnamese. The local Hmong interpreters were also employed in positions that required them to be fluent in speaking and reading Vietnamese (one worked for the People's Committee, and the other was the village midwife). The independent translator/transcriber was an experienced translator, and had previously worked on qualitative research projects for the University of Sydney that involved Vietnamese to English translation.

5. Extent of participation of the interpreter in the research process: The interpreter was regarded as a researcher, and she was fully aware of the aims of the research. As recommended in the literature [27,36] meetings were held prior to data collection to discuss the broader research aims, the aims of the interviews and focus group discussions, and her role. These discussions occurred both on Skype in the lead up to data collection, and face-to-face in the week prior to the start of data collection. The interpreter was involved in all aspects of the data collection phase of the study. She was not closely involved in the initial stages of data analysis (i.e. coding and charting), but she contributed to discussions about the interpretation of the results, and is a co-author on the publications resulting from this research.

6. Visibility or invisibility of the interpreter: As suggested by Edwards [39], the interpreter in this study generally interpreted in the third person instead of the first person, thus making the interpreter's work more visible in the research process. However, quotes have generally been presented as direct speech as translated from Vietnamese to English by the independent translator/transcriber, as recommended by Phelan and Parkman [36]. The exceptions to this are quotes from non-Vietnamese speaking women, which are presented in the third person, which further emphasises an aspect of their interactions with health professionals from a different ethnic group – a lack of a shared language [39]. As Edwards [39] encourages, I have tried to use language that does not obscure the interpreter and her role when reporting results. As suggested by Edwards [39], and Wallin and Ahlström [31], I interviewed the interpreter about her opinions of the data collection process, and her reflections and perspective on the research process as it related to her own life experiences at the conclusion to the data collection period. I audio-recorded and transcribed this conversation, and its contents have contributed to my reflexive evaluation of the research process, as have field notes made by the interpreter.

7. Trustworthiness: There are various suggestions in the literature for enhancing the trustworthiness of qualitative research that involves interpretation and translation. We determined trustworthiness through triangulation of methods, sources and analysts (see section 2.8.1 for a detailed discussion of triangulation) [31], involving the interpreter in the analysis and interpretation of findings [32], and discussing the adequacy and accuracy of interpretation with the interpreter [32] in regular meetings during data collection. We documented and reported interpreter and translator involvement, as well as contextual factors around the interpreter and interpretation process [30,32], and acknowledged the limitations of cross-language research when reporting findings [30]. We also engaged a single translator for all written translations, helping to ensure translation consistency and conceptual congruency across all transcribed data [30].

2.7.4 Potential challenges of involving interpreters in qualitative research

Table 2.1 details potential challenges to be aware of when involving interpreters with qualitative studies, adapted from Plumridge et al. [33], and the measures we took to manage these challenges.

Table 2.1. Challenges and strategies for involving interpreters in qualitative research

Challenge	Strategy adopted
Conversation may be more disjointed and less spontaneous than a monolingual interview, and prompting may be difficult.	The interpreter was encouraged to adopt an active interpreting style, and was permitted to prompt and ask follow-ups questions without researcher prompting, resulting in more in-depth answers.
Misunderstandings may be difficult to identify.	Audio-recordings of interviews were sent to the independent translator/transcriber early in the data collection process, therefore any consistent misunderstandings/misinterpretations were identified early in the data collection process.
Interpreters may identify potential issues with interview schedules.	The interpreter was consulted on interview and focus group schedules with ample time to make changes to schedules prior to starting data collection. It was also made clear that the schedule could continue to be adjusted based on initial interviews.
Due to the semi-structured nature of data collection there is scope for researchers to ask questions that are not on the planned interview schedule, and that are not easily translated in the moment. The interpreter's translation may not reflect the researcher's intent.	At the time of data collection, the interpreter was reassured that she was free to ask clarifying questions of the researcher if required. We also employed a second, independent translator to translate and transcribe data, therefore making identification of such instances of misinterpretation easier, albeit after the fact. Translated transcriptions of initial interviews were received early in the data collection process in order to address this.
There are not always equivalent words between languages, and interpreters may interpret using more technical and/or formal terms than those used by participants. Interpreters may do 'the best that they can' unless they have been invited to discuss translation problems.	As well as brief discussions between interviews and during breaks, we held debriefing meetings after each day of data collection at which the interpreter was invited to discuss any interpretation issues and discuss how they might be overcome in subsequent interviews/focus group discussions.

It is difficult for interpreters to report verbatim in practice. Participants may say more than the interpreter can remember, but interruptions may cause loss of valuable data.	All interviews were audio-recorded, translated and transcribed, apart from one key informant interview (at the request of the participant). If any data was 'lost' during the interview, although the opportunity to follow up in the moment was gone, the data itself was maintained in the transcript.
Asking follow-up questions can become uncomfortable when several attempts do not yield success and the process becomes intrusive to the participant. This may be exacerbated by the difficulty of identifying potential misunderstandings that may be causing the block.	The interpreter was familiar with the research topic and aims, and was incorporated into the research team. She was free to independently rephrase a question and/or prompt if appropriate in order to try to overcome any misunderstandings.
Interpreters may not report consistently in the first person, finding interpreting in the third person more natural.	Although data interpreted in the moment of the data collection was generally reported back to the researcher in the third person, interviews were audio-recorded so the transcribed data as originally uttered by the participant is in first person, and it is this data that was used for analysis purposes.

2.7.5 Data collection methods: in-depth interviews versus focus group discussions

We used focus group discussions as a data collection method with ethnic minority women, rather than semi-structured interviews. The key feature of focus groups is the socially-contextualised group setting [40], which generates data from interaction between participants, as well as between participants and the facilitator(s). Participants are able to express their own views, and share their experiences, as well as listen to others, comment and reflect on what they hear, and consider their own perspective in relation to those of other participants [40]. Use of focus groups is common in studies of cultural and ethnic minorities, and can provide a safe environment for marginalised voices [3]. Disadvantages of focus group discussions compared to in-depth interviews include lack of access to the detailed personal narratives of participants, and participants' potential avoidance of expressing personal viewpoints, particularly if they diverge from the group [40]. Focus groups were used instead of in-depth interviews on the advice of local partners in order to foster a more comfortable environment for the women who participated. Members of the research team with experience working with ethnic minority communities in DBP, together with local partners, also felt that based on their previous experiences a group discussion environment, where women could share their experiences and interact with their peers, and not be outnumbered in the room by 'outside' researchers, may be more conducive to an open discussion, and the generation of richer data.

We took various measures to make participants comfortable, build rapport, and encourage the diversity of viewpoints in focus group discussions [40]. These measures included welcoming women to bring their children with them to the discussion, and starting with icebreaker conversations during which we (researcher and facilitator) introduced ourselves and shared information about our families. We assured participants that there were no right or wrong answers to our questions, and made concerted efforts to engage quieter women and women with limited Vietnamese language skills.

We were also aware that women in focus group discussions might call on the facilitator to take more of an educational, information-delivery role than what would usually be considered appropriate in a research environment. Yelland and Gifford [41] conducted focus group discussions with women of varying backgrounds in Australia, including 3 groups of Vietnamese-Australian women. Their experience in conducting these groups was that the bilingual facilitator was called on by participants to give information and advice, in their capacity as a health expert, rather than to facilitate group interaction and discussion. The facilitator considered it culturally 'polite' to answer the women's questions. To attempt to curb this, we prepared responses that the interpreter could give if she was asked for her own opinion or solicited for advice. These included directing women to the commune health station to ask health questions, offering to discuss women's questions at the conclusion of the discussion, and redirecting the question back to the group rather than answering it herself. Our transcripts do not show evidence of the directive, information-dense facilitation style that Yelland and Gifford found in their study.

2.8 Rigour of the research process

This section presents the concepts and techniques that were used to establish rigour and maintain quality throughout the course of this research: credibility, confirmability, transferability, dependability [42], and reflexivity. These were used in addition to the strategies used to establish rigour in interpretation and translation, discussed in sections 2.7.2 to 2.7.4.

2.8.1 Credibility

Credibility refers to the believability and trustworthiness of the findings. There are several ways of establishing credibility in qualitative studies [42]. The main technique used in this study is triangulation. This research involved triangulation of different qualitative methods (interviews and focus group discussions) as well as triangulation of multiple data sources and analysts in order to produce a more comprehensive understanding of the research subject while theoretically reducing systematic bias from the analysis process [3]. Exploring the research questions from the perspective of both health professionals and ethnic minority women revealed both consistencies and contradictions between accounts. These contradictions do not necessarily threaten the credibility of the findings. The value of triangulation does not lie in finding perfectly concordant evidence. Rather, these contradictions extend our understanding of the subject by considering multiple perspectives, and providing depth to the analysis rather than certainty [43]. Additionally, by interviewing multiple staff members at the one health station we were able to develop a fuller, more credible picture of the operations of the health station and the activities of health professionals than would have been achieved had we only interviewed one or two key staff members. We also used analyst triangulation, whereby data and findings were reviewed, and coding schemes developed collaboratively by a multidisciplinary team with wide ranging expertise and interests, including health literacy, health psychology, medical education, and maternal and child health. This helped to provide a check on selective perception and illuminate different ways of seeing the data.

Member-checking is also a common approach for assuring credibility [42]. Member-checking involves checking the data and interpretation of the data with participants. Given the logistical and language constraints involved in undertaking this research, systematic member-checking of data and findings was not possible, and may have been potentially problematic for several reasons. Firstly, participants' accounts reflect their perspectives and reality at a specific point in time. Sharing transcripts and analyses months later, as would have been necessary in this study, may complicate the analyses as participants' present reality may no longer be reflected [44]. Secondly, member-checking would have added a considerable additional participation burden, particularly on ethnic minority women. Thirdly, member-checking can be problematic if participants have other motives. Participants may be uncomfortable with unflattering or critical findings, and seek to 'save face' by seeking to discredit the research findings.

However, some emerging findings, including points of confusion, were informally raised at a return visit (six months after data collection) to Tuan Giao District with a group of midwives attending a training workshop. All of the midwives at the workshop were working in Tuan Giao District at the commune health station level, and several of the midwives who participated in interviews were present. This discussion was particularly helpful for clarifying certain issues that had arisen in analysis, particularly some questions that had recurred in the data about women having trouble accessing free healthcare through the government insurance scheme. We also took a pragmatic, integrated approach to member-checking during the data collection process through the use of probing and follow-up questions asking participants to expand and clarify their remarks, as well as account for inconsistencies in their remarks.

2.8.2 Confirmability

Confirmability refers to whether the findings can be confirmed by others, and are shaped primarily by the research participants, and not by researcher bias and interests [42]. An important technique for establishing confirmability is through an audit trail [42], which provides a transparent account of all of the steps taken throughout the research process, and systematic description of data collection and analysis methods and processes. This chapter, as well as Chapters 3 to 6, provide a thorough description of the research design, sampling rationale and techniques, data collection instruments (Appendix B) and processes, and the data analysis process. The research findings are presented with supporting participant quotes, as well as contextual information. Confirmability can also be established through triangulation, as described in section 2.8.1.

2.8.3 Transferability

Transferability refers to whether the findings can be generalised or transferred to other settings [42]. Transferability of these research findings has been established by providing the inclusion/exclusion criteria for participation, and collecting and providing thick descriptive and contextual data [42]. This level of detail makes it possible for readers of this research to make judgements in relation to the transferability of the findings to other contexts and participant groups.

2.8.4 Dependability

Dependability refers to whether the findings are consistent and could be repeated with similar participants and methods to find similar results [42]. Dependability can be established by engaging an external researcher to conduct an inquiry audit of the data collection, analysis and findings to confirm that they are supported by the data [42]. However this can be problematic given that this approach assumes that it is possible to objectively capture and confirm ‘truth’/’reality’, while effectively erasing the impact of the researcher on the analysis process. Dependability can also be established through an audit trail [42], as described in section 2.8.2.

2.8.5 Reflexivity

Ethnography as a methodology encourages reflexivity, as do many qualitative methodologies. Reflexivity focuses on making transparent and explicit the effect of the researcher, and how the chosen methodology and methods for data collection and analysis influence the research process and the final outputs [3]. Ethnographic researchers should consider how their values and interests shape their own cultural worldview, their view of the culture being studied, and how their interactions with participants may shape the data and their interpretation of it [8,9,11]. Being alert to this subjectivity in oneself also assists in enhancing the trustworthiness of research findings [3]. This is particularly important to this study, given the relatively short data collection timeframe, and the cultural and linguistic differences both within the research team, and between the research team and the research participants.

Throughout the research process, I maintained reflexive notes of my assumptions, perceptions and behaviours that may have influenced data collection and analysis, and encouraged the interpreter to do the same while we were in the field. Some of these are detailed in section 2.7.1 above.

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Chapter 3. A qualitative analysis of factors that influence ethnic minority women in Vietnam to (not) seek maternal health care (Paper 1)

This paper presents a qualitative study exploring the factors that influence ethnic minority women and their families in their decisions about whether or not to seek maternal healthcare services, as well as their decisions about what type of service to access. This paper is intended to give a general overview of factors influencing service utilisation. While it appears first in this thesis, it is the final of the four papers to be published.

Chapter 3 is currently under review as McKinn S, Duong TL, Foster K, McCaffery K. A qualitative analysis of factors that influence ethnic minority women in Vietnam to (not) seek maternal health care. BMC Pregnancy and Childbirth, under review.

3.1 Abstract

Background: Dien Bien Province in northwest Vietnam is predominantly populated with ethnic minority groups, who experience worse maternal and child health outcomes than the general population. Various factors are associated with maternal health care utilisation in Vietnam, including ethnic minority status, which is recognised as a key determinant of inequity in health outcomes. The aim of this study is to explore how and why ethnic minority women utilise maternal health services, and the factors that influence women and families' decisions to access or not access facility-based care.

Methods: We used a qualitative approach, interviewing primary health care professionals (n=22) and key informants (n=2), and conducting focus groups with Thai and Hmong women (n=42). A thematic analysis was performed.

Results: There were three main themes. 1. Prioritising treatment over prevention: women talked about accessing health services for health problems, such as unusual signs or symptoms during pregnancy, and often saw limited utility in accessing services when they felt well, or for a normal physiological event such as childbirth. Health professionals also saw their role as being mainly reactive, rather than prevention-focused. 2. Modernisation of traditional practices: health professionals and ethnic minority women discussed recent improvements in infrastructure, services, and economic circumstances that had increased access to health services. However, these improvements were less pronounced in Hmong communities, suggesting inequity. 3. Ethnic minority women's and health professionals' perceptions of quality influenced service utilisation: both groups perceived primary care facilities to be of lower quality compared to hospital, and some ethnic minority women made decisions about accessing services based on these perceptions, preferring to travel further and spend more to access higher quality services. Health professionals' perceptions of low service quality appeared to influence their referral practices, with even uncomplicated cases referred to higher level services as a matter of course.

Conclusions: Primary health care facilities were technically available and accessible to ethnic minority women, however these services were likely to be underutilised if they were perceived to be of low quality. Some women had the means to access higher quality facilities, but others had limited options, potentially reinforcing inequities in health outcomes.

3.2 Background

The provision of adequate antenatal care and skilled attendance at delivery are widely accepted strategies for preventing infant and maternal mortality and morbidity [1–3]. Adequate antenatal care is associated with better infant survival and is an important determinant of safe delivery. While antenatal care cannot predict all potential obstetric complications, it is widely accepted that antenatal care presents opportunities to recognise and identify pregnancy risks, provide education about recognising and acting on danger signs, and monitor and support women's health [4–6]. The risk of maternal death is highest immediately postpartum and in the following 48 hours [7]. The presence of skilled birth attendants, whether a woman gives birth at home or in a health facility, is a vital intervention for preventing maternal and infant mortality [2].

There are many factors affecting the uptake of antenatal care and skilled birth attendance in low and middle-income countries (LMICs) [1,4,8–11]. In Vietnam, previous research has shown that factors such as belonging to an ethnic minority group, low income, low education, and living in a rural area are significantly negatively associated with maternal health care utilisation [12–14]. Ethnic minority status has been highlighted as a key structural determinant of inequity in health outcomes [15]. Ethnic minority women in Vietnam are much less likely than those from the Kinh majority to attend antenatal care and to give birth with a skilled attendant present [16]. Low levels of maternal health care utilisation have also been attributed to living far from health facilities and lack of access to transport, however this overlooks the fact that utilisation of services is often low in facilities that are in close proximity to villages [17,18]. Traditional customs and cultural differences between ethnic minority patients and health professionals are also cited; however, representations of ethnic minority practices as barriers to service utilisation can play into stereotypes that 'other' ethnic minorities [18], while suggesting a reluctance to examine issues of satisfaction, quality, and appropriateness of health services that may contribute to low levels of service utilisation [18].

Dien Bien Province (DBP) is a mountainous province of Vietnam, predominantly populated by ethnic minority groups [19] who experience poorer health and economic outcomes than the Vietnamese average [20]. Maternal and child health outcomes in DBP are particularly poor [20–22]. Family networks play an important role in both facilitating and delaying the decision to seek maternal health care, particularly during labour. There are opportunities for community education around facilitators and barriers to seeking care, particularly preventive maternal care, i.e. antenatal care and skilled birth attendance/facility-based delivery for an anticipated normal birth [23]. This study uses a qualitative approach to explore how and why ethnic minority women in DBP currently use and do not use maternal healthcare services, in order to illuminate the factors that influence ethnic minority women and their families in their decisions to seek and not seek maternal healthcare services, and the barriers and facilitators to preventive care seeking.

3.3 Method

Methods for the overall study have been published elsewhere, with the study setting, recruitment, data collection and analysis processes extensively described [24,25]. Essential information and relevant modifications are described below. Ethics approval was obtained through the University of Sydney Human Research Ethics Committee (Project No. 2015/251). The research plan was approved by the DBP Public Health Service, the Tuan Giao District Health Service, and the Vietnamese Women's Union (VWU).

3.3.1 Study design

This study utilises a qualitative, focused ethnographic design [26]. This approach allowed us to centre culture while containing our focus to specific research objectives, with the field of investigation determined by pre-existing problem-focused and context-specific research questions [26–28].

3.3.2 Study location

The study was conducted in September and October 2015 in Tuan Giao District, DBP. This is a rural district, 80 kilometres from the provincial capital with a population of approximately 82,000. The study was conducted in five communes (from a possible 19), selected in cooperation with the District Health Service, and purposively sampled to ensure that communes with different characteristics were included. These characteristics included the ethnic makeup of each commune (three predominantly Thai, lowland communes; two predominantly Hmong, mountainous communes), distance from the District Hospital (ranging from 4-45 km), and staff structure (two of the five health stations had a full-time doctor on staff).

3.3.3 Recruitment and participants

Twenty-two health professionals were recruited from five commune health stations, one in each of the five purposively sampled study communes. All health professionals present on the day of data collection participated with the exception of one who declined, and three who could not be interviewed due to their work duties. Forty-two ethnic minority women who were currently pregnant, or mothers or grandmothers of children under five years old, were recruited for eight focus group discussions with the assistance of the VWU. Ethnic minority women were purposively sampled for ethnicity, and level of health service engagement. Two key informants (one village health worker, one village midwife) were recruited with the assistance of the VWU and health professionals. All participant information and consent forms were provided to participants in Vietnamese, or translated orally into local languages (Thai and Hmong) if required. All participants gave written or oral consent. See Table 3.1 for participant characteristics.

3.3.4 Data collection

Health professional interviews were conducted in English and Vietnamese by SM, working with a Vietnamese interpreter (DTL). Focus groups were principally conducted in Vietnamese, with some interpretation into Thai and Hmong. DTL facilitated focus groups, and interpretation into ethnic minority languages was provided by local women including representatives from the VWU, People's Committee, and a village midwife. All interviews and focus groups were audio-recorded, with the exception of one key informant interview, at the participant's request.

Table 3.1. Participant characteristics

Health professionals	n=22	Ethnic minority women*	n=37	Grandmothers	n=5	Key informants	n=2
Sex		Age (range 18 – 33)		Age (range 47 – 55)		Sex	
Male	7	< 20	7	45 - 49	2	Male	1
Female	15	20 - 24	21	50+	3	Female	1
						Age (range 25 – 27)	
Age (range 21 – 57)		25 - 29	5	Ethnicity			
<25	1	30 - 34	4	Thai	5	25 – 29	2
25 - 34	10	Ethnicity		Years of school		Ethnicity	
34 - 44	3	Thai	28	None	1	Hmong	2
45+	8	Hmong	9	1 - 6	4	Years of school	
Primary health care position		Years of school		Children (n)		7-12	2
Medical Assistant	11	None	5	2	1		
Midwife	6	1 - 6	10	3	1		
Doctor	2	7 - 12	19	4+	3		
Pharmacist	2	12+	3	Grandchildren (n)			
Nurse	1	Children (n)		1	1		
Years of practice (range 2 months – 38 years)		0	9	2	2		
<10	10	1	14	3+	2		
10 - 19	4	2	12				
20 - 29	5	3+	2				
30+	3	Currently pregnant	16				

*Pregnant women and mothers of children under 5 years old

3.3.5 Data analysis

An independent translator translated audio-recordings and transcribed them verbatim in English. Health professional data were initially analysed using the Framework Analysis method [29,30], with data managed in Word and Excel. Focus group data were managed using NVivo11 software. We analysed data in an iterative manner, using a hybrid coding approach that was both inductive (data-driven) and deductive (researcher-driven) to create a coding framework (SM, KF, KM), which was applied to all transcripts (SM). The data from the two main participant groups (interviews with health professionals and focus groups with ethnic minority women) each had a separate coding framework. SM then organised coded data into categories, combining the data sets at the categorical level. SM identified relationships among and between categories to generate themes. Themes were summarised and discussed with all authors.

3.4 Results

We asked health professionals, ethnic minority women (pregnant women, mothers of children under five, grandmothers of children under five), and key informants about how and why pregnant women currently used health services, and their attitudes towards these services. The results of the thematic analysis are split into three main themes: 1. Prioritising treatment over prevention; 2. Modernisation of traditional practices, and 3. Ethnic minority women's and health professionals' perceptions of quality influenced service utilisation. Themes are presented with selected supporting quotes; for more extensive supporting quotes see Appendix C.

3.4.1 Prioritising treatment over prevention

We found that both groups (i.e. health professionals and ethnic minority women) generally talked about health care and health services in a reactive rather than a preventive sense. Perceptions pertaining to health service utilisation were often expressed in terms of responding to a current health issue, rather than preventing a future health issue. Health professionals and ethnic minority women displayed several perceptions that may have a positive impact on the decision to seek health care services generally. In particular, many health professionals reported that they had made efforts in recent years to increase their engagement with communities, which had resulted in ethnic minority patients being more aware of health services, and more comfortable with approaching health services for advice and information, particularly in the context of experiencing a health problem. Both health professionals and ethnic minority women seemed to understand the role of health professionals and health services to be primarily to react to health problems, i.e. symptoms of illness and in the maternal health context, pregnancy complications. When asked about their role at the health station, health professionals often gave answers focused on examining symptomatic patients, diagnosing them, prescribing medication, and referring to the hospital.

> *When patients come, I examine them and give prescription.* (Medical Assistant)

In regards to maternal health, apart from the recommended number of antenatal care visits (the Vietnamese government recommends at least three visits for uncomplicated pregnancies), health professionals emphasised encouraging pregnant women to access health services when they experienced 'unusual signs and symptoms.' Similarly, in focus groups women spoke about the importance of going to the health station if they experienced ‘unusual’ signs, such as extreme morning sickness, irregular bleeding, and cramping. The perception that health care is primarily used when one is experiencing a health problem may influence women’s decision to access preventive care both throughout their pregnancy and in delivery. Both health professionals and ethnic minority women generally referred to antenatal care as fetal check-ups, and emphasised the importance of monitoring the health of the fetus; the importance of routine monitoring of the mother’s health was mentioned less often. Women felt less inclined to access antenatal care to monitor their own health if they felt well and did not experience obvious ‘signs and symptoms’, missing opportunities to discover hidden issues such as high blood pressure.

> *I didn’t have any problem so I didn’t go [to the health station for antenatal care]. I never had morning sickness. Just a bit light-headed.* (Thai, mixed focus group [MFG] of pregnant women and mothers of children under five years)

One woman described how she had just the one check-up at the District Hospital, when she was seven months pregnant with her first child. Having been assured by the doctor that there were no ‘problems’ at that time, she then delivered at her mother’s house. The same woman had visited a private clinic for check-ups at least five times during her second pregnancy due to experiencing significant nausea and lack of appetite; ‘problems’ she had not experienced in her first pregnancy. She chose the private clinic rather than the hospital because of the shorter wait times.

> *I just wanted to check whether there's any problem with my baby. The doctor said my baby is healthy, so I was assured until my delivery. I gave birth at home instead of the hospital.* (Thai, MFG)

The emphasis on health problems also extended to seeking out health information; health facilities were seen by some as an inappropriate place to seek health advice if they themselves were currently healthy. Older women who wanted advice on caring for their pregnant daughters and newborn grandchildren stated that they would not ask for this kind of advice at the health station.

> *We would only go to them when we feel sick. If my health is normal, I wouldn't go there.* (Thai, grandmothers focus group [GFG])

Pregnant women and their families also had competing priorities (work obligations, caring duties, financial and time cost of travelling to health facility) to consider when making the decision to access preventive care, and saw little utility in accessing health services if they were feeling well.

> *I only had check-up once, then no more. (…) I have a lot to do. If I go, there's no one at home to look after my child. And I have to look after the cows and buffalos too. I don't have time for check-ups.* (Hmong, MFG)

Fear as a motivating factor for accessing preventive care

Related to the theme discussed above, when women did discuss accessing preventive delivery care (i.e. a facility-based delivery), fear seemed to be an important motivating factor. While several women mentioned that they chose or planned to deliver their first child in a health facility because they were worried about their lack of experience, we also found that some women who gave birth to their first child at home experienced more worry around their second pregnancy, sometimes as a reaction to a previous complication. Others, despite having delivered at home without complications previously, indicated that they had learned health information subsequent to their first delivery, which made them more worried about a) delivering at home, and b) childbirth in general. Several women mentioned postpartum haemorrhage as a particular concern. Their previous experiences and increased health knowledge appeared to impart fear rather than confidence. These women indicated that they gave birth, or intended to give birth to their subsequent children in a health facility. While their fear seemed to motivate their decision to access preventive care prior to childbirth, they did not frame their remarks in terms of preventing a complication or emergency; rather they saw a facility-based delivery as the best way to ensure prompt availability of treatment should it be required in case of an emergency.

> *If the baby gets out too quickly then I can't do anything. If I'm in too much pain, I should go to the hospital. They told me that so I'm quite afraid. Many people had unexpected problems (…) For example postpartum haemorrhage. I'm afraid of that. Last time I gave birth at home.* (Thai, pregnant women focus group [PWFG])

Some family members were also worried about potential complications should their daughter or daughter-in-law give birth at home.

> *I wouldn't let her give birth at home. (…) If something bad happens, I wouldn't know what to do.* (Thai, GFG)

The older women we spoke to lived in a commune close to the District Hospital, and all spoke about encouraging their daughters to deliver at the hospital, rather than at home or the health station. They also discussed encouraging hospital delivery as being a way of easing their daughters' fears and worries about childbirth.

> *When she's going into labour, I would tell her not to worry because the doctors are there to help her.* (Thai, GFG)

In contrast to those women who planned a facility delivery after a homebirth, one pregnant woman who had a negative experience (neonatal death) delivering in a health facility indicated that she intended to have her next child at home, where she previously had positive outcomes.

> *Giving birth at home is more secure. I gave birth at the hospital and lost one child, but I gave birth to 3 children at home successfully.* (Thai, MFG)

3.4.2 Modernisation of traditional practices

Health professionals, particularly in communes with a predominantly Thai population, believed that improvements in infrastructure, health services, and people's economic circumstances had increased the communities' utilisation of health services. Health professionals in these communes suggested that women were able to take better care of themselves while pregnant, as they could afford to rest from heavy farm work and have better nutrition than in the past. Health professionals also commonly perceived that people in their communities valued health more highly than people in poorer communes, and believed that this drove their utilisation of health services to some extent.

> *People here are different from other communes. They pay attention to their health and their baby's health.* (Doctor)

Health professionals claimed that some Thai women came monthly for antenatal care, above the minimum three that are recommended. In two communes, they no longer gave out clean birth kits because the majority of women now gave birth at a health facility. Some health professionals indicated that their communities displayed increased trust in health professionals and medical knowledge over traditional beliefs.

> *Since the health station was established and health services were provided, people have had great trust in health staff and no longer follow superstitious rituals. They come here to get medicines and their health problems are treated so they believe in the effects of medicines.* (Nurse)

Behaviours based on traditional beliefs and practices were often referred to by both health professionals and ethnic minority women as occurring only 'in the past.' However, this was sometimes contradicted within focus groups with ethnic minority women. For example some women asserted that home births were something that happened in the past, only to have another woman in the group state that she had given birth at home recently. Events and behaviours that were referred to as happening only 'in the past' included women doing hard farming work right up to the time of their due date, women giving birth in the fields, home births, and family members opposing the advice of health professionals.

> *The parents would say that [oppose or contradict health professionals] in the past. It was different, they didn't have anything to eat [laughs] but now we eat [laughs] if there is anything unusual we should go to the health station* (Thai, mothers of children under five years focus group [MU5FG])

Older women were particularly enthusiastic about the changes they had seen in their lifetimes as access to services and service quality improved.

> *Nowadays it's best to give birth at the hospital. People here don't give birth at home anymore. In the past all pregnant women gave birth at home. All of us here gave birth at home.* (Thai, GFG)

The situation for pregnant and postpartum women was also perceived to have improved within the family home, with older women seeing their own experiences with pregnancy and childbirth as having been 'totally different' and much harder than their daughters' experiences.

> *I tell her [my daughter] that she has it much easier than me back then, because she gets to eat everything she wants.* (Thai, GFG)

This past hardship was particularly notable in regards to what pregnant and postpartum women were permitted to eat, with food restrictions now more relaxed. Younger Thai women in another commune reported that they do not eat certain things in the first month of the postpartum period, including buffalo, beef, and water spinach, due to fear of infections.

> *Ten days after I gave birth, my mother let me eat chicken, but only one thigh. But that's so luxurious already (…) Things were so difficult back then. Now things are easier.* (Thai, GFG)

Who is left behind?

Although antenatal care and facility-based birth had become increasingly normalised in some communities, in keeping with the narrative of modernisation, the data suggested that some people are not benefiting, or benefiting less than others, from increased access to and availability of health services. There was a marked contrast between the lowland Thai communities and the Hmong communities who live in more remote mountainous areas. Health professionals in Thai communities with a few Hmong villages reported that Hmong women presented later and less frequently for antenatal care. This was often mentioned as an afterthought to their comments about the improvements that they perceived in the rest of the commune. Behaviours that health professionals perceived as 'harmful' and/or relegated to 'the past' were also conceded by health professionals to be persistent among the poorest in their communities, both Thai and Hmong. Additionally, the improvements noted by health professionals in the three predominantly Thai communes were less remarked on by health professionals working in predominantly Hmong communes, who reported more modest achievements in improving health service utilisation and outcomes.

> *The percentage of poor families is still high, so pregnant [women] still have to do heavy work to earn their livings, despite knowing that it's harmful.* (Medical Assistant and Manager of health station)

> *And they don't eat enough and therefore don't have enough nutrition. We advise them to eat healthy but they can't afford that so they don't have enough nutrition for both mother and fetus.* (Midwife and Manager of health station)

Data from focus groups with Hmong women and health professionals indicated a lack of available, accessible, acceptable, and affordable resources for Hmong people compared to Thai people. Hmong women reported that they were not always able to speak to a female, Hmong-speaking health professional at the health station, which made some women hesitant to access services there. Generally, the Hmong women who participated in focus groups had less Vietnamese language fluency than the Thai women, and reported difficulty and/or inability to read health information given to them by health professionals. Hmong villages were also more remote, and health stations and the District Hospital were generally less physically accessible to Hmong people. The increased distance and difficulty in reaching district level health facilities also imposed extra financial costs, as they had to travel long distances, and often required accompaniment, possibly leading to lost income for their family members.

> *It's harvest season now so the whole family is away at the field. She cannot bring the baby to the hospital on her own. She already called her husband. In one or two days when her husband comes home, they will go to the hospital together.* (Hmong, MU5FG – baby had been referred to District Hospital).

3.4.3 Ethnic minority women's and health professionals' perceptions of quality influenced service utilisation.

Those women who did access preventive health services (particularly Thai women) perceived the quality of care at primary care facilities to be poor, and were increasingly making decisions about utilising care based on these perceptions. Many of the Thai women preferred to go to the District Hospital for delivery and antenatal care as they perceived the services to be of higher quality, both in terms of facilities and personnel. Women discussed hygiene levels, space and crowding, waiting times, and staff expertise (including the fulltime presence of doctors) as quality indicators that influenced their decisions about which services to use. Private clinics were also mentioned as being a good alternative for antenatal care services for women who preferred shorter waiting times.

> *Health staff at the health station are not as good as those at the hospital. And the facilities are not so good either, and they haven't got as much space as the hospital.* (Thai, PWFG)

> *In the hospital they take my blood for testing, there are too many steps (…) I want to get results quickly so I go to the private clinic.* (Thai, MFG)

Thai women frequently mentioned the availability of ultrasound as a benefit of attending a private clinic or the hospital for antenatal care, and appeared to perceive this availability as an indication of a higher quality service. Ultrasound was not available at commune health stations.

Health professionals, particularly in Thai communes closer to the District Hospital, also perceived a notable quality difference between the health station and the hospital, both in terms of facilities and in the abilities and confidence level of staff.

> *They receive better care there [hospital]. They also feel safer because there are enough facilities and equipment at the hospital in case anything happens. The health staff there has more expertise too.* (Pharmacist)

Health professionals working in a health station with inadequate physical space were especially negative about the quality of the maternal health services that they could offer.

> *We don't have anything. No blanket, no mosquito net, no bed. We have the heater and sterilizer though, so we can work with the tools for removing umbilical cord. We just have a table where the pregnant woman can lie on, which is very small. We only help with cases that are too urgent, otherwise we would transfer them to the hospital.* (Medical Assistant)

Health professionals who worked in health stations compliant with the national primary care standards also criticised their facilities in comparison to the District Hospital, while stating that they had similar equipment to the District Hospital for assisting with uncomplicated deliveries, with the exception of ultrasound. Despite the apparent availability of equipment, space, and staff, health professionals at several health stations referred women to the District Hospital for anticipated uncomplicated deliveries as a matter of course. There were also suggestions that some health professionals lacked confidence in assisting deliveries, or feared complications arising that they were not equipped to detect and manage. This may have contributed to the high number of referrals. The following quotes are from two health professionals at the same health station.

> *I've been thinking about how to increase the number of pregnant women giving birth here, and only transfer complicated cases to District Hospital. We don't assist with third-child deliveries, but we should take on normal labours.* (Medical Assistant and Manager of health station)

> *I'm not sure whether the midwife is unconfident or she's just avoiding the work.* (Medical Assistant and Manager of health station)

> *We told them that in this health centre we don't have enough facilities and medicine, so we would recommend that they give birth at the hospital.* (Midwife)

A village midwife also told us about an incident when two commune health stations refused to take a pregnant woman into their care because of their fear of complications they were not equipped to deal with.

> *I called the health station because it looked like a case of premature baby. Health staff at the health station said that it might indeed be a premature birth, but they wouldn't be able handle that case at the health station and advised me to take her to [health station in other commune]. That night I took her to [other commune] but they didn't take the case either because they're afraid it's premature birth. So I took her to [hospital].* (Village midwife)

3.5 Discussion

These results show that ethnic minority women's reasons for accessing and not accessing maternal health care are multifaceted and complex, with barriers beyond the physical accessibility and availability of health facilities. The main themes from our thematic analysis point towards three key findings: 1. the perceived role of health facilities generally is to provide treatment for illness or problems. This perception was found in both community members and health professionals. In the maternal health context, this perception can result in women and their families not seeing the value of accessing antenatal care and facility-based delivery. 2. Inequities exist between ethnic groups, with some communities (particularly Hmong communities) overlooked by the modernising narrative, and continuing with their traditional practices. 3. Women's and health professionals' perceptions of quality of care in health facilities is an important factor in determining which services are utilised. Perceptions of low quality of health stations generally resulted in women either choosing or being referred by health professionals to the District Hospital to give birth, with many of those women unable or unwilling to travel making the choice to deliver at home. We do not intend to imply that delivering at home is the 'wrong' choice. Rather, this is an equity issue in that some women and families have the option to deliver in hospital and others do not.

The perceived role of health services as reactive rather than preventive is not unique to this population [31], and may speak to a lack of clarity about the role of health stations and health services more generally in DBP. Ethnic minority women who participated in this study generally had a non-medicalised view of pregnancy and childbirth as normal, healthy physiological states, and this was linked to their views about accessing health services. This relationship has been found to be a factor in the non-utilisation of health facilities elsewhere. Qualitative meta-syntheses of the evidence on antenatal care utilisation [4] and facility-based delivery [32] also found that women in LMICs generally viewed pregnancy as a healthy state, and so saw little reason to visit health facilities or consult health professionals during pregnancy. They also found that women resisted risk-averse approaches to maternal care and health care generally [4]. In Vietnam, a recent United Nations Population Fund (UNFPA) report on barriers to accessing maternal health and family planning services found similar views among ethnic minority women across Vietnam. The report collected data from 27 ethnic minority groups in six provinces, including the two provinces that neighbour DBP and have similar ethnic makeup and mountainous terrain. Qualitative findings from this report suggest that ethnic minority women typically access health services when they experience a complication during pregnancy, but otherwise do not find antenatal care necessary. They also found a belief that antenatal care and ultrasound examination could determine whether pregnancies (and subsequently labour) would be ‘easy’, indicating that further antenatal care was unnecessary, and the baby could be delivered at home, or ‘complicated’, indicating that a facility delivery was necessary [17]. We found that fear and worry were also a motivating factor for women who decided to give birth in a health facility, for both primiparous and multiparous women. The UNFPA also found that fear and lack of experience was a factor in choosing to deliver at a health facility for nulliparous women; no women in their sample had delivered at home, and then subsequently in a health facility [17].

Our data found that Hmong participants, and health professionals working in predominantly Hmong communes, were less positive when speaking about the state of maternal health in their communities. Findings indicated a lack of available, accessible, acceptable, and affordable resources for Hmong people in DBP. In Vietnam, ethnic minority groups as a whole have much lower antenatal care attendance and skilled attendance at birth coverage than the overall national indicators and the Kinh majority [16], but there is a lack of research that disaggregates results and examines disparities between ethnic minority groups. The UNFPA found that among 27 ethnic minority groups surveyed, Hmong people were among those with the worst maternal health indicators (e.g. percentage of women attending antenatal care, percentage of births attended by skilled personnel) [17]. Research on communication between primary health care professionals and ethnic minority women in the maternal health context also indicates that Hmong women face greater communication barriers with health professionals that require culturally and contextually targeted intervention [24].

Participants (both community members and health professionals) mentioned several indicators that suggest the perception of low quality of health facilities, including long waiting times, the absence of doctors, lower level of staff expertise, no ultrasound availability, cramped facilities, absence of appropriate equipment, and lack of hygiene. We found that women who lived close to the District Hospital often preferred to attend antenatal care at the hospital, rather than the commune health station. The perception of poor quality of commune health stations, and the relative perceived high quality of the hospital was suggested as an important reason for this preference. Some women also accessed private facilities, for reasons of quality and convenience. The UNFPA also found that the main reason for the use of private facilities over commune health stations was the perceived low quality of health station services generally, with specific mention of the lack of availability of ultrasound examination, which was often used to determine whether a woman should deliver in a health facility or at home [17]. The emphasis on ultrasound examination is indicative of a wider trend in Vietnam. A study of obstetricians' views of ultrasound use in pregnancy found that obstetricians perceived that Vietnamese women associated ultrasound with pregnancy management at the expense of other clinical examinations, resulting in missed opportunities to identify potential pregnancy complications [33]. This complements our finding that women who could choose between services often chose the District Hospital or a private facility, citing the availability of ultrasound as one of the reasons motivating their preference. Some health professionals also cited the lack of availability of ultrasound at health stations as an indicator of lower quality care, both for antenatal care and delivery services, as staff doubted their own ability to detect complications and so pre-emptively referred all labouring women to the hospital.

For many of the women in our sample, the District Hospital presented an accessible, acceptable alternative to giving birth at the commune health station. The UNFPA found that a minority of their sample delivered at a health facility, and of those the majority chose to deliver at a District Hospital [17]. However, the relative direct and indirect costs of delivering at the hospital are considerable, and out of reach of many, with an average cost of USD 130, compared to USD 20 at the commune health station, and USD 10 at home [17]. For women who are unable to access the District Hospital due to reasons of accessibility, affordability, and acceptability, their options are limited to poor quality, possibly unacceptable services at the commune health station, or home. Home births provide the psychosocial benefits of culturally appropriate family-provided care, usually without a skilled birth attendant present [17]. As such, women may perceive that there is little advantage to giving birth at the health station, compared to giving birth at home, and continue to see home as their best and/or only option [16–18].

Strengths of this study include a heterogeneous sample, involvement of health professionals and community members, a rigorous analysis process, and the involvement of local collaborators. This study had several limitations. Firstly, Vietnamese is not the first language of the ethnic minority people living in this community. All health professionals and most ethnic minority women who participated in the study spoke Vietnamese; some ethnic minority women needed to speak through local interpreters. The use of local interpreters may have resulted in some distortions in women's responses, either self-imposed or interpreter-imposed. This is a cross-cultural study, and as such, some responses may have been misinterpreted by the authors. We have attempted to limit misinterpretations by conducting an independent translation of audio data and collaborating with a Vietnamese co-author. Any actual or potential misunderstandings were discussed by authors in regular meetings during data collection. Additionally, self-reported practice in interviews and focus group discussions may differ from actual behaviour, and there may be a related element of social desirability bias. We have tried to minimise this through use of a neutral facilitator and assuring participants about confidentiality.

3.6 Conclusions

The challenges to achieving equitable access to maternal health services are numerous and complex, and barriers exist on both the supply-side (health facilities) and demand-side (communities). However, barriers to access and improved communication between health professionals and communities are often perceived to exist mainly on the side of ethnic minority communities [18,24], and are based on cultural stereotypes and assumptions about the cultural 'otherness' of ethnic minorities [18]. Health promotion approaches in DBP are often focused on increasing service utilisation by ethnic minority people, and can be didactic, one-way, and paternalistic [24,25], perpetuating a health professional-centred approach in which health professionals tell women what they need rather than ask them what they want. This study, and others, have found that although health facilities are technically available and accessible to women, these services are likely to be underutilised if they are perceived to be of low quality [4,17], are not appropriately aligned with women's social and cultural context [4,18], and the perceived benefits of attending a facility are not seen by women and their families to outweigh potential harms and costs [17,23]. Those who have the means to bypass commune level facilities may access higher quality facilities that are further away, potentially reinforcing inequities. The desirability of existing services in remote, difficult to access areas can be improved through addressing and improving the quality of local care, staff training, and communication between health professionals and communities at the primary care level [34].

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Chapter 4. Communication between health workers and ethnic minorities in Vietnam (Paper 2)

This paper presents a qualitative study that used in-depth interviews of health professionals working in ethnic minority communities at the primary care level in Dien Bien Province. The aim of the study was to explore primary health care professionals' perceptions and experiences of communicating with ethnic minority women in the maternal health context. This paper was published in the journal *Health Literacy Research and Practice.*

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See Appendix E for published PDF.

4.1 Abstract

Background: Vietnam has made notable progress in reducing maternal mortality rates during the past two decades, but this overall improvement conceals regional and ethnic inequalities. Ethnic minorities in Vietnam experience high rates of poverty and mortality, and they face communication and cultural barriers when accessing health services. Poor communication with health professionals combined with limited health literacy is concerning, particularly in the maternal health context, and may exacerbate existing inequalities.

Objective: This study explores primary health care professionals' perceptions of the quality of their communication with ethnic minority women during and after pregnancy.

Methods: Semi-structured interviews were conducted with 22 primary health care professionals in Dien Bien province. A thematic analysis was performed using a framework analysis method.

Key Results: Health professionals had mostly positive perceptions about their communication with ethnic minority women. However, they generally perceived the effectiveness of their communication as being based on women's individual capacities to understand health information (both the language used and the content) and factors such as ethnic and cultural differences, rather than reflecting on the suitability of information and materials or on their own communication skills. This placed much of the burden of communication and understanding health information on ethnic minority women and their families.

Conclusions: Health professionals perceived of communication as being mainly a one-way street for the provision of health information, and rarely acknowledged the interactive nature of communication. Patient-professional communication and health literacy in Dien Bien province may be improved through the introduction of patient-centered communication skills training that applies health literacy approaches at the health professional level.

4.2 Background

Vietnam has made impressive advances during the past 25 years in lowering rates of maternal, child (i.e., younger than age 5 years), and infant mortality. A strong political commitment to meeting targets set by the Millennium Development Goals has contributed to this progress [1]; however, this country-wide success obscures regional and ethnic inequalities [2,3]. Dien Bien Province (DBP) is a small, mountainous province with a population of about 550,000 [4] in the northwest part Vietnam, bordering Laos and China. The predominantly ethnic minority and rural population of DBP experiences poverty rates, and infant, child, and maternal mortality rates much higher than Vietnam as a whole (Table 4.1).

Table 4.1: Comparison of key indicators between Vietnam and Dien Bien Province

Indicator	Vietnam (whole country)	Dien Bien Province
Poverty rate (%)	7*	29.1*
Infant mortality (per 1000 live births)	14.9†	34.4†
Under five mortality (per 1000 live births)	22.4†	53†
Maternal mortality (per 100,000 live births)	58‡	676§

*2015 data [5]; †2014 data [4]; ‡2010 data [6]; §2010 data [2]

Ethnic minority women in Vietnam are less likely to access antenatal care or give birth at a health facility [2,3,7-10], and there is evidence that inequity in service use is increasing along ethnic lines [3]. Ethnic minority status often intersects with other factors associated with a lower level of health care use in Vietnam, including geographical and physical access factors such as difficult terrain and lack of transportation [7,11,12], lower educational level of mothers [7,13], and the continued practice of traditional customs in remote areas [11]. Although it is unclear how ethnicity and distance from primary care services interact to affect access to antenatal care and delivery services, ethnicity has been found to be a significant determinant of maternal health care use after controlling for household income and maternal education [8].

There are also communication barriers that affect ethnic minority peoples' access to and quality of care. The patient–health professional interaction is an essential pillar of primary care; however, in addition to linguistic and cultural barriers, ethnic minority people in Vietnam often experience obstacles related to the patient–health professional interaction, including discrimination, poor attitudes from health staff, and a lack of culturally sensitive services [11,14-16].

Health literacy broadly refers to the factors that affect a person's ability to access, process, understand, and communicate about health information to make informed decisions [17]. Health literacy is needed for accessing and using health care and for interacting with health providers [18]. Although there is little research on health literacy in low and middle-income countries, research in high-income countries has found an association between low health literacy and experiencing communication difficulties with health professionals [19-21], and experiencing less patient-centred communication [22].

Although health literacy has not been measured on a population level in DBP, with the high levels of poverty, lower level of educational attainment, and the lack of Vietnamese language and functional literacy skills among many ethnic minority women [15], it is reasonable to assume that the level of health literacy is low [23-25].

Low health literacy and poor communication between health care professionals and ethnic minority people are concerns for the DBP Provincial Health Service, which has collaborated with the University of Sydney and the Vietnamese Women's Union to deliver maternal and child health workshops for health professionals and community leaders, with an emphasis on improving health literacy and communication between the two groups. This study explores how health professionals perceive the quality of their communication with ethnic minority women during and after pregnancy, and the factors that they believe influence the effectiveness of that communication. The overall aim of the research is to develop and support strategies to improve health professional communication to ethnic minority communities in Vietnam.

4.3 Methods

4.3.1 Study Location

We conducted the study in September and October 2015 in Tuan Giao district, DBP. We chose Tuan Giao district in collaboration with provincial and district health service officials as a representative rural district at a significant distance from the provincial capital (approximately 80 km). The district is divided into 19 communes, with a population of approximately 100,000 people. Most people in the district are from the Thai ethnic minority group [15], with a smaller population of Hmong, Kinh, Khang, and Kho Mu people. Please note that Thai people are a Vietnamese ethnic minority group who are distinct from Thai people who make up the population of Thailand.

4.3.2 Recruitment

In cooperation with the District Health Service, we selected primary level health stations in five communes. These communes were purposively sampled to ensure that health stations with a range of characteristics were included. These characteristics included distance from the District Hospital (4–45 km), predominant ethnic group of the commune population (predominantly Thai and Hmong communes were included), and whether the health station had a full-time doctor on staff (two of the five health stations had a full-time doctor at the time of the study). Three of the five communes were majority Thai with small Hmong populations, and the other two were predominantly Hmong. We also conducted focus groups with ethnic minority women in each of the five communes; we will report these results separately. The University of Sydney Human Research Ethics Committee approved the study, and the DBP Public Health Service, the Tuan Giao District Health Service, and the Vietnamese Women's Union approved and supported the research plan.

4.3.3 Participants

We invited all health professionals (doctors, midwives, nurses, pharmacists, and medical assistants) at the five health stations who had professional contact with pregnant women and mothers of children younger than age 5 years to participate in the study. We refer to the participants as health professionals throughout the course of this text to distinguish them from community (village level) health workers who have received basic health training and receive a small stipend. All participating health professionals were salaried employees working within the health system at the primary care level. We conducted interviews with all health professionals who were present on the day of the visit to the health station, and who were available to be interviewed. One health professional opted not to participate after reading the participant information statement. At one health station, three of five staff present were not able to be interviewed due to their work duties; however, we were able to interview the two staff members who had the most contact with pregnant women. Preliminary analysis of early interviews and thematic consistency among interviews conducted across the five health stations suggested saturation of key themes. All participants gave written consent. We provided all participant information and consent forms to participants in Vietnamese, their working language. Participants were not compensated for their time.

4.3.4 Data Collection

We conducted semi-structured, in-depth, face-to-face interviews with 22 primary care health professionals (see Table 4.2 for participant characteristics). We held interviews at commune health stations, during the course of the participants' usual working day, and they lasted between 23 and 85 minutes. SM, an Australian doctoral student with experience in qualitative research, and DTL, a Vietnamese interpreter/research assistant with a nursing background, conducted interviews in English and Vietnamese. SM and DTL also took detailed field notes, and discussed them in regular meetings throughout the data collection period.

4.3.5 Data Analysis

An independent third party translated audio recordings into English and transcribed verbatim in English, which enabled the checking and validation of the interpretation provided during the interviews [26]. We performed a thematic analysis using a

Framework Analysis method [27] to ensure rigor. This method of thematic analysis involves five steps: (1) familiarization with the data—three researchers (SM, KF, and KM) read a subset of interview transcripts and discussed initial themes and relationships within the data; (2) creating a thematic framework (SM); (3) indexing—we coded remaining transcripts according to the framework, with iterative revision of framework (SM, KF, KM); (4) charting—themes/quotes were summarized in the framework (SM); and (5) mapping and interpretation—framework data were examined within and across themes and participants, summarized (SM), and discussed with all authors [27,28]. We managed and coded transcripts in Microsoft Word, and used Microsoft Excel for the creation of the thematic framework and subsequent charting.

Table 4.2: Participant characteristics

Participant characteristics	**Number of health professionals n=22 (%)**
Sex	
Female	15 (68)
Male	7 (32)
Age, years (range 21 – 57)	
< 25	1 (5)
25 – 34	10 (45)
35 – 44	3 (14)
45 – 54	6 (27)
55+	2 (9)
Primary Health Care Position	
Doctor	2 (9)
Midwife	6 (27)
Medical Assistant*	11 (50)
Nurse	1 (5)
Pharmacist	2 (9)
Years of practice (range 2 months – 38 years)	
< 10	10 (45)
10 – 19	4 (18)
20 – 29	5 (23)
30+	3 (14)
Ethnicity	
Kinh	2 (9)
Thai	15 (68)
Hmong	5 (23)
Ethnically concordant with majority patient population	
Yes	16 (73)
No	6 (27)

*General medical position – two years of vocational training

4.4 Results

We have divided the results into two main parts. The first section describes the typical content and delivery of health information between health professionals and ethnic minority women as the health professionals themselves describe it. The second section comprises the qualitative analysis of health professionals' perceived role of communication on women's health behaviours and health outcomes and the perceived factors in determining the quality of communication with women.

4.4.1 Content and Delivery of Health Information

Primary health care professionals (doctors, midwives, nurses, medical assistants, and pharmacists) perceived themselves as an important source of information for pregnant women and mothers in Tuan Giao district. In the primary care setting, health professionals reported that they provide women with information about nutrition during pregnancy, abnormal signs and symptoms during pregnancy, iron supplementation, vaccination, and breast-feeding, and they encourage women to access antenatal care and to give birth at a health facility. Information is described as being mostly delivered verbally, with some use of visual aids such as pictures and flip books. Health professionals commonly referred to the *Handbook for Maternal and Child Health* (also known as the 'Pink Handbook' [29]), which they reportedly give to all pregnant women in DBP when they present for antenatal care, and is designed to be used until their child is age 6 years. This handbook was developed and produced by an international development agency and the Ministry of Health. The Pink Handbook is a home-based record written in Vietnamese, and functions as a written record for health professionals, as well as an information source for mothers on pregnancy and child health.

4.4.2 Perceived Role of Communication on Women's Health Behaviours and Health Outcomes

Primary health care professionals had generally positive perceptions about their communication with ethnic minority women in the maternal and child health context. The majority of participating health professionals in this sample felt that their communication of health information with women on an individual and community level has been an important factor in improving health outcomes in their communes, which they perceived to be the result of an increase in adherence to health advice and improvements in achieving targets for vaccination, antenatal care, and facility-based birth. This perception was especially present among health professionals working in predominantly Thai communes, although it was expressed by health professionals in all five study communes. As one female Thai pharmacist commented: 'They don't give birth at home anymore. Now most of them go to the hospital to give birth. Their knowledge has improved thanks to our communication.'

Health professionals also credited successful communication, and increased coverage of maternal and child health issues in the media, with a perceived decrease in harmful behaviours during pregnancy, such as continuing heavy manual farm work or working with toxic substances such as pesticides.

> *Before, when the media coverage of maternal and child care was limited, and the communication by health staff was limited, most pregnant women didn't know*

> *how to take care of themselves. They still worked in unsafe environments, and still did heavy work. But in recent years, with the communication work much improved, most women no longer do heavy work or work in polluted environment.* (Medical Assistant, female, Thai)

However, almost all of the Thai and Kinh health professionals acknowledged that they often have trouble communicating health messages to Hmong communities, and observed that Hmong women were less likely to seek antenatal care and were more likely to give birth at home. This was perceived by both health care professionals in predominantly Thai communes with a small Hmong population who generally live in remote mountainous villages, and those working in predominantly Hmong communes where people do not necessarily live far from the health station.

> *The most difficult part is communicating with Hmong people. They live in a remote village ... Most of them give birth at home. It's always difficult to implement the National Health Target program with Hmong people.* (Medical Assistant, female, Thai)

Approximately one-half of the health professionals also acknowledged that information provision is only useful up to a point, as they felt that pregnant women and mothers may understand what they need to do to care for themselves but are unable to do so due to economic or family circumstances. For example, they cannot afford to buy food to provide sufficient nutrition during pregnancy, or their family may not be able to spare their income.

> *It depends on the financial situation of each family. I might tell them that they need this or that to take care of the baby, but they can't afford such things.* (Medical Assistant, male, Thai)

4.4.3 Perceived Factors in Determining the Quality of Communication with Women

Health care professionals' perceived the effectiveness of their communication as mainly determined by ethnic minority women's capacities, particularly their language fluency, education level, and literacy skills. Adapting communication styles or materials for women who were less skilled was rarely mentioned or discussed by participants; therefore, the communication skills of the health professionals were seldom reflected upon by the health professionals themselves. Two main subthemes emerged regarding the perceived quality of communication between health care professionals and ethnic minority women: 'sharing the same language, sharing an understanding?' and 'the difficulties of difference.'

Sharing the same language, sharing an understanding?

The health professionals we interviewed generally perceived good or successful communication to come from speaking the same language as their patients, particularly Thai health professionals working in predominantly Thai communes.

> *We are all Thai people, we belong to the same group, speak the same language, so it's easier to work with local people.* (Medical Assistant, female, Thai)

Conversely, seven health professionals worked in communes where they were in the minority, resulting in cases where both the health professional and the patient were conversing in their second language. For example, a Hmong midwife working in a predominantly Thai commune communicated with Thai women in Kinh, which was a second language for both the midwife and the Thai women.

> *Some women don't understand the language so we have to ask other women to translate. I can speak Thai, but the midwife belongs to the Hmong group, so she has to talk to Thai women in Kinh language. Some Thai women don't understand Kinh language.* (Medical Assistant, female, Thai)

For many of the participating health professionals, there was little acknowledgment that women may have difficulty understanding the health information they provided; the assumption being that communication difficulties largely stem from language discordance.

> *There's no difficulty if we speak the same language. The only problem is language difference.* (Midwife, female, Thai)

Consequently, most of the health professionals who were interviewed seemed to assume shared language resulted in women understanding the health information. However, some of those health professionals also identified education and literacy levels among women as a factor determining how well women understood the information they provided, with ‘illiterate’ women perceived as lacking the capacity to understand health information.

> *Literate women can understand right away. Illiterate women wouldn't understand even if I repeat the information many times, or just understand part of it.* (Midwife, female, Hmong)

There was also an assumption that as long as someone in the household was able to read the information in the Pink Handbook given to pregnant women, the woman's health information needs were being adequately served. Several of the health professionals who discussed the Pink Handbook mentioned that women did not understand some of the information in the handbook or were unable to read it; their solution was to tell the women to take it home and have her husband or a literate child read it and pass on the information, thereby delegating the explanation of health information to a third party.

> *Some women are illiterate though so I told them to bring the handbook home so that the husbands and children could read it for them.* (Midwife, female, Thai)

The difficulties of difference

Discordance between health professionals and patient language was common, particularly with Hmong people living in majority Thai communes, where the participating health professionals were generally Thai. It is in these cases that health professionals most commonly acknowledged that they have problems communicating. They described interactions with women of a different ethnic group as 'difficult,' (Midwife, female, Thai) whereas interactions within their own ethnic group are 'convenient' (Midwife, female, Thai) and 'comfortable' (Medical Assistant, male, Thai). Some women preferred to speak to a health professional from their own ethnic group, if available; a Hmong midwife working with mostly Thai colleagues reported that Hmong women would not attend the health station if she was not there.

> *Hmong people always ask before they come here… ask whether I'm here or not. If I'm not here, other health staff would ask them 'what's wrong?' and the women would say 'nothing is wrong' and go home.* (Midwife, female, Hmong)

Health professionals also perceived communication as difficult when dealing with ethnic minority women who they thought of as being 'shy.' This term was generally used to describe Hmong women who were reluctant to speak to a health professional or to present to a health station, particularly to give birth. Health professionals perceived this shyness to be due to a range of factors, including discordant ethnicity and/or gender between health professionals and women, language difference, and general customs of ethnic minority people.

> *It's their customs. They're shy and don't want anyone else to see their body parts… They're shy in front of strangers. Ethnic minority women are shy like that.* (Medical Assistant, female, Thai)

> *Some [Hmong] women are shy so they just keep silent when I ask them [if they understand health information]. They look at me intently but don't say anything. Some other women, when I ask them if they understand they say yes.* (Midwife, female, Hmong)

For example, a female Kinh health professional described a 'shy' 16-year-old pregnant Thai adolescent who asked for a referral to the district hospital but refused to disclose her pregnancy because the health professional was not Thai. She overcame her ‘shyness’ with a male Thai health professional, suggesting the woman may have felt more confident disclosing her pregnancy to someone from her own ethnic group, in her own language, despite their gender difference.

> *I asked her why she asked for a referral letter… she said she has a stomach ache. I asked if there's any vaginal discharge, she said no. I asked if she's pregnant or not, she said no. Later [another staff member] talked to her in Thai language and she told him everything. She was shy and didn't answer me because I spoke Kinh language.* (Medical Assistant, female, Kinh)

Several health professionals also believed that some ethnic minority women chose not to understand them ‘on purpose’ when faced with health advice they did not wish to adhere to, particularly in regard to family planning (Vietnam has a two child policy; families who have more than two children may face punitive measures). A Hmong midwife described her frustration with this experience in regard to discussing family planning:

> *We speak the same language and understand each other, but they don't understand on purpose… when I explain to them that they should use contraceptive methods for family planning, otherwise it would lead to financial difficulties. But they would say ‘No, I would never use such things.’ I try my best to explain to them, but if they don't want to understand then it's very difficult.* (Midwife, female, Hmong)

This perception of wilful misunderstanding on the part of women also denies the possibility that women may be making a conscious choice to disregard the health professional's advice, based on their differing health beliefs, understanding, preferences, and values.

4.5 Discussion

Primary care health professionals in Tuan Giao district thought of themselves as important sources of health information for pregnant women and mothers of young children. They had generally positive views about their communication and its perceived outcomes, but they also acknowledged difficulties communicating with ethnic minorities, especially Hmong people. These difficulties were perceived to be mostly due to patient factors, particularly their ethnicity, language fluency, and literacy skills. When given the opportunity to reflect on communication problems that they had previously experienced with ethnic minority women, health professionals in our sample largely focused on these patient factors, leaving them little room to reflect on their own communication skills.

These results illustrate that health professionals considered communication to be an important part of maternal care generally, but there is little to no differentiation between the concepts of the one-way delivery of health information and interactive communication with women. Although health professionals frequently talked about how they delivered health information, and what information they delivered, there was little mention of the importance of listening to women's perspectives or ensuring that they have understood health information. There was also a perception that communication with women was useful as a means to ensuring adherence with health advice, rather than being valuable in itself or as a means to strengthen health literacy or their relationship with women under their care. Previous research has identified relationships and communication as critical elements for enhancing health literacy, highlighting the importance of the patient-provider relationship and the need for a patient-centred focus to identify and address health literacy needs [30]. Conceptual models of the causal pathways between limited health literacy and health outcomes also suggest that improving the patient-provider interaction may mediate the effect of limited health literacy on health outcomes [31,32]. This is concerning in the context of increasing the use of health services by ethnic minority women, as elements of the patient-provider relationship, particularly a receptive, respectful provider attitude and trust, have been found to be highly valued by women when choosing where to give birth [33,34]. Social stigma may also play a role in this setting. Research has identified discrimination and negative attitudes by health staff towards ethnic minority women as being a possible determinant of inequity in maternal and child health in Vietnam, as negative experiences may discourage women from seeking care [35].

The participating health professionals generally viewed pregnant women, and by extension the patient populations that they serve, within an individual deficit perspective [36]; they commonly perceived communication issues to mostly be due to patient factors that need to be overcome on an individual basis, placing much of the burden of communication and understanding information about pregnancy on women and their families. Future health literacy and communication skills training in the district and the province should encourage health professionals to broaden this perspective to recognize health literacy, and communication more generally, as an interactive social practice that is co-constructed between the health professional/system and the patient through interaction and the patient/provider relationship [37,38]. This may help to reframe the notion of communication problems from being solely due to language or educational deficits among women to a view where health professionals recognize their responsibility in creating an environment conducive to more patient-centred care. By encouraging health professionals to take a patient-centred approach to communication that does not look at communication difficulties and low health literacy purely as a patient problem, they will be empowered to better respond to the limitations that they perceive in their patients. Little research has been done on patients' preferences and needs regarding patient-centeredness in patient-provider communication in low and middle-income countries, particularly in Asian countries. What research has been done indicates that patients have different needs based on their cultural framework and local social norms [39,40] but this does not mean that they are not open to a more patient-centred approach to communication with their health care provider [41,42].

Future health professional training in DBP could consider applying health literacy approaches at the health professional level [18], with a focus on the following oral communication strategies for low health literacy populations: (1) the use of relevant action-oriented directives that clearly explain concrete actions that patients can take given their individual circumstances, (2) encouraging patients to ask questions, (3) using teach-back techniques to confirm patient understanding and identify limitations in a non-shaming way [18,43] and (4) strengthening health professional capacities for problem-solving when they experience difficulties communicating with patients from a different ethnic group [18].

Traditional health literacy strategies such as these emphasize improving how health professionals deliver information and give instructions, but our data suggest that health professionals should also be encouraged to take a broader view of communication as being more than simply delivering health information. Integrating health literacy approaches with culturally competent communication that emphasizes learning about patients' differing concepts of health and health beliefs is also necessary [44]. We would add that particular attention needs to be paid to true patient-centeredness, and recognizing that cultural difference between ethnic groups can significantly affect communication. For this reason, health professionals should be especially encouraged and supported to develop tailored strategies for communicating with Hmong communities, together with Hmong community leaders. We are cautious in drawing parallels between these findings and the larger body of research on racial/ethnic disparities and the impact of patient-provider communication. Much of the research in this area has been grounded in the specific historical and social context of the United States. However, research into the racial and ethnic disparities in the U.S. has underlined the potential role of poor communication in causing health disparities [45], and drawn similar conclusions as to the importance of training health professionals to engage in better quality communication with minority and racially discordant patients [46]. A recent systematic review [47] also highlighted the importance of cultural influences on patient-provider communication, and explored factors influencing ethnic minority patients' experiences of communicating with primary health care providers. Language barriers, discrimination, and cultural differences around values and beliefs were highlighted as important negative influences.

Strengths of this study include a heterogeneous sample, the high level of participation from health professionals, a rigorous analysis process, and the involvement of local collaborators. The main limitations of this study are that self-reported practice in interviews may differ from actual behaviour, and there may be a related element of social desirability bias. We attempted to minimize this by using a neutral interpreter and reassuring participants of the confidentiality of their participation. Additionally, this is a cross-cultural study, and some responses may have been misinterpreted by the authors. We have attempted to limit misinterpretations by independently translating all interview audio data, and collaborating with a Vietnamese co-author (DTL). The interview process and any actual or potential misunderstandings were also regularly discussed by the authors in regular meetings during the data collection process.

4.6 Conclusion

Health professionals consider communication to be an important part of patient care, but they generally perceived communication as one-way information provision, rather than an interactive social process. They perceive communication problems to be due to patient factors, including ethnic and language differences. There were specific barriers to communication with the Hmong population, which may need targeted interventions. Health literacy in DBP may be improved through integrating effective, patient-centred communication skills training for health professionals, strengthening health professionals' problem-solving capacities, and expanding health professionals' perspective of communication and health literacy to focus less on perceived patient limitations and more on their own capacity to respond to such limitations.

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Chapter 5. ‘I do want to ask, but I can’t speak:’ Ethnic minority women’s experiences of communicating with primary health care professionals in remote, rural Vietnam (Paper 3)

This paper presents a qualitative study using focus group data with ethnic minority women, who were pregnant or mothers of children under five years old at the time of data collection. The paper aims to investigate the same topic as Chapter 4, but from the reverse perspective, centring the perceptions of ethnic minority women and their experiences communicating with health professionals. This paper was published in *International Journal for Equity in Health.*

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See Appendix E for published PDF.

5.1 Abstract

Background: Ethnic minority groups in Vietnam experience economic, social and health inequalities. There are significant disparities in health service utilisation, and cultural, interpersonal and communication barriers impact on quality of care. Eighty per cent of the population of Dien Bien Province belongs to an ethnic minority group, and poor communication between health professionals and ethnic minority women in the maternal health context is a concern for health officials and community leaders. This study explores how ethnic minority women experience communication with primary care health professionals in the maternal and child health setting, with an overall aim to develop strategies to improve health professionals' communication with ethnic minority communities.

Methods: We used a qualitative focused ethnographic approach and conducted focus group discussions with 37 Thai and Hmong ethnic minority women (currently pregnant or mothers of children under five) in Dien Bien Province. We conducted a thematic analysis.

Results: Ethnic minority women generally reported that health professionals delivered health information in a didactic, one-way style, and there was a reliance on written information (Maternal and Child Health handbook) in place of interpersonal communication. The health information they receive (both verbal and written) was often non-specific, and not context-adjusted for their personal circumstances. Women were therefore required to take a more active role in interpersonal interactions in order to meet their own specific information needs, but they are then faced with other challenges including language and gender differences with health professionals, time constraints, and a reluctance to ask questions. These factors resulted in women interpreting health information in diverse ways, which in turn appeared to impact their health behaviours.

Conclusions: Fostering two-way communication and patient-centred attitudes among health professionals could help to improve their communication with ethnic minority women. Communication training for health professionals could be included along with the nationwide implementation of written information to improve communication.

5.2 Background

Vietnam has made noteworthy health advances over the last twenty-five years, particularly in regards to improving maternal and child health [1]. However, despite this national success story, regional and ethnic health inequalities persist [1,2]. Ethnic minority groups have been found to be at increased risk of neonatal mortality, stillbirth, childhood malnutrition and stunting [3] and inequalities may be increasing in some areas, such as service utilisation [2]. There are 54 officially recognised ethnic groups in Vietnam, with the largest group, the Kinh, making up approximately 86% of the population [4]. Vietnam's 53 ethnic minority groups, with the exception of the Hoa (Chinese), are more likely to be poor and living in remote areas than the Kinh majority [3]. While ethnic minority groups are considered to be a national treasure, demonstrating the rich cultural diversity of Vietnam, historically they have been the target of government reforms aimed at improving living standards while largely sidelining traditional culture [3,5]. Government policy has referred to ethnic minority groups as under-developed and backwards, while depicting the Kinh majority as more socially and economically advanced [6]. These policies have advocated for ethnic minority groups to alter their lifestyles, as their traditional practices are seen as contributing to poverty and disease [6].

Dien Bien Province (DBP) is a small, mountainous border province located in the northwest of Vietnam with a population of approximately 540,000 [7], around 80% of who belong to an ethnic minority group [8]. The population of DBP experiences poverty, and child and maternal mortality at rates much higher than national averages [1,9–11]. Previous research into ethnic minority health in Vietnam has shown significant disparities in service utilisation, with ethnic minority women less likely to access antenatal care (ANC) and give birth at a health facility [1,2,12–14], and ethnic minority parents less likely to seek medical care for their children when they are ill [15]. While geographical and physical access factors such as remoteness, lack of transportation, and difficult terrain are contributing factors to ethnic inequalities in service utilisation [12,16,17], it has been argued that ethnic inequalities are also the result of low levels of investment in physical and human capital [18]. Those investments that do exist, such as cash subsidies on housing construction, agricultural grants, interest-free loans [19], and a targeted poverty reduction policy [3] may suffer from low returns due to social discrimination, cultural difference and inadequate information, further driving inequality [18]. Prior studies have shown ethnic minority people experience cultural and interpersonal barriers when accessing services, such as discrimination, poor attitudes from health staff and a lack of culturally sensitive services [4,8,16,20].

The cultural, interpersonal and spatial factors described above are obstacles that may adversely impact the patient-health professional interaction, an essential pillar of primary care. Moreover, with the high level of poverty, lower level of educational attainment, and lack of Vietnamese language and functional literacy skills among many ethnic minority women in DBP [8], it is reasonable to assume the level of health literacy in the population is low [21-23]. Although there is little research on health literacy in low and middle-income countries (LMICs), previous research has established an association between low health literacy and experiencing communication difficulties with health professionals [24-26], and experiencing less patient-centred communication [27]. Several studies in other Asian countries with traditionally hierarchical social structures have also found that these power dynamics can flow into the patient-health professional relationship [28-31].

Maternal and child health is a concern for the DBP Provincial Health Service, which has collaborated with the University of Sydney and the Vietnamese Women's Union (VWU) to deliver maternal and child health workshops for health professionals and community leaders [32,33]. During these workshops, limited health literacy and communication between health professionals and women have emerged as major issues impacting on quality of care. Conceptual models of the causal pathway between health literacy and health outcomes have suggested that improving communication (i.e. the patient-provider interaction) may mediate the effect of limited health literacy [34,35]. This conceptualisation of health literacy provides the overarching framework for this research. The aim of this study is to explore how ethnic minority women experience communication with primary care health professionals in the maternal and child health setting. The overall aim of this research is to develop and support strategies to improve health professionals' communication with ethnic minority communities in Vietnam.

5.3 Methods

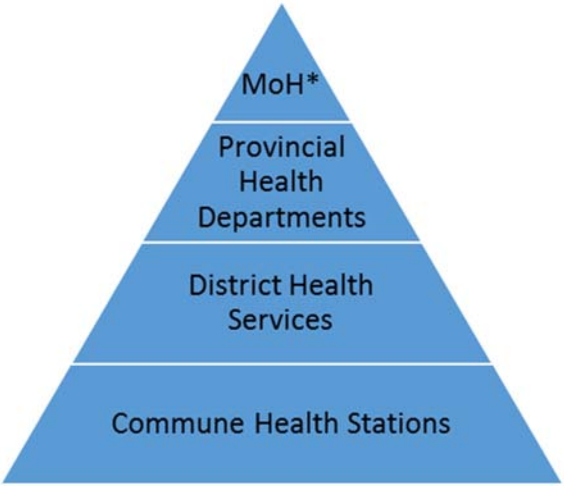
5.3.1 Study design

This study utilises a qualitative design, and takes a pragmatist theoretical stance [36]. Specifically, this study is a focused ethnography. As in traditional ethnographic research, the focused ethnographic approach allowed us to centre culture while containing our focus to specific research objectives. In focused ethnography, the field of investigation is determined by pre-existing research questions, which are generally problem-focused and context specific [37, 38]. Data collection is not reliant on long-term participant observation, as in traditional ethnography, with an emphasis on 'time intensity' over 'time extensity,' whereby a large amount of data is produced in a shorter amount of time, followed by an intensive data analysis process [39].

5.3.2 Setting

We conducted the study in October 2015 in Tuan Giao District, DBP. Tuan Giao district was chosen in collaboration with provincial and district health officials as being a representative rural district at significant distance from the provincial capital (approximately 80 km). The district is divided into 19 communes, with a total population of approximately 82,000 (Son LD, personal communication, Oct 12, 2017). The basic hierarchical structure of the Vietnamese state health system is illustrated in Figure 5.1. In Tuan Giao, each commune has a health station, with the District Hospital (which has surgical capacity) serving as the main referral point for all communes. Services at the commune level are staffed by doctors, nurses, midwives (usually responsible for basic maternity care including ANC and normal delivery), medical assistants and pharmacists. Not all commune health stations had a full-time doctor on staff at the time this study was conducted. Although commune level services provide primary care, preventive services, family planning, and maternity care (including normal delivery), in practice, patients often self-refer to district and provincial level services. There is also a small number of private clinics operating in the area.

Figure 5.1. Vietnamese health system structure



*Ministry of Health

Most residents of Tuan Giao are from the Thai ethnic minority group [8], with a smaller population of Hmong, Kinh, Khang, and Kho Mu people. Please note that Thai people are a Vietnamese ethnic minority group, as distinct from Thai people who make up the population of Thailand.

5.3.3 Recruitment

Five communes were selected in cooperation with the District Health Service. These communes were purposively sampled in order to ensure communes with a range of characteristics were included (Table 5.1).

Women who were currently pregnant, or who had been pregnant in the previous five years were eligible to participate in focus groups, and were recruited with the assistance of the VWU at the commune and village level. All participants gave written consent, or gave oral consent after hearing the information in the participant information statement. We provided all participant information and consent forms to participants in Vietnamese, or translated them orally into local languages (Thai and Hmong) if required. All women were compensated 100,000 Vietnamese dong (approximately 4.45 USD at time of data collection) for their time, which the VWU suggested as an appropriate amount. We also conducted semi-structured interviews with health professionals working at the commune health station in each of the five communes; these results are reported separately [40]. Community members were recruited for focus groups without the involvement of health station staff, in order to minimise any perceived or actual coercion. We obtained ethics approval through the University of Sydney Human Research Ethics Committee (Project No. 2015/251), and the research plan was approved and supported by the DBP Public Health Service, the Tuan Giao District Health Service, and the VWU.

Table 5.1: Commune characteristics

Commune characteristics	**N (%)**
Distance from District Hospital (range 4 km – 45 km)	
< 10 km	2 (40%)
10 – 20 km	1 (20%)
20 – 30 km	1 (20%)
30 – 40 km	0 (0%)
> 40 km	1 (20%)
Predominantly sealed road access to District Hospital	4 (80%)
Ethnic makeup	
Predominantly Thai	3 (60%)
Predominantly Hmong	2 (40%)

5.3.4 Participants

We conducted seven focus groups with 37 women who were currently pregnant or had children under 5 years old (see Table 5.2 for participant characteristics) in five villages. Two focus groups were made up of currently pregnant women (PWFG), three focus groups were made up of mothers of children under 5 years (MU5FG), and two focus groups were mixed (MFG). We purposively sampled for diversity, taking into account ethnicity, language spoken, distance of residence from the District Hospital, parity, and degree of health service utilisation. We believe the variation of experience present in the data are sufficient to adequately support the reported results and answer the research questions [41].

Table 5.2: Participant characteristics

Participant characteristics	N (%)
Age, years (range 18 - 33)	
< 20	7 (19)
20 - 24	21 (57)
25 - 29	5 (14)
30 - 34	4 (11)
Ethnicity	
Thai	28 (76)
Hmong	9 (24)
Years of school	
None	5 (14)
1 - 6	10 (27)
7 - 12	19 (51)
Post high school	3 (8)
Number of children	
0	9 (24)
1	14 (38)
2	12 (32)
3	1 (3)
4	1 (3)
Currently pregnant	16 (43)

5.3.5 Data collection

Focus group discussions were chosen as the data collection method after discussions with local collaborators. Based on previous experience working with ethnic minority communities in DBP, we felt a group environment, where women could share their experiences and interact with their peers without being outnumbered by 'outsider' researchers would be more conducive to an open discussion. Focus groups were made up of between 4 and 8 women, and lasted between 43 minutes and 1 hour and 53 minutes. We conducted six focus groups in the homes of community leaders, and one in a community hall. Discussions were intentionally held away from commune health stations in order to allow women to speak freely about their experiences with health professionals. Each session was made up of several sections: introduction and consent process (written and/or oral as appropriate), warm-up discussion introducing participants and their babies, focus group discussion (see Appendix B for topic guide), and a closing demographic questionnaire. The broad topics covered include 1. Women's experiences of pregnancy and childbirth, 2. Communication and relationship with maternal health care provider, 3. The role of family and community during pregnancy, childbirth and postnatal period, and 4. Access to and utilisation of health station and services. At several groups, older women who lived in the homes where focus groups were being conducted were also present. Although the older women were not generally present in the room for the entire duration of the focus group, some made comments during the discussion and gave consent to have their contributions recorded by researchers. We also held a focus group for older women; these results will be reported separately. Any men who were present were asked to leave the room for the duration of the discussion, on the assumption that the women could speak more freely about issues around pregnancy and childbirth. Focus groups were conducted primarily in Vietnamese, with some interpretation into Thai and Hmong, and were facilitated by a female Vietnamese researcher with a nursing background (DTL), under the supervision of a female Australian PhD student with extensive experience in qualitative research (SM). Interpretation into local languages was performed by local women, including village representatives of the VWU, the People's Committee, and in one case a village midwife. The village midwife was not an employee of the commune health station. She was elected by the community to receive village midwife training and received a stipend for her work. We audio recorded all focus group discussions and took detailed field notes, which we discussed in regular meetings throughout the data collection period.

5.3.6 Data analysis

An independent third party translated audio recording of the focus groups discussions and transcribed them verbatim in English. We used NVivo 11 Software for Windows [42] to manage the transcribed data. We conducted a thematic analysis according to the following steps: 1. One author (SM) reviewed all transcripts and discussed initial impressions with KM and KF who reviewed a subset of transcripts. 2. SM developed a coding framework by coding data using an iterative approach employing both inductive (data-driven) and deductive (researcher-driven) code development. Codes were developed through an initial open coding process, whereby codes were derived from the raw data. Data was also categorised in light of the research aims and questions that guided the development of the focus group discussion guide. Emerging findings from interviews we conducted with health professionals in the same setting were also considered [40]. 3. SM then refined, grouped and categorised codes, comparing codes and examining them across the data set to develop themes. 4. SM summarised themes and discussed them with all authors [43].

5.4 Results

In focus group discussions, Thai and Hmong women on the whole conveyed a wish to learn more about pregnancy, childbirth, their own and their children's health. They expressed their desire to ask more questions of health professionals. Generally, they wanted more information and access to health professionals, a better understanding of their health and bodies, and more opportunities to participate and learn from health professionals and each other. However, as the following results show, many ethnic minority women were not given adequate opportunity to fulfil these desires, due to the nature of their communication with health professionals. Three main themes emerged regarding how women experience communication with health professionals: 1) the pervasiveness of didactic, one-way delivery of non-specific health information; 2) variation in women's understanding and subsequent health behaviours and 3) the challenges of interpersonal communication with health professionals. Note that throughout this section quotes marked with an asterisk are in the third person because they are remarks made by local interpreters translating the responses of non-Vietnamese speakers.

5.4.1 Pervasiveness of didactic, one-way delivery of non-specific health information

Women reported that health professionals delivered information about pregnancy in a didactic, one-way style, with women acting as passive listeners. The information they recalled was mostly general and non-specific in nature, covering areas such as nutrition, check-ups and fetal development, vaccination, general self-care, and taking iron supplements. For example, regarding nutrition, women said health professionals tell them they need to 'eat enough', 'get enough nutrition,' and 'eat from all food groups.' They rarely mentioned being given specific dietary advice, although some women reported they were told they should eat more protein when they were pregnant.

> *When I had check-ups, they gave me advice. Eat enough nutrition, take proper rest, keep personal hygiene.* (Thai, PWFG)

> *They just told me to walk carefully, eat healthy, that's all.* (Thai, PWFG)

The verbal advice given to ethnic minority women by health professionals was supplemented by the *Maternal and Child Health (MCH) Handbook*. The MCH handbook was discussed in all focus groups, and most women reported receiving one. Women generally reported a lack of explanation of the health information in the MCH handbook from health professionals. Many women, especially the Thai women (where perhaps there is an expectation of higher literacy levels from health professionals than with Hmong women), described being given the MCH handbook, and told to take it home to read, with little or no explanation.

> *They just gave me the handbook and told me to read it. They didn't say much.* (Thai, MFG)

This may have been adequate for some ethnic minority women, but others stated that they struggled to understand the information in the MCH handbook, both due to the content itself, and the language and literacy barriers.

> *They didn't say anything. They just told me to keep it carefully. [laughs] No I don't [read the MCH handbook at home] (…) Because I cannot read.* (Hmong, MU5FG)

Some women particularly specified that they did not have trouble reading the information in Vietnamese, rather it was the information itself they did not understand, while others were unable to read the MCH handbook at all.

> *They said they do look through the handbook at home but they cannot read so they don't understand much of it. (…) Some of them cannot read, others can read but don't understand the information, so they would ask other people around them.* (Hmong, MFG)*

Women frequently reported asking their husband to read the book for them and pass on the information if they were unable to read. Additionally, some women lacked the time or inclination to read the MCH handbook.

> *They told me to study it at home. There is information (…) everything is in there, it's just that I was too lazy to read [laughs].* (Thai, PWFG)

> *She doesn't have time to read it. She works all day, then prepares dinner, then she wants to sleep.* (Hmong, MU5FG)*

However, women still valued the MCH handbook, although not always for reasons related to its function as a source of health information during pregnancy. Even when they could not fully understand the contents of the handbook, women acknowledged its importance and mentioned keeping it as a health record and reference, and even as a sentimental item for their child to read in the future.

> *Everything in this pink handbook is important (…) it's just that I don't understand much.* (Thai, PWFG)

> *This handbook is very meaningful (…) when your children can read, they'll see how much you love them and they'll love you back.* (Hmong, MFG)

5.4.2 Variation in women's understanding and subsequent health behaviours

The minimal detail and non-specific nature of health advice that women described being given to them may lead to women understanding and interpreting health information in a variety of ways in practice, as illustrated by the different perceptions and practices women had around taking iron supplements. Most women who discussed iron supplements had similar perceptions as to why they were prescribed, saying they were necessary when you 'lack blood,' to prevent future lack of blood, or for their baby's health. However, their experiences of communicating with health professionals about iron supplements and how to take them were much more varied. Some women reported general, non-specific instructions like 'take enough iron,' and take iron when they 'lack blood' (although it is unclear how they would assess this themselves). Others recalled specific, correct instructions about how to take iron supplements. However, women were often unaware that iron should be taken consistently, or were confused about dosage. Some reported they were told to read the MCH handbook for instructions about how to take iron supplements, saying 'they [health professionals] don't explain much.' Women reported inconsistencies between what they remembered being told by health professionals, and what they understood from their MCH handbooks.

> *They told me to take one pill in the evening. In the handbook, it is suggested to take two or three pills when I lack blood. I asked the doctor and they told me that if I did that I would die [laughs].* (Thai, PWFG)

Several women reported side effects from taking iron supplements. Some women received advice from health professionals to alleviate side effects while others were told they must endure their discomfort as a normal part of pregnancy. Several women reported that they stopped taking iron supplements due to their 'incompatibility,' often without telling health professionals. They continued to receive supplements at the health station, although they would not use them. One Hmong woman reported that she began taking her iron supplements again after the village midwife gave her instructions more tailored to her personal preferences.

> *They told me that there's no other way, I still have to take the iron for my baby. But I couldn't. They continued to give me iron but I never took it. I haven't taken the iron since I started being pregnant. I had constipation. It hurt so much. I couldn't sit or walk.* (Thai, MU5FG)

> *They told me to take the iron twice a day, each time one pill. But I didn't take it because I didn't like the smell. Then [village midwife] came and told me to take just one pill per day, and if I feel nauseous I should take it before sleep at night. (…) Yes I did [take the iron after that].* (Hmong, MU5FG)

5.4.3 The challenges of interpersonal communication with health professionals

Women reported a range of experiences communicating directly with health professionals, and differing levels of ease doing so, which could be influenced by a variety of overlapping factors, including the language spoken by health professionals, health professionals' gender, women's literacy skills, and their comfort asking health professionals questions. Women had differing levels of comfort asking questions of health professionals. Hmong women mentioned that while they were comfortable discussing certain topics with male health staff, such as how to care for a sick child, there were other topics that could not be discussed between the genders. These topics were referred to in the group as 'sensitive issues' and were centred around women's bodies (e.g. vaginal birth). This discomfort prevented them from asking questions about childbirth, and discussing safe delivery locations. This gendered communication barrier did not arise in the discussion with the Thai women, although it should be noted that the Thai women who participated had access to numerous female health professionals at their commune health stations.

> *She has many questions but she cannot ask them because they [health professionals] are male (…) She cannot ask the male staff about those issues so she has to wait till the female staff comes back to work (…) She can ask male*

> *staff about how to take care of the baby, but not questions about giving birth.* (Hmong, MFG)*

If women had access to health professionals in more informal settings, such as their homes, some preferred to speak to them there, rather than in a formal health setting.

> *I ask [name] (…) she works at the health station, so if there is anything I don't understand, I would ask her. [Name] who lives next to my house (…) She answers my questions about anything. I rarely read the handbook, I don't have time.* (Thai, PWFG)

Other women had a general aversion to asking questions of health professionals, even though they said they felt they could ask health professionals questions. They reported they were confident with the language, and they did not feel that health professionals discouraged question-asking. However, they were reluctant or 'shy' to ask health professionals about things they did not understand, which adds extra difficulty to a situation where they are required to be proactive.

> *Yes, I do want to ask but I can't speak. (…) I can speak Kinh [Vietnamese] okay (…) I'm shy [laughs]. I don't understand so that's it. I don't ask.* (Thai, PWFG)

This general aversion to question-asking may also be related to perceptions among women that health professionals may be dismissive of their questions and concerns. Several women described going to the health station when they were worried about something, and feeling they were having their concerns dismissed or effectively ignored by health professionals. One Thai woman reported she had bad stomach pain after taking iron supplements, and was worried about how often her baby was kicking her belly, but on telling the doctor her concerns 'the doctor didn't say anything.'

The challenges of interpersonal communication with health professionals extended from one-on-one interactions into the community setting. Although community health education was organised and targeted to women, it often appeared to be poorly communicated to women, or held at inconvenient times. Women who worked outside of the home in the fields often left very early in the morning, and sometimes stayed there overnight, and did not know a session had taken place until after the fact.

> *We didn't know. When we came home, they said they did a communication session. We don't know if they invited us or not but they said we weren't home.* (Hmong, MFG)
>
> *I have never been invited.* (Thai, PWFG)

Women who did attend community sessions reported that health professionals ran out of time to answer questions, adding extra barriers for women who wished to learn more. Time was also a barrier to communication during routine visits to the commune health station.

> *At the end of the session, the health staff said they ran out of time. If I don't understand something, I could attend the next session or go to the health station to ask health staff there.* (Hmong, MFG)

> *When I go to the health station, the health staff are always busy, there are so many patients, so many people need them. If I ask them, they wouldn't have time for other people.* (Thai, PWFG)

5.5 Discussion

Ethnic minority women in DBP generally expressed an eagerness to learn more about pregnancy and newborn care. The health information they did recall receiving from health professionals was didactically delivered, non-specific, and often poorly tailored to their situations as ethnic minority women. Health professionals can act as facilitators for ethnic minority women's understanding of health information, but with the pervasiveness of didactic, one-way communication from health professionals in practice, the onus was placed on women to take a more active role in their communication with health professionals in order to meet their information needs. This may not come easily to them due to challenges including gender, language, time constraints, reluctance to ask questions, and a perceived lack of interest or sympathy from health professionals when women raised concerns about their pregnancies. Additionally, there is a growing reliance on giving women written information, in the form of the MCH handbook. These factors resulted in women interpreting information in various ways, which in turn impacted their health behaviours during pregnancy and motherhood.

There has been little previous research focused on patient-provider communication in Vietnam, generally or in a maternal health context, let alone among a predominantly ethnic minority population. There has been some research into patient preferences regarding patient-provider communication in other Asian LMICs, which has found that people have different communication needs and preferences based on local social norms and cultural context (including traditionally hierarchical social structure) [30,44]. However, these norms do not necessarily mean that patients in these countries are not open to a more patient-centred communication approach [29,45]. In Vietnam, a study of decision-making preferences among urban women found a desire for active participation when choosing a contraceptive method in consultation with a health professional, with an autonomous or shared decision-making approach preferred. A passive decision-making approach, in which women's concerns were secondary to the health professional's opinion, was evaluated very negatively by women. This was found despite the cultural context in Vietnam which traditionally emphasises hierarchic role differentiation and respect for authority figures [46].

Health professionals working in commune health stations were also interviewed for this study [40]. We found that the commune health professionals generally perceived the main purpose of communication being information delivery, rather than an interpersonal interaction. They perceived the effectiveness of their communication as being based on women's individual capacities to understand health information, rather than actively reflecting on the suitability of information and materials, or on their own communication skills. This is also reflected in these focus group results, as ethnic minority women and health professionals described a situation in which communication is frequently one-way, both in the clinical and community setting, and driven by the agenda of health professionals rather than by women's needs and preferences. Health professional-driven care has also been found to impact other aspects of maternal health service utilisation. A qualitative study into childbirth practices in the same province as the current study found that health services failed to accommodate local (i.e. ethnic minority) childbirth preferences, and that the low level of service utilisation was partly due to ethnic minority peoples' rejection of the medicalised, health care professional-centred approach found in public health facilities [47]. Additionally, it should be noted that health professionals working at the commune level may also be marginalised within the health system as they have limited power and autonomy themselves [16].

Both women and health professionals also described a substantial reliance on sending ethnic minority women home with often complex written information (MCH handbook) in order to meet women's information needs during pregnancy and afterwards. Our results show that ethnic minority women do value the MCH handbook, particularly as a health record. This corroborates previous qualitative findings from Cambodia which found women value the MCH handbook as a health record and information source, wish to keep it as a reference, and often share it with their family members [48]. However, our findings also demonstrate that often women cannot understand the information inside the MCH handbook, both the content and the language used. Our results indicate that the MCH handbook may be increasing rather than reducing demands placed on ethnic minority women by health professionals by being neither sufficiently understandable (people of diverse backgrounds and varying levels of health literacy can process and understand key messages) nor actionable (people of diverse backgrounds and varying levels of health literacy can identify what they can do based on the information presented) [49]. This is consistent with research in high-income countries which has demonstrated that most patient education materials are too complex for patients with limited health literacy [49].

Previous research on the implementation of MCH handbooks in other LMICs has shown success in increasing ANC attendance [48,50-52], increasing rates of delivery with a skilled birth attendant and facility-based deliveries [48], improving maternal health-seeking behaviour [53], and in increasing knowledge in specific areas about pregnancy and child health. However, previous research has specified that the MCH handbooks have likely worked to improve these indicators through enhancing communication between health professionals and pregnant women and allowing more personalised guidance to take place. Results from a study in Palestine showed that less-educated women rarely read the handbook at home, but they still became more familiar with health information in the MCH handbook through personalised guidance provided by health professionals who used the MCH handbook [53]. Our findings from DBP show that the MCH handbook is not being used to enhance communication. Instead it is often used in place of personalised and context-adjusted guidance from health professionals, with women being directed to read the handbook at home with little further explanation or opportunities to ask question of health professionals. This passive style of information delivery has previously been found to be a major barrier to health promotion activities among ethnic minority groups in Vietnam, with communication and promotion methods found to be almost entirely passive and information-based, as well as context unadjusted across ethnic groups [54]. Traditionally, formal communication structures in Vietnam have relied on a top-down, one-way hierarchical structure, which has resulted in differences between health knowledge and actual or reported health practices, with high levels of health knowledge not translating into behaviour change. These differences have been found to be due to factors including the use of top-down didactic communication styles, and improper audience segmentation, resulting in inappropriate context-unadjusted messaging and exclusion of specific groups [55]. A recent intervention to improve hypertension control has seen some success in challenging this status quo, showing the acceptability of a culturally adapted storytelling communication approach in rural Vietnamese communities. The storytelling approach was more successful in increasing hypertension medication adherence than didactic content delivery [56].

The MCH handbook used in DBP was piloted in four Vietnamese provinces (of which DBP was one) between 2011 and 2014. The MCH handbook has been evaluated qualitatively and in a pre-post study [57,58], but almost entirely from the perspective of its usefulness for health professionals and not from the perspective of pregnant women and mothers. One study [57] reported on the prevalence, fragmented implementation and amount of overlap in various MCH home-based records (HBRs) being used throughout Vietnam, and attempted to identify health professionals' and women's perceptions of using HBRs, including the MCH handbook utilised in DBP. The reported qualitative results of the study mainly discussed the user experience of health professionals, and only focused on women's preference to have HBRs integrated into one document - the MCH currently in use in DBP. Another study aimed to assess the MCH handbook in terms of changes in knowledge, attitudes and practices, and also included a qualitative element. While the pre-post study found an improvement in knowledge, attitudes and practices in maternal and child health, the reported qualitative results give little information about how women used and understood the information in their MCH handbooks, or how health professionals used the MCH handbooks as a communication tool [58].

Strengths of this study include a heterogeneous sample, a rigorous analysis process, and the involvement of local collaborators. The main limitations of this study are that Vietnamese is not the first language of the ethnic minority women living in this community, although it is the sole official language of Vietnam. Most women who participated in the study spoke Vietnamese, some with varying levels of confidence, and others needed to speak through local interpreters. However, as this study aimed to capture a wide range of experiences and opinions within the ethnic minority population, we felt it was inappropriate to exclude these women. The use of local interpreters may have also resulted in some distortions in women's responses, either self-imposed or interpreter-imposed. Local interpreters were often women of high status and influence in their villages (representatives of the VWU, village midwife, People's Committee employee), and as such women may have censored their own responses, or had their responses altered in translation. This is a cross-cultural study, and as such, some responses may have been misinterpreted by the authors. We have attempted to limit misinterpretations by conducting an independent translation of all audio data, and collaborating with a Vietnamese co-author. The data collection process and any actual or potential misunderstandings were also regularly discussed by the authors in regular meetings during data collection. Additionally, self-reported practice in focus groups may differ from actual behaviour, and there may be a related element of social desirability bias. We have tried to minimise this through the use of a neutral facilitator, and reassuring participants of the confidential nature of their participation. Furthermore, due to the nature of the qualitative approach, the generalisability of these findings may be limited. We have attempted to enhance transferability by thoroughly describing the research context and methods, and relating our results to existing evidence so that readers may better determine the relevance of these findings to other settings.

5.6 Conclusion

The MCH handbook piloted in DBP and three other provinces was earmarked by the Vietnamese government in late 2015 to be scaled up as a nationally standardised HBR document [57]. While a nationally standardised HBR will likely be a useful tool for health professionals, with 54 ethnic groups present in Vietnam, ethnic minority women in other provinces are likely to face some of the same challenges Thai and Hmong women in DBP have experienced. With the move to implement the MCH handbook across Vietnam, government officials and health professionals should be aware of the different experiences and perspectives of ethnic minority women in using the MCH handbook. The results of this study show there is much scope for improving interpersonal communication between ethnic minority women and health professionals in the primary care setting in DBP, including fostering two-way communication and patient-centred attitudes among health professionals. There is an opportunity to include communication training for health professionals along with the nationwide implementation of the MCH handbook in order to ensure that the provision of the MCH handbook enhances rather than replaces personalised communication between pregnant women and health professionals.

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Chapter 6. Distributed health literacy in the maternal health context in Vietnam (Paper 4)

This paper is a qualitative study that uses focus group data from Chapter 5, as well as data from a focus group with grandmothers of children aged under five years, and key informant interviews with village-based health workers. This study uses the concept of distributed health as a framework to investigate the impact of ethnic minority women's social and informational networks on their decision making during and after pregnancy, and in doing so extends the distributed health literacy model in order to examine potentially negative impacts on maternal and child health. This paper was published in the journal *Health Literacy Research and Practice.*

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6.1 Abstract

Background: Previous health literacy research has often focused on individual functional health literacy, ignoring the cultural contexts through which many people experience health care.

Objective: We aimed to explore the nature of maternal health literacy among ethnic minority women in a low-resource setting in Vietnam.

Methods: Using a qualitative approach, we conducted focus groups with 42 pregnant women, mothers, and grandmothers of children under five from the Thai and Hmong ethnic groups. Semi-structured interviews were conducted with key informants and thematic analysis performed.

Key Results: The findings of our thematic analysis aligned well with the concept of distributed health literacy. We found that ethnic minority women drew upon family and social networks of health literacy mediators to share knowledge and understanding, assess and evaluate information, communicate with health professionals, and support decision-making. Family members were also involved in making health decisions that had potential to impact negatively on women and children's health.

Conclusions: Family members are an important source of information for ethnic minority women, and influence decision-making. Relatives and husbands of pregnant women could be included in maternal health education programs in order to potentially strengthen the health literacy of the whole community. The distributed

health literacy concept can be utilised to strengthen health promotion messages and reduce the risk of negative health outcomes.

6.2 Background

Health literacy comprises the factors which determine the motivation and ability of individuals to gain access to, understand, communicate about, and use information in ways which promote and maintain good health [1,2]. Health literacy research has largely focused on quantitative measures of health literacy in the context of disease treatment and healthcare [3], often focusing on functional health literacy skills such as reading and numerical comprehension [4–7]. This individual function-focused approach does not fully reflect the way that people experience health care, manage health conditions, and make decisions about their health, as it obscures social and cultural context [8]. As such, there is increasing debate about the usefulness and meaningfulness of the function-focused approach across all population groups, and subsequent moves towards developing measurements that embody broader concepts of health literacy [9,10]. The focus on individual functional health literacy may be particularly irrelevant in settings where less emphasis is placed on the individual, and collective social units/structures such as families, shared norms and traditions have more influence.

Maternal health literacy broadens the definition of health literacy from promoting and maintaining good health in the individual to promoting and maintaining good health of both mother and child [11]. It is associated with children's nutritional [12] and vaccination status [13] and it has been posited that significant, rapid improvement in maternal health literacy is achievable with appropriate and targeted interventions [3,14], even when reading and other functional skills are weak [3]. Improved maternal health literacy can empower women to address factors that impact outcomes for both mothers and children [3,14,15]. To date there has been limited research on health literacy generally, or maternal health literacy specifically, in low- and middle-income, non-Western settings. The concept of distributed health literacy may provide insights into understanding and improving maternal health literacy in such contexts.

Edwards and colleagues [16] explored how health literacy is distributed through family and social networks of people living with chronic conditions. They found that people with long-term conditions drew on the health literacy skills of others, 'health literacy mediators,' in order to seek, understand and use health information, demonstrating the potential of distributed health literacy for supporting people to manage their conditions more effectively. Edwards et al. (2015) describe four broad areas of distributed health literacy, where they found 'health literacy was utilised and a range of health literacy skills and practices that were distributed around an individual by members of their social network' (p.1186-7). 1. Shared knowledge and understanding, 2. Accessing and evaluating information, 3. Supporting communication, and 4. Supporting decision-making. Previously, this model has been applied to people living with chronic conditions generally, and to people living with type 2 diabetes [17]. While pregnancy is an altered physiological state, and not a disease or condition, pregnancy is often a time when women's engagement with the health system and health information increases. Thus, the distributed health literacy model may be useful to help us understand more about maternal health literacy.

Dien Bien Province (DBP) is a mountainous province of Vietnam, predominantly populated by ethnic minority groups (80% of population) [18] who experience poorer health and economic outcomes than the Vietnamese average [19]. Maternal and child health outcomes in DBP are particularly poor [20,21], especially given Vietnam's status as a 'fast-track' country for achieving MDGs 4 and 5 (i.e. on track in 2012 to meet MDG targets ahead of comparable countries) [22]. A key strategy in Vietnam's success has been expanding access to health facilities and increasing the health workforce in order to provide access to essential services, including skilled birth attendance and emergency obstetric care [23]. However, this success has not been shared equally. Ethnic minority women are less likely than the Kinh majority to access antenatal care (79.9% v. 99.2%) or give birth with a skilled attendant present (70.7% v. 99.4%) [24], and ethnic minority status has been found to be a significant determinant of health service utilisation [25]. Improving quality of care and equitable access to care for ethnic minorities and other marginalised groups continues to be a significant challenge for the Vietnamese government [23].

Previous research has shown that health professionals in DBP generally perceive communication issues as being related mostly to patient factors, such as language barriers, education, and literacy levels [26]. Many ethnic minority women do not understand information provided by health workers about pregnancy and childbirth, with health professionals increasingly relying on providing written information over interpersonal communication [27]. Health literacy has not been measured on a population level in DBP, but it is reasonable to assume a low level of health literacy given lower levels of educational attainment [28,29], and the absence of functional literacy and Vietnamese language skills, particularly among ethnic minority women [18].

This study used a qualitative method to examine the nature of maternal health literacy in DBP by exploring which formal and informal sources of health information ethnic minority women access and trust, and how women draw on these resources and their social and family networks to apply their understanding of health information, and make health decisions.

6.3 Methods

Methods for the overall study have been published elsewhere, with the study setting, recruitment, data collection and analysis processes extensively described [27]. Relevant modifications and details of additional participants are described below.

6.3.1 Study design

This study utilises a qualitative, focused ethnographic design [30], and takes a pragmatist theoretical stance [31]. The focused ethnographic approach allowed us to centre culture while containing our focus to specific research objectives, with the field of investigation determined by pre-existing problem-focused and context-specific research questions [30,32,33].

6.3.2 Study location

The study was conducted in October 2015 in Tuan Giao District, DBP. This is a rural district, 80 kilometres from the provincial capital divided into 19 communes, with a total population of approximately 82,000. The study was conducted in five communes, selected in cooperation with the District Health Service.

6.3.3 Recruitment

Ethnic minority women who were currently pregnant, or mothers or grandmothers of children under five years old, were eligible to participate in focus groups, and were recruited with the assistance of the Vietnamese Women's Union (VWU). Key informants were recruited with the assistance of the VWU and commune health station staff. All participant information and consent forms were provided to participants in Vietnamese, or translated orally into local languages (Thai and Hmong) if required. All participants gave written or oral consent. All participants were compensated 100,000 Vietnamese dong (4.45 USD) for their time. Ethics approval was obtained through the University of Sydney Human Research Ethics Committee. The research plan was approved by the DBP Public Health Service, the Tuan Giao District Health Service, and the VWU.

6.3.4 Participants

We conducted eight focus groups with 42 community participants in five villages. Seven focus groups were conducted with pregnant women and/or mothers of children under five years, and one focus group was conducted with grandmothers. Key informant interviews were conducted with one village health worker, and one village midwife (See Table 6.1 for participant characteristics).

Table 6.1: Participant characteristics

Participant characteristics	Number
Pregnant women & mothers of children under five years	
Age, years (range 18 - 33)	
< 20	7
20 - 24	21
25 - 29	5
30 - 34	4
Ethnicity	
Thai	28
Hmong	9
Years of school	
None	5
1 - 6	10
7 - 12	19
Post high school	3
Number of children	
0	9
1	14
2	12
3	1
4	1
Currently pregnant	16
Grandmothers of children under five years	
Age (years, range 47 – 55)	
45 - 49	2
50 - 54	2
55 - 59	1
Ethnicity	
Thai	5
Years of school	
None	1
1 - 6	4
Number of children	
2	1
3	1
4	2
5	1
Number of grandchildren	

1	1
2	2
3	0
4	1
5	1
Key informants	
Age (years, range 25 – 27)	
25 - 29	2
Ethnicity	
Hmong	2
Years of school	
7 - 12	2

We purposively sampled for diversity of ethnicity, language spoken, parity, remoteness from District Hospital (determined at the commune level, range 4 – 45 kms), and degree of health service utilisation (so as to include women who had previously given birth at health facilities and women who had given birth at home). We believe that the variation of experience present in the data are sufficient to adequately support the reported results and answer the research questions [34].

6.3.5 Data collection

Focus groups were made up of between 4 and 8 women, and lasted between 43 minutes and 1 hour 53 minutes. We conducted seven focus groups in the homes of community leaders, and one in a community hall. Each session was made up of several sections: introduction and consent process, warm-up discussion, focus group discussion (see Appendix B for topic guides), and a closing demographic questionnaire. Focus groups were conducted primarily in Vietnamese, with some interpretation into Thai and Hmong, facilitated by a female Vietnamese researcher with a nursing background (DTL), under supervision of a female Australian PhD student with extensive qualitative research experience (SM). Interpretation into local languages was performed by local women, including representatives of the VWU, the People's Committee, and a village midwife, who also gave a key informant interview. We audio recorded focus groups and took detailed field notes. One key informant interview was audio recorded; the other was documented by field notes as the participant did not wish to be recorded.

6.3.6 Data analysis and analysis framework

An independent third party translated audio recordings and transcribed them verbatim in English. Data were managed using NVivo 11 software. We conducted a thematic analysis, employing an iterative inductive (data-driven) and deductive (researcher-driven) approach [35]. Upon completion of initial coding, themes and relationships between and among codes were identified. These emergent themes were found to be aligned with Edwards and colleagues' conceptualisation of health literacy as a distributed, shared asset [16], which provides the broad framework for the presentation of our findings. Although this conceptualisation has previously been applied to people living with chronic conditions, due to the alignment of our analysis and the distributed health literacy concept, we feel that the application of the model to the maternal health context is appropriate.

6.4 Results

The results of the thematic analysis are presented under four subsections corresponding to the areas of distributed health literacy [16], described above. The fourth subsection on supporting decision-making also discusses the theme of non-supportive decision-making, where the influences of social networks and collective decision-making suggested a negative impact on health behaviours.

6.4.1 Shared knowledge and understanding

Shared knowledge and understanding was an important element of distributed health literacy among Thai and Hmong women.

Experienced women are knowledgeable women

Pregnant women and mothers of young children drew on formal and informal sources of information, with particular emphasis placed on knowledge shared by older, experienced women, especially within the immediate family group. Women who had given birth and raised children were seen as trusted sources of information. Their experiences conferred considerable perceived credibility to their knowledge and advice.

> *My experienced mothers – I follow their advice. They have had many children so they must know a lot, so I just follow them.* (Thai, mothers of children under five years focus group [Mu5FG])

Knowledge shared by older women was seen as an inheritance of sorts; with understanding of maternal and child health imparted to younger generations as they went through the experience of pregnancy and becoming a mother, like their mothers before them.

> *It is passed down from my mother to me to my daughter.* (Thai, Grandmothers focus group [GFG])

Women who had experienced pregnancy and motherhood were also frequently mentioned as sources of information for women in recognising signs of pregnancy and encouraging them to take a pregnancy test.

> *I felt tired so I asked my mother and my sister. My mother told me to use the test stick and it showed that I'm pregnant.* (Thai, mixed focus group – pregnant women and mothers of children under five [MFG])

> *Other women told me that if I don't get my period, I have to buy pregnancy stick. I learned from them.* (Hmong, Mu5FG)

Traditional knowledge: 'That's how Thai people do it.'

A notable time when shared knowledge came to the fore was during the postpartum period. Thai women talked about their postpartum practices, dictated by tradition and shared knowledge among Thai people. Thai women took herbal baths multiple times a day for approximately one month postpartum. The mother or mother-in-law of the postpartum woman generally prepared the baths, as they knew which herbs to use.

> *All kinds of herbs. Only old people know. All Thai women do that after they give birth.* (Thai, pregnant women focus group [PWFG])

This particular practice seemed to be considered a compulsory practice among the Thai participants. However, the practice was adapted to accommodate the fact that women are now more likely to give birth in a facility, compared to their mothers. Thai grandmothers discussed how they implemented and adapted traditional postpartum bathing practices within their families.

> *Women who have just had a baby should take a bath three times per day. Early morning I would go pick the herbs and make a bath for my daughter. She has to do that for one month after giving birth. That's how Thai people do it. Now pregnant women give birth at the hospital and only bathe once a day. But when they come home, we tell them to take herbal bath too. So that they're healthy. And must be herbal baths, not regular baths.* (Thai, GFG. Quotes from multiple participants edited together for clarity.)

6.4.2 Accessing and evaluating information

Family members as (health) literacy mediators

According to provincial policy, all women in DBP receive a Maternal and Child Health Handbook when they present to a health station for antenatal care, however not all of the women who participated in the study could read it. Some participants (the majority of the Hmong women and Thai grandmothers) had limited Vietnamese language and reading skills. More educated family members, particularly husbands, were called to act as literacy mediators, to help women access information.

> *Her husband read the handbook and explained to her a bit* (Hmong, MFG, through local translator)

Other women mentioned reading information in the Handbook themselves, then discussing it with family members, such as their husband and parents.

> *She said she often reads the handbook but there are parts that she doesn't understand. Then she asks her husband to read the advice in there.* (Thai, PWFG, through local translator)

Community members as health literacy mediators

For one group of Hmong women in our sample, the village midwife was an important health literacy mediator, providing advice and subsidising or sometimes filling gaps in communication from health professionals at the health station or hospital, where Hmong women often experienced language barriers. For these women, access to the village midwife meant that they did not need to spend time seeking out and evaluating health information on their own because there was someone in, and from, their community who could give them advice in their language.

> *I know it from [name of village midwife]. I receive nothing when I go to the health station or hospital.* (Hmong, Mu5FG)

> *I'm just like them and they're just like me. The village health worker is a man and couldn't do this work so I was trained to do this. I live in this village my whole life.* (Hmong, village midwife)

The midwife was able to 'find and visit' women opportunistically when she heard about new pregnancies, and visited women at night in their homes, when their work was done and the women were available to talk.

6.4.3 Supporting communication

As described above, social networks were often vital for facilitating the exchange of information between health professionals and ethnic minority women, acting as literacy and health literacy mediators. Participants did not explicitly discuss how their family and social networks supported them with routine direct interactions with health professionals (e.g. attending antenatal care check-ups). However, there were cases where family members, particularly older family members, took on roles advocating for women within the health system, particularly when women's symptoms were dismissed and/or misdiagnosed. One woman described an incident where her parents and parents-in-law disagreed with health station staff when she was experiencing stomach pain and nausea. Her family was certain she was pregnant, despite a negative home pregnancy test. Health staff at the commune health station were unable to diagnose her pregnancy after a week of inpatient care. Eventually her father-in-law insisted she receive an ultrasound to confirm the pregnancy.

> *I stayed at the health station for one week, and they didn't know that I'm pregnant either. They said it's just stomach-ache and nausea. They told me to get the referral to transfer to the district hospital. My parents didn't want me to go to the hospital, they insisted that I was pregnant.* (Thai, MFG)

6.4.4 Supporting (and not-supporting) decision-making

Family members played an essential role for many women in making decisions around accessing antenatal care and delivery location. Decisions were often made by family members, particularly parents or parents-in-law, with what seemed to be limited input from pregnant women. This collectivist, family-based approach to decision-making resulted in family networks both supporting but also undermining women's preferences.

> *My family also supported and encouraged me to give birth at the hospital. If I gave birth at home, I wouldn't know anything.* (Thai, Mu5FG)

> *One time I wanted to go to the health station for a check-up but my parents said I didn't have time so I shouldn't go. I already had one check-up before so that's enough.* (Hmong, Mu5FG)

Women often said that they would listen to the advice given by health professionals over conflicting advice from their families. However, it appeared that in practice, family members' preferences often prevailed, particularly when making decisions about when to access health services, and/or if there were logistical obstacles to overcome in accessing services.

Choosing where to give birth

When choosing where to give birth, traditional customs seemed to be less influential than family influence. Family influence could both facilitate and prevent women giving birth at a health facility. However, family members' decision-making often seemed to be influenced by circumstances relating to the timing of labour and delivery, availability of safe transportation (typically a motorbike), and financial considerations, rather than a rejection of facility-based births. Indeed, families of pregnant women often stated in-principle support of facility-based births. The participants in the grandmothers' focus group were particularly positive about the improvements in maternal health and services between their time and their daughters' generation.

> *In the past we gave birth at home but it was very difficult. Now at the hospital, pregnant women are welcomed and supported by doctors.* (Thai, GFG)

However, in practice, women's and families' preferences regarding delivery location were sometimes influenced by the circumstances outlined above, particularly if the risks and/or costs of travelling to a health facility were perceived by family members to outweigh the benefits. Some women's decisions were strongly influenced by family members, or the decision was taken out of their hands altogether.

> *I was afraid that I'd never given birth before. My parents said that my sisters all gave birth easily, my mother too, so it's ok to give birth at home.* (Thai, Mu5FG)

The woman speaking in the following quote went into labour at night, during the rainy season. She wished to deliver in hospital, but circumstances combined with her mother-in-law's assessment of the risk in travelling to hospital saw her deliver at home instead.

> *I still thought I should go to the hospital but my mother-in-law said the road is too slippery. And my father-in-law was drunk. Many people [advised me to give birth in hospital], but my mother-in-law decided already.* (Thai, Mu5FG)

Non-supportive decision-making

A few cases of what could be referred to as non-supportive decision-making – where decisions were made that did not align with women's preferences and may impact negatively on women's or children's health – also arose, reflecting that women sometimes have little power to make decisions about their pregnancy and their children's health. One woman described how she was pressured by her husband to have a son, having already given birth to four daughters (three surviving). At the time of the study, she was pregnant, and planned to go to the provincial capital to find out the sex of her fetus via ultrasound, and have an abortion if it was another daughter. She would continue to try to have a son to fulfil her husband's wishes, against the advice of health staff, and despite financial strain.

> *My husband (…) tells me to have a boy, otherwise there's no one to look after the house. [Health staff] told me to stop but (…) We don't have a boy so I have to keep giving birth (…) We're in such a difficult situation. If we have too many children, we can't support them all.* (Thai, PWFG)

Another woman mentioned that exclusive breastfeeding could be interrupted and weaning commenced earlier than advised if parents-in-law were strict and demanded that a new mother return to work.

> *If my parents-in-law are strict and hard to please, I can't keep staying home with my baby for more than 2 or 3 months after giving birth. I have to go to work. I can't breastfeed my baby, then I have to wean.* (Thai, Mu5FG)

6.5 Discussion

These results demonstrate that distributed maternal health literacy is evident in DBP. Ethnic minority women drew upon family and social networks in order to share knowledge and understanding, assess and evaluate information, communicate with health professionals, and support decision-making. These results are also supported by our previous studies in DBP. An interview study with health professionals demonstrated that they often enlisted women's family and community members to act as interpreters, and advised women to ask their family for assistance in assessing written health information, placing much of the burden of communication issues and understanding health information on ethnic minority women and their families [26]. We also found that women's social and family networks can contribute to non-supportive decision-making, that is, decision-making that did not align with women's stated personal health and reproductive preferences, and may lead to negative health outcomes.

Family networks play an important role in both facilitating and, importantly, delaying access to care, particularly during labour. Women in this study described situations in which their decision about where to give birth was influenced or overruled by older family members, particularly when there were extenuating circumstances, such as wet weather or lack of safe transportation. Particularly in the absence of an obstetric complication, this could be perceived as a rational benefit/harm trade-off given that the most readily available transportation for a labouring woman is the back of a motorbike, driving on narrow paths. These factors affect and delay the decision to seek care, as well as potentially delay arrival at a health facility. They correspond with

Thaddeus and Maine's three phases of delay framework [36]. The framework outlines the three phases of delay between the onset of an obstetric complication and the outcome of maternal death; 1. Deciding to seek care, 2. Identifying and reaching a medical facility, and 3. Receiving adequate and appropriate treatment. The framework was subsequently extended to include preventive care-seeking for an anticipated normal delivery [37]. There are opportunities in DBP for community educational interventions around the factors influencing first and second phase delays to encourage preventive facility delivery.

Findings regarding family influence over decision-making are not unique to ethnic minority populations in Vietnam. Women's limited autonomy in decision-making should also be reflected on in regards to women's position in the family and in Vietnamese society more generally. Although women are advancing in areas such as labour force participation [38], there is evidence of son preference in an increasing male-to-female sex ratio at birth in Vietnam, impacted by increasing access to inexpensive ultrasound technology [39,40]. Women in our study spoke openly about finding out the sex of their baby via ultrasound, although prenatal sex identification is illegal. The influence of traditional gender roles is still strong within the domestic sphere, and the needs of the family dominate the needs and rights of the individual [18,41]. Previous research in Vietnam has also found that pregnant women may hold relatively little individual autonomy to make decisions about their health [41], particularly in relation to their husband and parents-in-law, as families may collectively take responsibility for decision-making. For this reason, health professionals and community leaders need to ensure that those family members who *do* make health decisions are involved in discussions about maternal and child health.

Wider peer and community networks are important in improving health literacy in low- and middle-income settings [42]. A cohort study in Ghana found that maternal health literacy could be improved through group antenatal care, with women who participated in group care demonstrating an improved ability to understand and operationalise health information over those who received individual antenatal care [43]. In Vietnam, community-embedded workers such as trained ethnic minority village midwives have been shown to be important resources for ethnic minority women [44], which was also supported by our findings. Community and group-based health promotion activities are already common in Vietnam [45–47], but could be better utilised to improve the health literacy of the wider community and families, as well as pregnant women and mothers of young children. Previous maternal and child health education activities in DBP have successfully engaged and involved community leaders [48], and older women willingly took part in the current study, which suggests that they may be interested in being involved in maternal and child health promotion activities. Further research is needed to fully ascertain the feasibility and acceptability of involving family members and other influencers in health promotion activities and education.

Strengths of this study include a heterogeneous sample, a rigorous analysis process, and the involvement of local collaborators. The main limitation of this study is that Vietnamese is not the first language of the ethnic minority people living in this community. Most women who participated in the study spoke Vietnamese; others needed to speak through local interpreters. The use of local interpreters may have resulted in some distortions in women's responses, either self-imposed or interpreter-imposed. This is a cross-cultural study, and as such, some responses may have been misinterpreted by the authors. We have attempted to limit misinterpretations by conducting an independent translation of audio data, and collaborating with a Vietnamese co-author. Any actual or potential misunderstandings were discussed by authors in regular meetings during data collection. Additionally, self-reported practice may differ from actual behaviour, and there may be a related element of social desirability bias. We have tried to minimise this through use of a neutral facilitator, and assuring participants about confidentiality. Finally, as this is a qualitative study, the generalisability of these findings may be limited. However, we have taken several steps to enhance transferability and assist the reader to determine the relevance of these findings to other settings, by thoroughly describing the research context and methods [49], and relating our results to existing models and evidence from the literature.

6.6 Conclusion

Family members are an important source of information and advice for pregnant ethnic minority women, and an important influence on decision-making during pregnancy and childbirth. Distributed health literacy can be used both to strengthen health promotion messages, and to reduce the risk of negative health outcomes for women by increasing understanding among key family and community members. Health information is often delivered to ethnic minority women in a way that places the responsibility of understanding and operationalising information on individual women. In practice, health knowledge and the responsibility for making decisions about pregnancy and childbirth are distributed through women's social and family networks. However, this knowledge may be based on personal experience and cultural traditions rather than medical evidence, which has implications for health outcomes. Older relatives (particularly mothers and mothers-in-law) and husbands of pregnant women could be included in community maternal health education in the future, although further research is needed to ascertain feasibility and acceptability. This may strengthen the health literacy of the community as a whole, and the distributed health literacy resources that ethnic minority women draw upon to maintain their health and the health of their children.

6.7 References

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Chapter 7. Discussion and conclusion

7.1 Overview of thesis

This thesis presents an in-depth exploration of the experiences and perceptions of ethnic minority women and health professionals in Dien Bien Province (DBP), Vietnam. Specifically, this thesis used a qualitative approach to explore the communication experiences of both groups within the primary maternal health care context, and the factors underlying their communication, including cultural and ethnic diversity, and health literacy. This body of work, which includes three published/accepted manuscripts, and one submitted manuscript, adds new knowledge to the limited research exploring health literacy and patient-centred communication in low and middle-income countries (LMICs), and in Vietnam specifically.

In this chapter, I will bring together the findings from the four manuscripts presented in Chapters 3 to 6, and synthesise them using a health promotion framework that addresses the influence of culture and emphasises a strengths-based approach, in order to discuss future directions and implications for health literacy and communication research and interventions with ethnic minority communities in DBP. Finally, I will discuss implications for future health literacy and communication research in LMICs more generally.

7.2 Summary of principal findings

My study participants included primary care health professionals, ethnic minority (Thai and Hmong) pregnant women, mothers and grandmothers of children aged five years and under, and village health workers living and working in Tuan Giao District, DBP, Vietnam. Taken together, the findings from this thesis provide a critical lens to explore how systemic health and ethnic inequities both reinforce and are reinforced by poor communication between health professionals and patients, and inadequate, inappropriate information provision. While ethnic minority women's experiences of, and interactions with, health services and health professionals are complex and diverse, overall there is considerable scope for improvement in communication between health professionals and ethnic minority women (and by extension ethnic minority patients generally), which may have the potential to improve the quality of care provided to ethnic minority communities.

The first manuscript (Chapter 3) presented in this thesis, using data from both health professional interviews and community focus group discussions, reports that the barriers and facilitators to accessing maternal health care extend beyond the 'obvious' reasons of physical and financial accessibility and availability of health facilities. The main barriers discussed included the perception of health facilities as being oriented towards treating illness, rather than maintaining good health or prevention of illness, perceptions of quality of care in health facilities that impact decisions about whether to access maternal health care, and poverty that impacts on the ability of the most vulnerable women to access higher quality health facilities. In practice, this means that poorer, less-educated women have extra impediments to accessing appropriate care, such as lack of transportation, limited ability to absorb the impact of lost income, and limited or inconsistent access to health professionals who speak their language.

The second manuscript (Chapter 4) provided an in-depth qualitative exploration of one specific aspect of quality of care, patient-provider communication, looking at 22 primary care health professionals' experiences and perceptions of communicating with ethnic minority women. While they generally believed communication to be an important part of providing care, they tended to perceive communication as a one-way means of delivering health information to patients, rather than a dynamic interaction between health professional and patient. Communication difficulties were largely seen as being due to patient factors, such as limited language and literacy abilities, rather than being due to their own abilities as health communicators. On the whole they demonstrated limited scope to reflect on their own communication skills, and the value of communication in strengthening community health literacy and relationships between health professionals and patients.

The third manuscript (Chapter 5) presents ethnic minority women's experiences and perceptions of communicating with health professionals in the maternal care context, using data from focus group discussions with 37 Thai and Hmong women. Their reported experiences supported our findings that health professionals tended to perceive of communication as being a one-sided means for delivering health information, and that health information was often non-specific, and non-tailored. Women faced barriers to communicating with health professionals, including gender difference, language difference and ability, reluctance to ask questions, perceived lack of interest and time from health professionals, and limited reading ability in the face of increasing reliance on written health information as a substitute for face-to-face communication.

The fourth manuscript (Chapter 6) used data from focus group discussions and key informant interviews, utilising the distributed health literacy model to explore the nature of health literacy in ethnic minority communities, and to emphasise the importance of social, and especially family networks, in supporting pregnant women and mothers by sharing knowledge and understanding, assessing and evaluating information, communicating with health professionals, and supporting decision-making, particularly the decision to seek skilled care. This paper also extended the distributed health literacy model by highlighting how women's networks contributed to non-supportive decision-making that did not align to women's stated preferences for their own care.

7.3 Future directions for health literacy and communication research and interventions in DBP

In this section, I will synthesise the findings of this thesis using a culture-centred health promotion model as an organising framework in order to make recommendations for future health literacy and communication intervention. The PEN-3 model [1,2] (named for the three components of the model's three domains; each of the three domains incorporates three factors to form the acronym PEN. See Figure 7.1) emphasises a strength-based approach, highlighting positive cultural factors than can be built on to improve health outcomes.

The PEN-3 model [1,2] provides a useful framework for thinking about the barriers and facilitators to accessing and improving care and communication by centring culture. The PEN-3 model is a culture-centred health promotion framework that addresses the influence of culture and emphasises a strengths-based approach to health promotion and public health interventions, while centralising culture in finding solutions to health problems [3,4]. The model facilitates the examination of cultural practices that underpin positive health behaviours and outcomes, while identifying cultural factors that may negatively impact health, and acknowledging cultural factors that have a neutral impact on health behaviours and outcomes [3]. By highlighting positive and neutral cultural factors, negative cultural factors can be more clearly seen within cultural contexts and structures [5]. The PEN-3 model has previously been used to facilitate the inclusion of culturally relevant factors in intervention development [6–8], as well as to guide data collection, analysis, and interpretation [6,9–14].

The model consists of three interconnected domains (Figure 7.1): Cultural Identity, Relationships and Expectations, and Cultural Empowerment. The Cultural Identity domain is used when designing interventions to identify the point of intervention (Person, Extended family, Neighbourhood). The other domains, Relationships and Expectations (Perceptions, Enabler, Nurturers) and Cultural Empowerment (Positive, Existential, Negative) are useful for examining underlying cultural practices. Table 7.1 cross-tabulates the Relationships and Expectations and Cultural Empowerment domains in to a 3 x 3 table containing nine categories [3], and presents findings related to communication between health professionals and ethnic minority women, and health literacy, across all four manuscripts presented in this thesis (Chapters 3 – 6). This approach to arranging findings provides the opportunity to examine the intersection of domains for interactions [3,15,16] and identify positive cultural factors that can be utilised to plan contextually and culturally appropriate communication and health literacy interventions [17]. Ideally, this process would be conducted with the participation of local stakeholders. Unfortunately due to the logistical and financial restraints of this study a participatory process was not feasible. However, this synthesis and subsequent recommendations can provide a useful starting point for future engagement.

Figure 7.1. PEN-3 cultural model

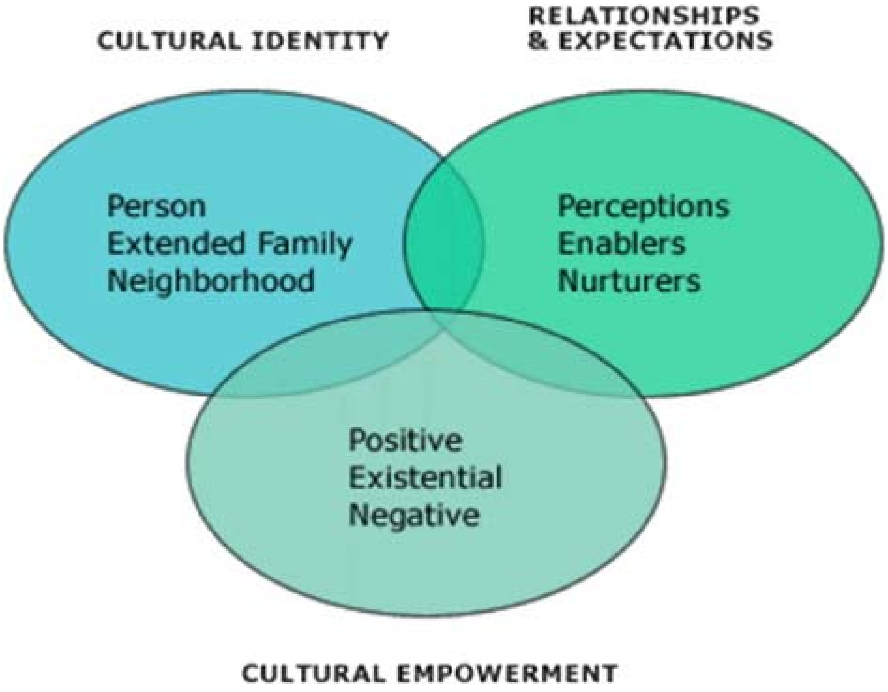

Figure by Iwelunmor et al. [3] used with permission from Taylor & Francis

Table 7.1. Findings organised according to PEN-3 domains (Relationships & Expectations, Cultural Empowerment)

		Cultural Empowerment		
	Domains	**Positive**	**Existential (Neutral)**	**Negative**
Relationships and Expectations	**Perceptions**	Positive perceptions – *Knowledge, attitudes, and beliefs (KAB) that have a positive impact on communication and health literacy* • Health professionals (HPs) perceive communication to be important • Increasing levels of trust in HPs (particularly hospital-based HPs) and valuing of medical training/knowledge • Ethnic minority women (EMW) value health, pregnancy, ability to grow their family • Belief that community health knowledge is improving • EMW have some knowledge about contraception, family planning, recognising signs of pregnancy • EMW express desire to learn more about health • Some EMW worry about safety of giving birth at home • Accessing antenatal care (ANC) i.e. 'check-ups' and giving birth	Existential perceptions - *KAB that have a neutral impact on communication and health literacy* • Deference shown to people with higher status (older and male family members and health professionals) • Pregnancy is a normal physiological state, not an illness • Focus on reactive rather than preventive care - HPs main role is to react to/treat health problems and illness • Competing priorities for pregnant women, particularly if they are well – work, lost time and income, other children, transport	Negative perceptions - *KAB that negatively impact on communication and health literacy* • HPs mainly perceive communication and information delivery as a one-way means to patient compliance • Traditional, culturally reinforced communication style of HPs is didactic and one-way • Two-way communication (i.e. listening to patients) not prioritised by HPs • EMW reluctance to ask HP questions – 'shyness', do not want to use up HPs time, feel dismissed by HP • EMW reluctance to discuss sensitive issues with male HPs and HPs from other ethnic groups • Stigma around pregnancy out of marriage and underage pregnancy

		in a health facility increasingly normalised (to varying degrees across communes) - Belief that health services have generally improved - Some EMW believe that it is safer for first child to be born at a health facility		- EMW prior poor experience with HPs contribute to negative perceptions - Belief primary care facilities are of low quality (HP and EMW perception) - Judgemental attitudes from HPs towards ethnic minorities - Some HPs perceived to lack skills and confidence
	Enablers	Positive enablers - *availability, accessibility, acceptability and affordability of resources needed to support improved communication and health literacy* - Availability of health stations, ANC, and village health workers (VHWs) in all communes, staffed with ethnic minority health professionals. - Ethnic minority village midwife working in one study commune - Different levels of health services available (commune, district, private) - Mobile ANC and vaccination in villages is common - Infrastructure improvements have made health stations more physically accessible to most people	Existential enablers - *availability, accessibility, acceptability and affordability of resources that are traditionally available in the community or society for support of improved communication and health literacy* - Community meetings and communication activities about health are common - Strong hierarchical political and social structures present with active communication between levels - Family and traditional (i.e. untrained) midwives support women during labour at home - Traditional medicine practices	Negative enablers - *lack of available, accessible, acceptable and affordable resources needed to promote improved communication and health literacy* - Some commune health stations lack HP who speak ethnic minority languages, and lack female HPs - Primary written information source given to women not accessible/understandable for women with low (health) literacy/Vietnamese language ability - Lack of obstetric facilities in some commune health stations - Community meetings and communication activities about health often not communicated

		• Increased access to mass media and internet		to target audience, held at inconvenient times, etc • Administrative issues with government health insurance blocks access to free care • Lack of safe and affordable transport for labouring women • Inconsistent supply of medication and contraceptives to some health stations
	Nurturers	Positive nurturers - *influences of significant others and community contexts in improving communication and health literacy* • Maternal health literacy is distributed among family and community members • Family members act as (health) literacy mediators • People feel social obligation towards extended family members • Family members cover workload for pregnant women / new mothers • Family members (older women) value health services that were not available in the past	Existential nurturers - *influences of significant others and community contexts in improving communication and health literacy within framework of traditional values and practices* • Traditionally women deliver at home • Influence of traditional healers on whether to utilise health services • Collectivist decision-making is common • Village midwife as a source of health information and support	Negative nurturers - *influences of significant others and community contexts in negatively impacting communication and health literacy* • Son preference among family members • Older family members may think preventive maternal healthcare is unnecessary • Family members may prevent women from accessing health services • Family needs woman's income (during pregnancy and post-partum)

Based on the synthesis of findings in Table 7.1, I have identified three main areas where a health literacy approach [18] could potentially be applied to improving communication between health professionals and ethnic minority women in the maternal health context, using a strengths-based approach based on positive and existential perceptions, enablers and nurturers. Firstly, communication and health information are valued and perceived as important, although the current dominant communication style is didactic and health-professional centred. This section is informed by the factors identified under 'Perceptions' in Table 7.1. Secondly, physical and social infrastructure for community-based health communication and health literacy activities already exist, however these should be made more available, accessible, and acceptable. This section is informed by the factors identified under 'Enablers' in Table 7.1. Thirdly, the family is a vital social and decision-making body for ethnic minority women, and families could be given more opportunities for involvement in health communication and health literacy education. This section is informed by the factors identified under 'Nurturers' in Table 7.1.

7.3.1 Communication is valued and perceived as important ('Perceptions')

The findings show that communication is already valued and perceived as important by health professionals working at the primary care level, and ethnic minority women (both mothers and grandmothers of children under five) value the knowledge and medical expertise of health professionals. Improving communication between health professionals and ethnic minority groups is also a stated priority of local stakeholders, including officials in the provincial and district public health services and the Vietnamese Women's Union (VWU). Health professionals perceive that ethnic minority women have increased their utilisation of maternal health services, but their use of health services is sensitive to the perceived quality of those services, including the quality of communication and interpersonal relationships between health professionals and ethnic minority patients.

A health literacy approach should be applied to future communication training of health professionals, focusing on the oral communication strategies outlined in Chapter 5: 1) the use of relevant action-oriented directives that clearly explain concrete actions that patients can take given their individual circumstances, 2) encouraging patients to ask questions, and 3) using teach-back techniques to confirm patient understanding and identify limitations in a non-shaming way [18,19]. This approach recognises that health literacy extends beyond written literacy skills to speaking and listening skills, in keeping with Harrington and Valerio's model of verbal exchange health literacy [20]. This model emphasises the importance of spoken communication between health professionals and patients, which is particularly important for information provision for LMIC settings with low literacy and education rates.

Spoken communication is also vital for building a foundation of rapport and trust between health professionals and patients. Strengthening the relational aspects of communication could allow the strategies mentioned above to be related to patients' individual circumstances, enabling a relationship where patients have the confidence to ask questions and interact meaningfully with health professionals. These aspects can improve clinical outcomes [21] and strengthen the interaction between health professionals and patients. For example, in a recent discourse analysis study, health professional interactions that displayed health professionals' empathy for patients lasted longer, and patients elaborated more on their concerns, demonstrating rapport and trust [22]. Relational aspects of communication such as communicating empathy, and the development of patient empowerment through the health professional/patient interaction, can also be strengthened through communication training for health professionals [21,23].

Communication training for health professionals should also be accompanied by training for ethnic minority women. Educational interventions have successfully coached patients to ask health professionals questions that can improve patient-health professional communication and information quality [24–27], and influenced attitudes towards question-asking [28]. The attitude towards question-asking may be particularly relevant in this setting, given our findings that some women were reluctant to ask health professionals questions. Some of this reluctance may be due to inherent health professional characteristics such as male gender or being from a different ethnic group, which was found to inhibit some women from discussing 'sensitive' topics. However, women also mentioned a reluctance to take up health professionals' time with their questions; for others, the idea of asking health professionals questions did not seem to occur to them as an option. Muscat and colleagues [28] highlight the importance of role expectations in the verbal exchange between health professionals and patients, pointing out that behaviour such as question-asking is not only influenced by an individual's skills and self-efficacy, but also by attitudes and social influences [29]; possessing the cognitive skills to ask health professionals questions may be irrelevant if the patient perceives asking questions to be inappropriate [30].

These oral communication strategies can complement existing, widely disseminated patient resources, such as the Maternal and Child Health (MCH) Handbook. Our findings suggested that currently, health professionals may have become over reliant on the written information in the MCH Handbook, and that this resource is being used to replace rather than supplement tailored, interpersonal communication. Evidence suggests that particularly for less-educated women, the MCH Handbook is more effective as a health communication tool when paired with personalised guidance from health professionals, as these women are less likely to read the handbook themselves at home [31]. This was also the case with many ethnic minority women who participated in our study, particularly Hmong women with limited Vietnamese language speaking and literacy skills. Younger cohorts of women of childbearing age are perhaps more likely to speak and read Vietnamese as school enrolment and literacy rates gradually trend upwards in DBP and Vietnam as a whole [32,33]. However, it should be noted that even literate, Vietnamese speaking women who participated in the study reported that they did not understand large amounts of information in the MCH Handbook, emphasising the continued importance of fostering improved oral communication of health information.

These strategies emphasise improving how health professionals deliver information and give instructions. Our findings regarding the prevailing didactic, one-way, paternalistic style of patient-provider communication in Vietnam suggest that health professionals must be encouraged to take a broader view of communication that moves beyond the narrow view of communication as being a useful tool for encouraging patient compliance. These findings regarding health professionals’ communication style are supported by evidence from the literature [34,35]; this communication style has been found to be a major barrier to health promotion activities with ethnic minorities [34]. However, change is possible and has been demonstrated by several communication-based interventions. A recent hypertension intervention conducted in rural Vietnamese communities demonstrated the acceptability of a culturally adapted storytelling approach for encouraging medication adherence. The storytelling approach was more successful in increasing hypertension medication adherence than didactic content delivery [36]. An intervention utilising teach-back as part of a self-management program for people with heart failure was also implemented in Vietnam, and found that patients who received an education session with a nurse utilising teach-back had improved self-care and knowledge about their condition. The intervention also showed that teach-back was an acceptable and feasible option for nurses to improve their communication with patients [37].

7.3.2 Physical and social infrastructure for community-based health communication and health literacy activities already exist ('Enablers')

The highly structured, hierarchical nature of Vietnamese society may contribute towards the didactic, one-way, top-down communication style that is predominant among health professionals. However, this same hierarchical structure can also be considered a strength, as it facilitates the organisation of community-based activities with relative ease. Every study commune had a primary health facility, staffed by health professionals, with a clear referral pathway to district level services (although women often chose to bypass the primary level facility). Health promotion and communication activities at the village and commune level, organised and facilitated by bodies such as the village and commune level People's Committee, VWU and health facilities are already common, acceptable, and physically accessible to most communities [38–40]. However, ethnic minority women mentioned in focus group discussions that these activities are often held with little or no notice (women do not realise a communication activity has occurred until after the fact), at times that are inconvenient to them, and the women have little input into the health topics covered. Ethnic minority women, including older women (grandmothers), expressed a desire to be given the opportunity to learn more about their health, and their children and grandchildren's health. Increased community consultation on the timing and content of community health promotion and communication activities could help to facilitate these opportunities.

Additionally, ethnic minority communities in DBP could be consulted about the feasibility and acceptability of group antenatal care, given that group activities are common. A Cochrane review [41] of group antenatal care compared to conventional antenatal care found that group antenatal care was generally acceptable to women in high-income countries, based on a small number of studies. Group antenatal care was not associated with any adverse outcomes for women or their babies; however, no significant benefit was found in terms of clinical indicators such as preterm birth. Group antenatal care involves the usual individual health assessment, combined with facilitated education activities and peer support [42]. To date there is limited evidence for the use of group antenatal care models in LMICs in terms of clinical outcomes [42], but a model has been developed for introducing and implementing group antenatal care in LMICs [43] and numerous studies are underway [42]. Regarding health literacy outcomes, there is some evidence from Ghana that women who participated in group antenatal care demonstrated improved health literacy, as evidenced by their superior understanding of how to operationalise health information, such as understanding when to access care, birth preparedness, and greater knowledge about breastfeeding and family planning [44]. A pilot of a group antenatal care program in two sub-Saharan African countries also found that the program empowered pregnant women in certain contexts [45], and could potentially have positive outcomes for health professionals by increasing job satisfaction and reducing stress [46].

7.3.3 The family is a vital social and decision-making body for ethnic minority women ('Nurturers')

This research also demonstrated the importance of family members in ethnic minority women's distributed health literacy networks [47]. Ethnic minority women drew upon family and social networks in order to share knowledge and understanding, assess and evaluate information, communicate with health professionals, and support decision-making. Family members can potentially have negative impacts on women's health decisions and outcomes, for example by delaying or denying access to maternal health care and contributing to non-supportive decision-making that does not align with women's preferences. However, family members' support of pregnant women, and the social obligation felt by family members towards caring for pregnant and post-partum women is also a strength to be built upon with strategies to improve the health literacy of communities as a whole. As younger women in families may have limited autonomy to make health decisions [48], those family members who do make decisions about accessing maternal health care should be included in community health promotion and communication activities. The distributed nature of maternal health literacy in DBP suggests that the family is an important target for future interventions, although further community consultation is needed to ensure the feasibility and acceptability of maternal health literacy strengthening activities aimed at family members, particularly men.

It should also be emphasised that the inclusion of family members in the decision-making process should not come at the expense of the principle of patient autonomy, despite the challenging cultural context. The inclusion of family members in maternal health literacy strengthening activities could be helpful in maintaining this balance, by allowing health professionals to engage with women and their family members together, during the early stages of pregnancy. There is also some preliminary evidence from Indonesia that context-tailored communication training for health professionals may assist health professionals to advocate for individual patient autonomy within a hierarchical cultural context, and could feasibly be adapted to other Southeast Asian settings [49,50].

7.3.4 Recommendations for future health literacy and communication research and interventions in DBP

The sections above make several recommendations for future health literacy and communication research and interventions in DBP, which I will summarise here.

Firstly, a health literacy approach should be applied to communication training of health professionals, focusing on oral communication strategies [18,19] and building relational communication skills. These are particularly important in areas like DBP where education and literacy levels are low. The oral communication strategies suggested in this thesis include the use of relevant action-oriented directives that clearly explain concrete actions that patients can take given their individual circumstance. For example, rather than non-specific messages about having 'enough nutrition,' health professionals could help pregnant women to identify nutrient-dense foods that are available to them, given their specific circumstances. Another strategy for health professionals is to encourage their patients to ask questions. This could be implemented alongside patient coaching in order to change patients' often reluctant attitudes towards question asking, as well as improve the quality of patient-health professional communication [24–28].

The other oral communication strategy suggested is the use of teach-back techniques to confirm patient understanding and identify limitations in a non-shaming way. As mentioned in section 7.3.1, at least one teach-back intervention has been successfully implemented in Vietnam [37]. Although implemented in a very different setting to DBP (an urban hospital with a Kinh majority sample), this study found evidence for prioritising teach-back as a communication strategy, particularly for low health literacy patients. Teach-back techniques may be useful in various maternal health-related situations that have been discussed in this thesis; for example, in helping pregnant women understand how and why to take iron supplements. As demonstrated in Chapter 5, ethnic minority women were often unaware of the need to take iron supplements consistently, unaware of correct dosage, and were confused by inconsistencies between what health professionals told them, and the written information in the MCH Handbook.

The remaining recommendations relate to community health education and promotion activities. While current activities are generally seen to be acceptable and physically accessible to most communities, community consultation with the intended beneficiaries about the content and the timing of these activities could be improved. Due to the distributed nature of maternal health literacy in the ethnic minority communities who participated in this study, the acceptability and feasibility of involving family members in such activities should be explored.

Finally, given that community-based group activities around health are already common, the acceptability and feasibility of group antenatal care could be explored in consultation with ethnic minority communities in DBP, as well as other demographically similar areas in Vietnam.

7.4 Future directions for health literacy research in low and middle-income countries

This thesis adds to the small but growing body of research investigating health literacy in LMICs, and demonstrates that health literacy can be explored in culturally and ethnic diverse, resource-constrained settings using a qualitative approach. The qualitative work presented in this thesis suggests that the application of a health literacy approach to communication skills training for both health professionals and patients in LMICs may be effective in improving communication between health professionals and patients, and possibly impact health outcomes. As mentioned above, there is some evidence from LMICs that adopting health literacy strategies for communication skills training, such as patient coaching and use of teach-back, have had positive impacts on outcomes such as self-management, knowledge, and increased question-asking in consultations; however these studies have not focused on or measured patient health literacy [25,37]. The conceptual models of the causal pathways between health literacy and health outcomes that suggest that the patient-health professional interaction may mediate the effect of limited health literacy on health outcomes remain largely theoretical [51–54] and further empirical research is required.

This research has also qualitatively explored the relationships between systemic and health inequities, communication, and health literacy. A recent editorial in *Health Literacy Research and Practice* highlighted the potential for the field of health literacy research to not only empower patients individually, but to also disrupt systems and practices that contribute to the disadvantage of individuals and communities with limited health literacy [55]. This potential is also emphasised in the Shanghai Declaration, which emphatically states that 'health literacy empowers and drives equity' [56]. Future health literacy research conducted in LMICs and among vulnerable populations should further explore the relationships between inequity, disparities, and health literacy, and how these both impact and are impacted by the quality of the patient-provider interaction.

7.5 Strengths and limitations

There are various strengths and limitations to the studies included in this thesis, which have been discussed in the preceding chapters. To briefly summarise, strengths of the individual studies included heterogenous samples of both health professionals and ethnic minority women, a high level of participation from health professionals, a rigorous analysis process and the involvement of local collaborators from the DBP Public Health Service, District Health Service, and the VWU. Limitations included language difference between researchers and research participants, the necessary use of local interpreters, reliance on self-report of participant behaviour, and the limits to generalisability of qualitative findings.

The main overall strength of this body of work as a whole is the use of methodological and data triangulation across qualitative studies, and the use of investigator triangulation in the analysis process, involving a multi-disciplinary and culturally diverse research team. There are also strengths stemming from the long-standing relationship between members of the research team and health system and community stakeholders in DBP, which enabled access to a hard to reach, vulnerable population (ethnic minority women generally, and specifically non-Vietnamese speakers). This relationship facilitated early local input into the research questions and research plan, and stakeholder support throughout the data collection period resulted in a high level of participation from health professionals and community members.

The main limitations of the research presented in this thesis are those inherent to conducting and analysing cross-cultural and cross-language qualitative research with an interpreter and translator. These limitations, and the strategies used by the research team to mitigate them throughout the course of data collection and analysis were discussed extensively in Chapter 2 of this thesis. It should also be noted that these limitations would have existed had the research solely been conducted in English and Vietnamese. However, the realities of conducting research in a multiethnic, low resource setting also required the occasional ad-hoc assistance of informal local interpreters for those Thai and Hmong women who did not speak fluent Vietnamese. Despite these limitations, the inclusion of these hard-to-reach groups should also be considered a strength of the research presented in this thesis.

7.6 Conclusion

The amount of research in the field of health literacy has grown exponentially over the past two decades [57], however there is a relative shortage of research investigating health literacy in LMICs, particularly research that thoroughly considers the contextual and cultural factors that influence health literacy, a 'crucial component' [58] of health literacy research in diverse and developing regions. This thesis addresses the gap in the research into health literacy in LMICs and presents some of the first studies exploring health literacy in Vietnam, by considering the experiences and perceptions of ethnic minority women and health professionals, and applying a health literacy approach to thinking about how they communicate with each other, and how that communication could be improved.

Using a strengths-based framework [1,4], I have identified three main points for intervention using a health literacy approach to improving communication in the primary maternal health care context. Firstly, communication is already valued and perceived as important by health professionals, although communication is generally one-way and paternalistic in practice. A health literacy approach to communication training for both health professionals and community members, focused on oral communication [18,19,24–27,37] and the verbal exchange [20] can complement already existing, widely disseminated written information. Secondly, although the physical and social infrastructure for community-based health communication and health literacy strengthening activities already exists, consultation with communities, particularly women, about the content, delivery, and timing of these activities could be improved to increase their effectiveness. Thirdly, the family is a vital social and decision-making body for ethnic minority women during pregnancy. Ethnic minority women drew upon their distributed health literacy networks for information, and communication and decision-making support. This illustrates the value of the distributed health literacy model [47] for conceptualising health literacy and designing health literacy interventions in populations that place importance on collective decision-making, and where individuals may have limited autonomy to make health decisions due to the power structures within families.

These three areas also raise key challenges. The dominant health communication style in Vietnam is didactic and health professional-centred, and does not necessarily lend itself easily to the adoption of more patient-centred approaches. However, there is evidence to suggest that novel, patient-centred approaches to communication can be successfully implemented in Vietnam [36,37], and that patients often do not conform to cultural stereotypes that suggest they prefer to be more passive in their relationships with health professionals [59]. The evidence presented in this thesis demonstrates that many ethnic minority women are eager to become better informed about their health and the health of their children, and that the current health professional-centred approach to communication is not providing them with the best opportunities to do so. Adopting more patient-centred approaches to health communication with women from diverse ethnic backgrounds in Vietnam could help to increase the use of maternal health services and reduce inequities in maternal health outcomes.

7.7 References

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List of Appendices

A. Ethical approval letter

B. Study protocols

  - Interview Guide – Health Professionals
  - Focus Group Discussion Guide – Pregnant Women/Mothers
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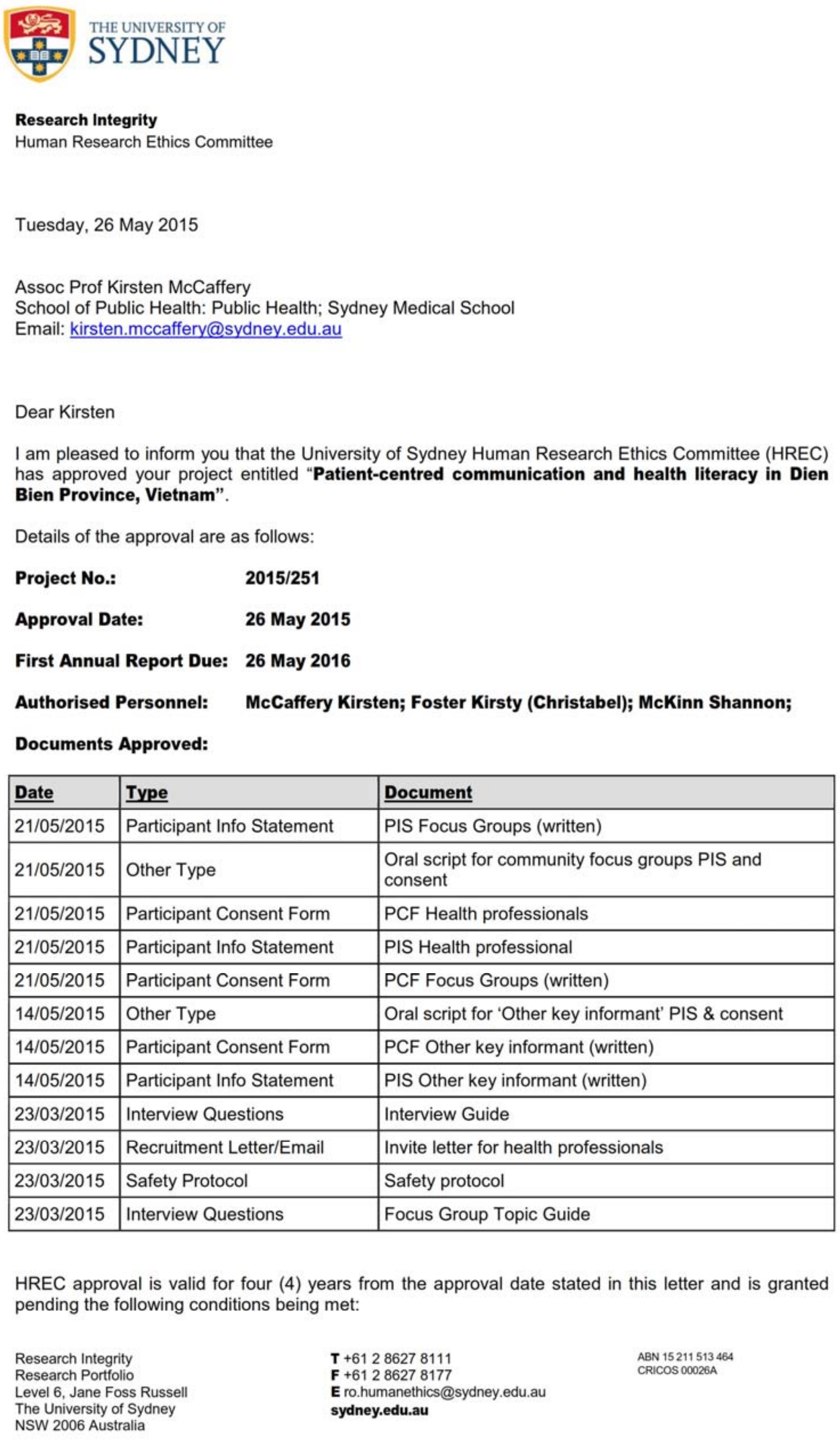
C. Supplementary materials

  - Chapter 3: Table of supporting quotes
  - Chapters 4 and 6: Health professional interviews – framework analysis

D. Related publications and presentations

E. PDF versions of included publications

Appendix A: Ethical approval letter



THE UNIVERSITY OF
SYDNEY

Research Integrity
Human Research Ethics Committee

Tuesday, 26 May 2015

Assoc Prof Kirsten McCaffery
School of Public Health: Public Health; Sydney Medical School
Email: kirsten.mccaffery@sydney.edu.au

Dear Kirsten

I am pleased to inform you that the University of Sydney Human Research Ethics Committee (HREC) has approved your project entitled "**Patient-centred communication and health literacy in Dien Bien Province, Vietnam**".

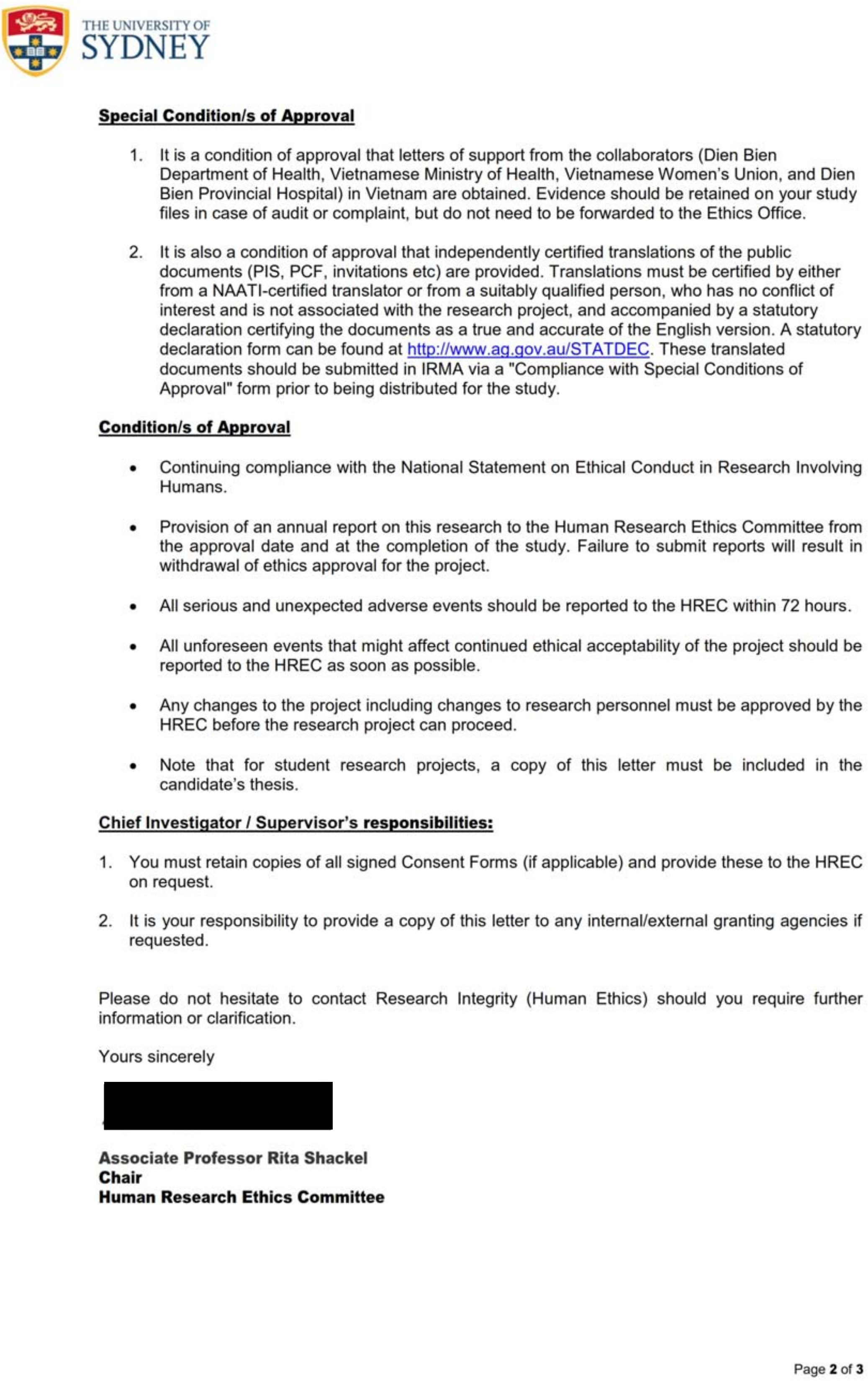
Details of the approval are as follows:

Project No.:	**2015/251**
Approval Date:	**26 May 2015**
First Annual Report Due:	**26 May 2016**
Authorised Personnel:	**McCaffery Kirsten; Foster Kirsty (Christabel); McKinn Shannon;**

Documents Approved:

Date	**Type**	**Document**
21/05/2015	Participant Info Statement	PIS Focus Groups (written)
21/05/2015	Other Type	Oral script for community focus groups PIS and consent
21/05/2015	Participant Consent Form	PCF Health professionals
21/05/2015	Participant Info Statement	PIS Health professional
21/05/2015	Participant Consent Form	PCF Focus Groups (written)
14/05/2015	Other Type	Oral script for 'Other key informant' PIS & consent
14/05/2015	Participant Consent Form	PCF Other key informant (written)
14/05/2015	Participant Info Statement	PIS Other key informant (written)
23/03/2015	Interview Questions	Interview Guide
23/03/2015	Recruitment Letter/Email	Invite letter for health professionals
23/03/2015	Safety Protocol	Safety protocol
23/03/2015	Interview Questions	Focus Group Topic Guide

HREC approval is valid for four (4) years from the approval date stated in this letter and is granted pending the following conditions being met:



THE UNIVERSITY OF
SYDNEY

Special Condition/s of Approval

1. It is a condition of approval that letters of support from the collaborators (Dien Bien Department of Health, Vietnamese Ministry of Health, Vietnamese Women's Union, and Dien Bien Provincial Hospital) in Vietnam are obtained. Evidence should be retained on your study files in case of audit or complaint, but do not need to be forwarded to the Ethics Office.

2. It is also a condition of approval that independently certified translations of the public documents (PIS, PCF, invitations etc) are provided. Translations must be certified by either from a NAATI-certified translator or from a suitably qualified person, who has no conflict of interest and is not associated with the research project, and accompanied by a statutory declaration certifying the documents as a true and accurate of the English version. A statutory declaration form can be found at http://www.ag.gov.au/STATDEC. These translated documents should be submitted in IRMA via a "Compliance with Special Conditions of Approval" form prior to being distributed for the study.

Condition/s of Approval

- Continuing compliance with the National Statement on Ethical Conduct in Research Involving Humans.

- Provision of an annual report on this research to the Human Research Ethics Committee from the approval date and at the completion of the study. Failure to submit reports will result in withdrawal of ethics approval for the project.

- All serious and unexpected adverse events should be reported to the HREC within 72 hours.

- All unforeseen events that might affect continued ethical acceptability of the project should be reported to the HREC as soon as possible.

- Any changes to the project including changes to research personnel must be approved by the HREC before the research project can proceed.

- Note that for student research projects, a copy of this letter must be included in the candidate's thesis.

Chief Investigator / Supervisor's responsibilities:

1. You must retain copies of all signed Consent Forms (if applicable) and provide these to the HREC on request.

2. It is your responsibility to provide a copy of this letter to any internal/external granting agencies if requested.

Please do not hesitate to contact Research Integrity (Human Ethics) should you require further information or clarification.

Yours sincerely

[redacted]

Associate Professor Rita Shackel
Chair
Human Research Ethics Committee

Page **2** of **3**

This HREC is constituted and operates in accordance with the National Health and Medical Research Council's (NHMRC) National Statement on Ethical Conduct in Human Research (2007), NHMRC and Universities Australia Australian Code for the Responsible Conduct of Research (2007) and the CPMP/ICH Note for Guidance on Good Clinical Practice.

Appendix B: Study protocols

Interview Guide – Health Professionals

Prior to interviews in discussion with Health Station manager:

- Number of staff
- What do they do?
- Maternal, infant and under 5 years mortality so far this year

Introductions

Thank you for agreeing to be interviewed. We are studying doctor-patient communication and health literacy, especially in relation to maternal health, and how your patients may understand the information that you give them about pregnancy and childbirth.

Everything you say will be strictly confidential. We will make a transcript and translation from the audio recording of this interview, but your name and identifying details will be removed.

You will be identified by a unique ID number. The interview will take around one hour. If you would prefer not to answer some questions, or would like to stop the interview at any time, that's fine, just let me know.

Do you have any questions before we start?

Topics	Questions	Prompts
Workplace context	1. Tell me about the community / village you work in 2. Tell me about your workplace	• Are you from this area? • How long have you worked here? Where did you work before? What kind of training did you do?
	3. Describe a typical day at work	• What kind of patients do you see? How many? • What kind of services do you provide?
	4. Have you had any training in maternal and infant health?	• What kind of training? When? Who provided the training?
Ante-natal care	5. What kind of care and services does your health station provide for pregnant women?	
	6. What do women in your community do to take care of themselves when they're pregnant?	• Is there anything that they do by themselves, without the advice of health staff?
	7. Is there anything that pregnant women do in your	

	village that you think is harmful? 8. Do pregnant women in this community come to the health station for check ups? 9. Why do you think pregnant women come / don't come to the health station? 10. What are some problems that occur in pregnancy in your community?	- How many of them come? Most? Not many? - Has this changed in the time you have worked here? Why? - What do you think causes these problems?
Childbirth	11. Where do women in your community prefer to give birth? 12. Why do you think women in your community might give birth at home rather than the health station or a hospital? (or vice versa) 13. What kind of facilities/services does your health station provide for women who are giving birth? 14. What are some problems that occur in childbirth in your community?	- If women mainly give birth at a facility, why do you think those that still give birth at home do so? (or vice versa) - What do you think causes these problems?
Communication	15. What kind of health information do you give to pregnant women and/or women who have recently had a baby. 16. Can you tell me about a time you have had a problem communicating information to a pregnant woman, or a woman with a baby/small children	- How do you give them this information? - When do you give them this information? - Do you think the women understand this information? How do you know? - What happened (i.e. was the problem resolved?) - If response is about language, can you tell me about a time you had difficulty helping a woman who spoke the same language as you understand health information? - What do you think caused the misunderstanding
General	17. Is there anything frustrating about working in your community?	

	18. What are some good things about working in your community? 19. If you could do one thing to improve maternal and child health in this community, what would it be?	
Closing	20. Is there anything else you'd like to add?	

Demographic interview schedule (turn audio recorder off)

1. Gender: Male / Female
2. Age ____________
3. What is your position? ____
4. What are your qualifications? ____
5. How many years have you been practicing? ___________________
6. What is your ethnic group? _____________________________

Focus Group Discussion Guide – Pregnant Women/Mothers

Opening remarks: Thank you all for agreeing to take part in this focus group. We are doing a research study to find out more about the experiences of women in Dien Bien Province around pregnancy and childbirth. We are doing this because we hope that talking to you and other women about your experiences will help us find ways to improve health services in the future.

Today's discussion will be audio-recorded. Everything you say today will be strictly confidential. Because we are talking in a group today, we also ask you to respect each other's confidentiality, and not repeat anything you hear today outside of the group. To help us when we listen to the recording, it would be good if you could say your name before you speak. We will make a transcript and translation from the recording of this conversation, but your name and identifying details will be removed and you will be identified by a unique ID number.

This will take around two hours. If you don't want to answer some questions, or you want to stop at any time, that's fine, just let me know. If you do wish to leave at any time we will not be able to remove the comments you have already made from our records, because we are recording you as a group.

Do you have any questions before we start?

Icebreakers (including both facilitators): Introduce ourselves by name and age, number of children, stage of pregnancy.

1. Pregnancy

- Tell us about when you realised that you were pregnant?
    - Prompt: What happened, how did you realise, when did you realise?
- When you realised that you were pregnant, what did you do?
    - Prompt: How do you take care of yourself when you're pregnant?
- How do you know how to take care of yourself when you're pregnant?
    - Prompt: Who do you ask for advice?
    - Prompt: What kind of things do they tell you?
- How have you been during your pregnancy?
    - Prompt: If they mention issues / complications / illness: what did you do?
- [For mothers]: How was your pregnancy?
    - Prompt: If they mention issues / complications / illness: what did you do?

2. Childbirth

- If you have had a baby, can you tell us about the birth?
- Where would you like to give birth? / Where did you want to give birth?
    - Prompt: Why?
- Where did you / will you give birth?
    - Prompt: Why?
- Who was with you when you gave birth?
    - Prompt: What did they do?

- Who would you like to have with you/liked to have had with you when you gave birth?
  - Prompt: Why?
- Would you have liked anything to have been different when you gave birth?

3. Communication and relationship with maternal health care provider

- Do/did you visit the health station during your pregnancy?
  - Prompt: Why/why not?
- What things do/did they do there for you?
  - Prompt: What happens when you go to the health station when you're pregnant?
  - Prompt: What are/were you looking for from the health station staff?
- Do you feel like you can ask the health worker questions about your pregnancy / childbirth / your baby?
  - Prompt: What information do they give you?
  - Prompt: Is the information helpful?

4. Role of family and community

- What happens/happened after you had your baby?
  - Prompt: How is your family involved with the baby? (Husband, Mother, MIL, etc).
- Does anyone (apart from a health worker) give you advice about pregnancy and having a baby?
  - Prompt: What kind of information?
  - Prompt: Is it helpful?
  - Prompt: What do you do if this advice is different from the advice that the health worker tells you.
  - Prompt: Whose advice about pregnancy and childcare do you most trust?
- Are there things that your family and or community expect you to do while you are pregnant or when your child is born?

5. Health station

- How far away is the health station from where you live?
  - Prompt: How do you get there?
  - Prompt: Is it difficult to get there when you are pregnant or have a small child?
- Do you know what services the health station offers for pregnant women and mothers of young children?
  - Prompt: What are they?
  - Prompt: What do you think of these services?
  - Prompt: Do you use them?

6. Closing question

- Is there anything else you would like to add?

Demographic interview schedule (turn audio recorder off)

1. How old are you? ___________ Years

2. What is your ethnic group? ________________

3. How many children do you have? ________________

4. Are you currently pregnant? ________________

5. How many years of school did you attend? ________________

6. Do you get paid for any work outside your home? ________________

    6a) What do you do for work? ________________

Focus Group Discussion Guide - Grandmothers

Opening remarks: Thank you all for agreeing to take part in this focus group. We are doing a research study to find out more about the experiences of women in Dien Bien Province around pregnancy and childbirth. We know from speaking to women here and in other communes, that when they are pregnant and raising children, their mothers and mothers-in-law are one of their most important and trusted sources of information about their health, and their children's health.

Today we would like to talk to you about what you tell your daughters and daughters in law when they come to you for advice, and about your experiences both as mothers and grandmothers. There are no right and wrong answers to the questions we will ask you this morning. We want to hear about your thoughts and opinions.

Oral consent process – oral consent PIS and PCF

Icebreakers (including both facilitators): Introduce ourselves by name and age, tell us about your family. How many children and grandchildren do you have? Etc.

Information and advice about pregnancy, childbirth, child health

1. When your daughter comes to you and says that she thinks she is pregnant, what do you tell her? (or reverse – mothers might have realised daughter is pregnant before the daughter realises – what made them realise that their daughter was pregnant?)
    - What advice do you give her?

2. What do you tell your daughter about how to take care of herself while she is pregnant?
    - What do you do to care for your daughter when she is pregnant?

3. What do you tell your daughter about labour and childbirth?

4. What do you tell your daughter about taking care of her baby?

5. What information and advice does your daughter ask you for?
    - Do you ever have problems answering your daughter's questions?
    - What do you do if you can't answer her questions?

6. Do you receive any education from commune health staff / village health staff / Vietnamese Women's Union about health?
    - Do you receive any education or information about maternal and child health?
    - If yes, what did you learn about?
    - Was this information helpful to you?

Grandchildren

7. Tell us about the birth of your grandchild(ren)
    - What happened when your daughter went into labour?
    - Where did your daughter give birth?
    - Were you there?

  - What did you do?

8. Where do you prefer your daughter to give birth?
    - Why?

9. Is there anything that your family, or the community, expects your daughter to do after she has had a baby?

10. How are you involved in caring for your daughter and her baby after she gives birth?

11. What is different now about having a baby compared to when you had your children?

Closing question

12. Is there anything else you would like to add?

Demographic interview schedule (turn audio recorder off)

1. How old are you? ___________ Years

2. What is your ethnic group? ________________

3. How many children do you have? ________________

4. How many grandchildren do you have? ________________

5. How many years of school did you attend? ________________

6. Do you get paid for any work outside your home? ________________

    6a) What do you do for work? ________________

Appendix C: Supplementary materials

Chapter 3: Table of supporting quotes

Theme	**Supporting quotes**
Prioritising treatment over prevention	*Health professionals:* 'When patients come, I examine them and give prescription.' (Medical Assistant) 'People only come here when they're sick, for example when they have a fever, sore throat, headache.' (Medical Assistant) 'Dispensing medicine. Examining, diagnosing, providing treatment for both inpatients and outpatients. Our major job is providing primary health care, so we dispense medicine, give prescription.' (Doctor) 'If the people's committee is organizing a program, for example giving away blankets, then they will drop by the health station to get the medicine. Otherwise, they only come here when their health problem has become serious [laughs].' (Doctor) *Pregnant women/mothers of children under five:* 'I didn't have any problem so I didn't go' (to the health station for ANC). 'I never had morning sickness. Just a bit light-headed.' (Thai, MFG) 'I just wanted to check whether there's any problem with my baby. The doctor said my baby is healthy, so I was assured until my delivery. I gave birth at home instead of the hospital.' (Thai, MFG) 'I only had check-up once, then no more. (...) I have a lot to do. If I go, there's no one at home to look after my child. And I have to look after the cows and buffalos too. I don't have time for check-ups.' (Hmong, Mu5FG) *Grandmothers of children under five:* 'We would only go to them when we feel sick' (Thai, GFG) 'If my health is normal, I wouldn't go there.' (Thai, GFG) 'If she tells me that she feels tired or unwell, I would tell her to have check-up.' (Thai, GFG)
Subtheme: Fear as a motivating factor for accessing preventive care	*Health professionals:* 'I think they are aware of the risks for the baby or they're afraid of hard labour so they come here to give birth to ensure safety.'(Midwife) *Pregnant women/mothers of children under five:*

	‘She’s worried about her baby. It’s her first baby. She doesn’t know how to take care of a newborn baby so she wants to give birth at the health station so that she can ask for advice from health staff.’ (Hmong, MFG) ‘The second time, I knew better and thought I should go to the hospital to give birth because I was afraid. The first time I just gave birth at home.’ (Thai, Mu5FG) ‘If the baby gets out too quickly then I can’t do anything. If I’m in too much pain, I should go to the hospital. They told me that so I’m quite afraid. Many people had unexpected problems (…) For example postpartum haemorrhage. I’m afraid of that. Last time I gave birth at home.’ (Thai, PWFG) Facilitator: ‘Anything else you’re worried about when giving birth at home?’ Participant: ‘Too many, I can’t even begin to tell them.’ (Thai, MFG) *Grandmothers of children under five:* ‘I wouldn’t let her give birth at home.’ (…) ‘If something bad happens, I wouldn’t know what to do.’ (Thai, GFG) ‘When she’s going into labour, I would tell her not to worry because the doctors are there to help her.’ (Thai, GFG)
Modernisation of traditional practices	*Health professionals:* ‘In the past they didn’t have as much understanding so they would give birth at home.’ (Midwife) ‘People here are different from other communes. They pay attention to their health and their baby’s health.’ (Doctor) ‘We come to them, understand them and support them, so they trust us and come to us more.’ (Doctor) ‘Since the health station was established and health services were provided, people have had great trust in health staff and no longer follow superstitious rituals. They come here to get medicines and their health problems are treated so they believe in the effects of medicines.’ (Nurse) *Pregnant women/mothers of children under five:* ‘The parents would say that in the past [contradict health staff advice] It was different, they didn’t have anything to eat [laughs] but now we eat [laughs] if there is anything unusual we should go to the health station’ (Thai, Mu5FG) ‘In the past people delivered at home’ (Thai, Mu5FG) ‘Nowadays everyone thinks we should go the health station, it’s better to trust the health staff.’ (Thai, Mu5FG) ‘Pregnant women here have to work even when the due date is near. Some pregnant women even gave birth right on the field. But that doesn’t happen anymore, only in the past.’ (Hmong, MFG) *Grandmothers of children under five:* ‘Nowadays it’s best to give birth at the hospital. People here don’t give birth at home anymore. In the past all pregnant women gave birth at home. All of us here gave birth at home.’ (Thai, GFG)

	‘I tell her [my daughter] that she has it much easier than me back then, because she gets to eat everything she wants.’ (Thai, GFG) ‘Ten days after I gave birth, my mother let me eat chicken, but only one thigh. But that’s so luxurious already (…) Things were so difficult back then. Now things are easier.’ (Thai, GFG) ‘Now you guys eat everything (…) Back then we weren’t allowed to eat eggs or meat or anything. Just salt, dry salt [and rice], within three days of giving birth. I lost my appetite, and was very weak and didn’t have breast milk for my baby.’ (Thai, GFG) ‘Back then there was no doctor. I gave birth at home. My mother just told me to push harder and harder. Now at the hospital they said not to push too hard. My mother told me to push really hard so that the baby could get out, but it was exhausting. Back then there were so many maternal deaths, no?’ (Thai, GFG) *Key informants:* ‘Now more women give birth at the health station, but that’s only because they have better knowledge.’ (Village midwife)
Subtheme: Who is left behind?	*Health professionals:* ‘The percentage of poor families is still high, so pregnant [women] still have to do heavy work to earn their livings, despite knowing that it’s harmful.’ (Medical Assistant) ‘In poor families, pregnant women don’t take good care of their personal hygiene and environmental sanitation’ (Medical Assistant) ‘There are women who are too poor and don’t have a motorbike to go to the health centre. And they would have to pay for food and transportation to give birth at the hospital, so they prefer to give birth at home.’ (Medical Assistant) ‘For infants, there are problems when the family is too poor, but this rarely happens now.’ (Midwife) ‘Some women don’t know how to take care of their baby. The poorer they are, the lower level of understanding they have about how to take care of their baby. That’ll affect the health of the baby.’ (Doctor) ‘And they don’t eat enough and therefore don’t have enough nutrition. We advise them to eat healthy but they can’t afford that do they don’t have enough nutrition for both mother and fetus.’ (Midwife) *Pregnant women/mothers of children under five:* ‘It’s harvest season now so the whole family is away at the field. She cannot bring the baby to the hospital on her own. She already called her husband. In one or two days when her husband comes home, they will go to the hospital together.’ (Hmong, MFG – baby had been referred to district level services by the commune health station). *Key informants:*

	'The financial situation is quite difficult. Some households earn enough to cover their living expenses. Other households have a lot of children and cannot earn enough to support all of them.' (Village midwife) 'They understand that they should avoid heavy work and get enough nutrition. But many women can't afford all the nutritious food. They want to eat this and that but they can't afford it. Only those who are better off can afford that.' (Village midwife)
Ethnic minority women's and health professionals' perceptions of quality influenced service utilisation.	*Health professionals:* 'They receive better care there [hospital]. They also feel safer because there are enough facilities and equipment at the hospital in case anything happens. The health staff there has more expertise too.' (Pharmacist) 'I advised them to come here to give birth but they would rather go to the hospital. They think that in dangerous situations we might not be able to transfer the women to the hospital in time. They also think that here we don't have enough staff and medication. Even after we have advised them to come here to give birth, they still think otherwise. I told them so many times already' (Midwife) 'This is the obstetrics room. This is everything we have for our obstetrics room. We don't have tool trolleys, and no bed either because the room is too small.' (Midwife) 'The health station doesn't meet sanitation standards' (Medical Assistant) 'I wish we had more facilities, so that this health station is better equipped, then we can provide better services.' (Medical Assistant) 'We don't have anything. No blanket, no mosquito net, no bed. We have the heater and sterilizer though, so we can work with the tools for removing umbilical cord. We just have a table where the pregnant woman can lie on, which is very small. We only help with cases that are too urgent, otherwise we would transfer them to the hospital.' (Medical Assistant) 'I'm in a very difficult situation. We don't have enough working space.' (…) 'I wish the infrastructure of this health station could be improved soon so that we have a better workplace.' (Medical Assistant) 'I've been thinking about how to increase the number of pregnant women giving birth here, and only transfer complicated cases to district hospital. We don't assist with third-child deliveries, but we should take on normal labours' (Medical Assistant) 'I'm not sure whether the midwife is unconfident or she's just avoiding the work' (Medical Assistant) 'Here we can't perform ultrasound scan, so we might not detect complicated cases. So I prefer to transfer them to the hospital.' (Midwife) 'We told them that in this health centre we don't have enough facilities and medicine, so we would recommend that they give birth at the hospital.' (Midwife) *Pregnant women/mothers of children under five:*

	‘Health staff at the health station are not as good as those at the hospital. And the facilities are not so good either, and they haven’t got as much space as the hospital.’ (Thai, PWFG) ‘The hygiene is better in the hospital. And if there’s a problem, the Doctor will help me.’ (Thai, PWFG) ‘In the hospital they take my blood for testing, there’re too many steps, I may have to wait until the afternoon, so I prefer the private clinic (…) I want to get results quickly so I go to the private clinic.’ (Thai, MFG) ‘I usually went to Tuan Giao hospital for ultrasound scan to see if the fetus is healthy or not.’ (Thai, Mu5FG) ‘I had stomach ache so I went to the hospital for ultrasound scan. They can’t do ultrasound scan at the health station.’ (Thai, PWFG) *Grandmothers:* ‘They (health station) don’t have enough equipment like the hospital.’ (Thai, GFG) ‘Only give birth at the health station if there’s not enough time to go to the hospital. The health station is near. But if there’s enough time to go to the hospital, we would go there.’ (Thai, GFG) *Key informants:* ‘I called the health station because it looked like a case of premature baby. Health staff at the health station said that it might indeed be a premature birth, but they wouldn’t be able handle that case at the health station and advised me to take her to [health station in other commune]. That night I took her to [other commune] but they didn’t take the case either because they’re afraid it’s premature birth. So I took her to [hospital].’ (Village midwife)

Chapters 4 and 6: Health professional interviews – framework analysis

Chart 1: General info – Commune and Health Professional (HP)

1. Commune - General
    a. Demographics etc
    b. Other
2. Commune Health Station – General info and perceptions
    a. Infrastructure and budget
    b. Staffing
    c. Staff roles and responsibilities
    d. Staff training and skill level
    e. Services available
    f. Mother and child health services
    g. Referral pathways
    h. Service quality
    i. Perceived main health issue presenting at health station
    j. Perceived purpose of station
    k. Perceived community attitude to health station
    l. Perceived responsibility to community
3. Health worker – General info and perceptions
    a. Relationship to community
    b. Work and training history
    c. Specific MNCH training
    d. Contrasts with previous workplace
    e. Own role in health station
    f. Mobility vs stability
    g. Language
    h. Job satisfaction
    i. Job frustrations
    j. Self-perception
    k. Attitude towards patient population
    l. Attitude toward health station

Chart 2: Communities and community activities

1. Communication activities
2. Monitoring activities
3. Perceived harmful practices in the community
    a. Education and knowledge based
    b. Cultural / social
    c. Economic
    d. Other external influences

4. Perceived positive practices in the community
5. Perceived community preferences
6. "Othering" of minorities
7. Ethnic "sameness"

Chart 3: Communication

1. Patient-level (individual)
2. Woman-centredness (lack-of)
3. Directive communication
4. Village-level communication
5. MNCH specific communication
    a. Equipment and medications
    b. During pregnancy
    c. Labour / birth location
    d. Post-partum
    e. Communication for family members
6. Methods of communication used / mentioned
    a. Spoken
    b. Written
    c. Other
7. Perceived communication difficulties/barriers
    a. Language
    b. Ethnicity/culture
    c. Education/health literacy
    d. Lack of professional skills
    e. Gendered barriers
    f. Economic situation/poverty
8. Strategies used for communication difficulties
    a. Reliance on "other"/dependence
    b. Language strategies
    c. Communication techniques
    d. Trust building
    e. Lack of solutions
    f. Scare tactics
9. Perceived usefulness of information to patients
10. Perceived understanding of patients
11. Perceived successes

Chart 4: Modernisation narrative

1. Reported absence of MNCH problems
2. Improved communication
3. Improved community knowledge
4. Improved trust in health professionals

5. Economic and systemic development
6. Health behaviours
    a. Attending ANC
    b. Choosing facility based delivery
    c. Cultural practices
    d. Nutrition
    e. Family planning/having less children
    f. Vaccination acceptance

Chart 5: Perceived risk factors

1. Lack of family planning/having three or more children
2. Not accessing ANC
3. Delivery location
    a. Urgency (fast labour)
    b. Night labour
    c. Remoteness
    d. (Perceived) lack of infrastructure
    e. (Perceived) lack of staff skills in health stations
    f. Lack of transportation
    g. Economic factors
    h. Lack of insurance/Difficulty registering insurance
    i. Culture/tradition
    j. Family factors
    k. Inability to assert preference
    l. Preference for other services or home birth
    m. Gender difference with health professionals
    n. Lack of knowledge
4. Lack of self-care
    a. Economic factors
    b. Family factors
    c. Knowledge factors
5. Malnutrition
6. Marriage "deviance" (early marriage/cousin marriage/pregnancy out of wedlock)
7. Symptoms and complications
8. Risk narratives (case studies)

Chart 6: Contradictions between and among participants

Chart 7: Instances of translation difficulties between participant, interviewer, and interview protocol

Appendix D: Related publications and presentations

Peer-reviewed journal articles

1. McKinn S, Duong TL, Foster K, McCaffery K. Distributed health literacy in the maternal health context in Vietnam. *HLRP: Health Literacy Research and Practice* 2019:3(1);e31-e42. doi: 10.3928/24748307-20190102-01
2. McKinn S, Duong TL, Foster K, McCaffery K. 'I do want to ask, but I can't speak': A qualitative study of ethnic minority women's experiences of communicating with primary health care professionals in remote, rural Vietnam. *International Journal for Equity in Health* 2017;16(1):190. doi: 10.1186/s12939-017-0687-7
3. McKinn S, Duong TL, Foster K, McCaffery K. Communication between health workers and ethnic minorities in Vietnam. *HLRP: Health Literacy Research and Practice* 2017;1(4):e163-172. doi: 10.3928/24748307-20170629-01

Conference presentations and posters

1. McKinn S, Duong TL, Foster K, McCaffery K. Maternal health literacy and decision-making during pregnancy in Dien Bien Province, Vietnam. Sydney Vietnam Symposium, Sydney Australia, September 2018.
2. McKinn S, Duong TL, Foster K, McCaffery K. Maternal health literacy and decision-making in Dien Bien Province, Vietnam. Sydney School of Public Health Research Showcase, Sydney, Australia, July 2017.
3. McKinn S, Duong TL, Foster K, McCaffery K. Communication and community health literacy in Dien Bien Province, Vietnam: a qualitative study. 14th International Conference on Communication in Healthcare, Heidelberg, Germany, September 2016
4. McKinn S, Duong TL, Foster K, McCaffery K. Communication and community health literacy in Dien Bien Province, Vietnam: a qualitative study. Association of Pacific Rim Universities Global Health Workshop, Sydney, Australia, September 2016 (poster)
5. McKinn S, Duong TL, Foster K, McCaffery K. Communication and community health literacy in Dien Bien Province, Vietnam: a qualitative study. Health

Literacy at the Deep End: Addressing Health Inequalities, Glasgow, UK, March 2016

6. McKinn S, Foster K, Duong TL, McCaffery K. Patient-centred communication and health literacy in Dien Bien Province. Joint Research and Training Symposium, Ho Chi Minh City, Vietnam, November 2015
7. McKinn S, Foster K, Duong TL, McCaffery K. Patient-centred communication and health literacy in Dien Bien Province. Joint Research and Training Symposium, Hanoi, Vietnam, November 2015

Invited speaker presentations

1. McKinn S. Communication and community health literacy in Dien Bien Province, Vietnam. University College London, Health Behaviour Unit: internal seminar. Invited by Dr Jo Waller as part of a study visit. London, UK, March 2016 (attended by health psychology researchers)
2. McKinn S. Patient-centred communication and health literacy in Dien Bien Province, Vietnam. University of Sydney, Sydney Southeast Asia Centre: Postgraduate Seminar Series. Sydney, Australia, September 2015 (attended by cross-disciplinary researchers).

Appendix E: PDF versions of included publications

Original Research-Qualitative

Communication Between Health Workers and Ethnic Minorities in Vietnam

Shannon McKinn, MIPH; Duong Thuy Linh, BN; Kirsty Foster, MBChB, DRCOG, FRCGP, PhD; and Kirsten McCaffery, PhD

ABSTRACT

Background: Vietnam has made notable progress in reducing maternal mortality rates during the past 2 decades, but this overall improvement conceals regional and ethnic inequalities. Ethnic minorities in Vietnam experience high rates of poverty and mortality, and they face communication and cultural barriers when accessing health services. Poor communication with health professionals combined with limited health literacy is concerning, particularly in the maternal health context, and may exacerbate existing inequalities. **Objective:** This study explores primary health care professionals' perceptions of the quality of their communication with ethnic minority women during and after pregnancy. **Methods:** Semi-structured interviews were conducted with 22 primary health care professionals in Dien Bien province. A thematic analysis was performed using a framework analysis method. **Key Results:** Health professionals had mostly positive perceptions about their communication with ethnic minority women. However, they generally perceived the effectiveness of their communication as being based on women's individual capacities to understand health information (both the language used and the content) and factors such as ethnic and cultural differences, rather than reflecting on the suitability of information and materials or on their own communication skills. This placed much of the burden of communication and understanding health information on ethnic minority women and their families. **Conclusions:** Health professionals perceived of communication as being mainly a one-way street for the provision of health information, and rarely acknowledged the interactive nature of communication. Patient-professional communication and health literacy in Dien Bien province may be improved through the introduction of patient-centered communication skills training that applies health literacy approaches at the health professional level. **[*Health Literacy Research and Practice*. 2017;1(4):e163-e172.]**

Plain Language Summary: We looked at how primary health care professionals in Vietnam perceive their communication with ethnic minority women, particularly about pregnancy. Health professionals generally perceived the quality and effectiveness of their communication as being based on ethnic minority women's individual capacities and limitations. Applying a health literacy approach to communication skills training could improve patient-professional communication and health literacy.

Vietnam has made impressive advances during the past 25 years in lowering rates of maternal, child (ie, younger than age 5 years), and infant mortality. A strong political commitment to meeting targets set by the Millennium Development Goals has contributed to this progress (Minh, Oh, Hoat, & Lee, 2016a); however, this country-wide success obscures regional and ethnic inequalities (Ministry of Planning and Investment, 2015; Malqvist, Lincetto, Du, Burgess, & Hoa, 2013). Dien Bien Province (DBP) is a small, mountainous province with a population of about 550,000 (General Statistics Office of Vietnam, 2016a) in the northwest part Vietnam, bordering Laos and China. The predominantly ethnic minority and rural population of DBP experiences poverty rates, and infant, child, and maternal mortality rates much higher than Vietnam as a whole (**Table 1**).

Ethnic minority women in Vietnam are less likely to access antenatal care or give birth at a health facility (Do, 2009; Goland, Hoa, & Malqvist, 2012; Ministry of Planning and Investment, 2015; Malqvist et al., 2011; Malqvist, Lincetto, Du, Burgess & Hoa, 2013a; Minh et al., 2016b), and there is evidence that inequity in service use is increasing along ethnic lines (Malqvist et al., 2013a). Ethnic minority status often intersects with other factors associated with a lower level of health care use in Vietnam, including geographical and physical access factors such as difficult terrain and lack of transportation (Binder-Finnema, Lien, Hoa, & Malqvist, 2015; Do, 2009; Toan, Trong, Höjer, & Persson, 2002), lower educational level of mothers (Do, 2009; Duong, Binns, & Lee, 2004), and the continued practice of traditional customs in remote areas (Binder-Finnema et al., 2015). Although it is unclear how ethnicity and distance from primary care services interact to affect access to antenatal care and delivery services, ethnicity has been found to be a significant determinant of maternal health care use after controlling for household income and maternal education (Goland et al., 2012).

There are also communication barriers that affect ethnic minority peoples' access to and quality of care. The patient–health professional interaction is an essential pillar of primary care; however, in addition to linguistic and cultural barriers, ethnic minority people in Vietnam often experience obstacles related to the patient–health professional interaction, including discrimination, poor attitudes from health staff, and a lack of culturally sensitive services (Binder-Finnema et al., 2015; Malqvist, Hoa, Liem, Thorson, & Thomsen, 2013b; UNICEF Viet Nam, 2011; Rheinlander, Samuelsen, Dalsgaard, & Konradsen, 2011).

Health literacy broadly refers to the factors that affect a person's ability to access, process, understand, and communicate about health information to make informed decisions (Berkman, Davis, & McCormack, 2010). Health literacy is needed for accessing and using health care and for interacting with health providers (Batterham, Hawkins, Collins, Buchbinder, & Osborne, 2016). Although there is little research on health literacy in low and middle-income countries, research in high-income countries has found an association between low health literacy and experiencing communication difficulties with health professionals (Easton, Entwistle, & Williams, 2013; Kripalani et al., 2010; Williams, Davis, Parker, & Weiss, 2002), and experiencing less patient-centered communication (Wynia & Osborn, 2010).

Although health literacy has not been measured on a population level in DBP, with the high levels of poverty, lower level of educational attainment, and the lack of Vietnamese language and functional literacy skills among many ethnic minority women (UNICEF Viet Nam, 2011), it is reasonable to assume that the level of health literacy is low (Lee, Tsai, Tsai, & Kuo, 2010; Paasche-Orlow, Parker, Gazmararian, Nielsen-Bohlman, & Rudd, 2005; Rudd, 2007). Low health

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TABLE 1

Comparison of Key Indicators Between Vietnam and Dien Bien Province

Indicator	Vietnam (Entire Country)	Dien Bien Province
Poverty rate (%)	7[a]	29.1[a]
Infant mortality (per 1,000 live births)	14.9[b]	34.4[b]
Mortality in children younger than age 5 years (per 1,000 live births)	22.4[c]	53[c]
Maternal mortality (per 100,000 births)	58[d]	676[d]

[a] 2015 data (General Statistics Office of Vietnam, 2016b).

[b] 2014 data (General Statistics Office of Vietnam, 2016a).

[c] 2010 data (World Health Organization, 2015).

[d] 2010 data (Ministry of Planning and Investment, 2015).

literacy and poor communication between health care professionals and ethnic minority people are concerns for the DBP Provincial Health Service, which has collaborated with the University of Sydney and the Vietnamese Women's Union to deliver maternal and child health workshops for health professionals and community leaders, with an emphasis on improving health literacy and communication between the two groups. This study explores how health professionals perceive the quality of their communication with ethnic minority women during and after pregnancy, and the factors that they believe influence the effectiveness of that communication. The overall aim of the research is to develop and support strategies to improve health professional communication to ethnic minority communities in Vietnam.

METHODS

Study Location

We conducted the study in September and October 2015 in Tuan Giao district, DBP. We chose Tuan Giao district in collaboration with provincial and district health service officials as a representative rural district at a significant distance from the provincial capital (approximately 80 km). The district is divided into 19 communes, with a population of approximately 100,000 people. Most people in the district are from the Thai ethnic minority group (UNICEF Viet Nam, 2011), with a smaller population of Hmong, Kinh, Khang, and Kho Mu people. Please note that Thai people are a Vietnamese ethnic minority group who are distinct from Thai people who make up the population of Thailand.

Recruitment

In cooperation with the District Health Service, we selected primary level health stations in five communes. These communes were purposively sampled to ensure that health stations with a range of characteristics were included. These characteristics included distance from the District Hospital (4-45 km), predominant ethnic group of the commune population (predominantly Thai and Hmong communes were included), and whether the health station had a full-time doctor on staff (two of the five health stations had a full-time doctor at the time of the study). Three of the five communes were majority Thai with small Hmong populations, and the other two were predominantly Hmong. We also conducted focus groups with ethnic minority women in each of the five communes; we will report these results separately. The University of Sydney Human Research Ethics Committee approved the study, and the DBP Public Health Service, the Tuan Giao District Health Service, and the Vietnamese Women's Union approved and supported the research plan.

Participants

We invited all health professionals (doctors, midwives, nurses, pharmacists, and medical assistants) at the five health stations who had professional contact with pregnant women and mothers of children younger than age 5 years to participate in the study. We refer to the participants as health professionals throughout the course of this text to distinguish them from community (village level) health workers who have received basic health training and receive a small stipend. All participating health professionals were salaried employees working within the health system at the primary care level. We conducted interviews with all health professionals who were present on the day of the visit to the health station, and who were available to be interviewed. One health professional opted not to participate after reading the participant information statement. At one health station, three of five staff present were not able to be interviewed due to their work duties; however, we were able to interview the two staff members who had the most contact with pregnant women. Preliminary analysis of early interviews and thematic consistency among interviews conducted across the five health stations suggested saturation of key themes. All participants gave written consent. We provided all participant information and consent forms to participants in Vietnamese, their working language. Participants were not compensated for their time.

Data Collection

We conducted semi-structured, in-depth, face-to-face interviews with 22 primary care health professionals (see **Table 2** for participant characteristics). We held interviews at commune health stations, during the course of the participants' usual working day, and they lasted between 23 and 85 minutes. S.M., an Australian doctoral student with experience in qualitative research, and D.T.L, a Vietnamese interpreter/research assistant with a nursing background, conducted interviews in English and Vietnamese. S.M. and D.T.L. also took detailed field notes, and discussed them in regular meetings throughout the data collection period.

Data Analysis

An independent third party translated audio recordings into English and transcribed verbatim in English, which enabled the checking and validation of the interpretation provided during the interviews (Squires, 2009). We performed a thematic analysis using a Framework Analysis method (Ritchie, Spencer, & O'Connor, 2003) to ensure rigor. This method of thematic analysis involves five steps: (1) familiarization with the data—three researchers (S.M., K.F., and K.M.) read a subset of interview transcripts and discussed initial themes and relationships within the data; (2) creating a thematic framework (S.M.); (3) indexing—we coded remaining transcripts according to the framework, with iterative revision of framework (S.M., K.F., K.M.); (4) charting—themes/quotes were summarized in the framework (S.M.); and (5) mapping and interpretation—framework data were examined within and across themes and participants, summarized (S.M.), and discussed with all authors (Gale, Heath, Cameron, Rashid, & Redwood, 2013; Ritchie, Spencer, & O'Connor, 2003). We managed and coded transcripts in Microsoft Word, and used Microsoft Excel for the creation of the thematic framework and subsequent charting.

RESULTS

We have divided the results into two main parts. The first section describes the typical content and delivery of health information between health professionals and ethnic minority women as the health professionals themselves describe it. The second section comprises the qualitative analysis of health professionals' perceived role of communication on women's health behaviors and health outcomes and the perceived factors in determining the quality of communication with women.

Content and Delivery of Health Information

Primary health care professionals (doctors, midwives, nurses, medical assistants, and pharmacists) perceived themselves as an important source of information for pregnant women and mothers in Tuan Giao district. In the primary care setting, health professionals reported that they provide women with information about nutrition during pregnancy, abnormal signs and symptoms during pregnancy, iron supplementation, vaccination, and breast-feeding, and they encourage women to access antenatal care and to give birth at a health facility. Information is described as being mostly delivered verbally, with some use of visual aids such as pictures and flip books. Health professionals commonly referred to the *Handbook for Maternal and Child Health* (also known as the "Pink Handbook" [Ministry of Health, Vietnam, and Japan International Cooperation Agency, 2014]), which they reportedly give to all pregnant women in DBP when they present for antenatal care, and is designed to be used until their child is age 6 years. This handbook was developed and produced by an international development agency and the Ministry of Health. The Pink Handbook is a home-based record written in Vietnamese, and functions as a written record for health professionals, as well as an information source for mothers on pregnancy and child health.

Perceived Role of Communication on Women's Health Behaviors and Health Outcomes

Primary health care professionals had generally positive perceptions about their communication with ethnic minority women in the maternal and child health context. The majority of participating health professionals in this sample felt that their communication of health information with women on an individual and community level has been an important factor in improving health outcomes in their communes, which they perceived to be the result of an increase in adherence to health advice and improvements in achieving targets for vaccination, antenatal care, and facility-based birth. This perception was especially present among health professionals working in predominantly Thai communes, although it was expressed by health professionals in all five study communes.

As one female Thai pharmacist commented: "They don't give birth at home anymore. Now most of them go to the hospital to give birth. Their knowledge has improved thanks to our communication."

Health professionals also credited successful communication, and increased coverage of maternal and child health issues in the media, with a perceived decrease in harmful behaviors during pregnancy, such as continuing heavy manual farm work or working with toxic substances such as pesticides.

> Before, when the media coverage of maternal and child care was limited, and the communication by health staff was limited, most pregnant women didn't know how to take care of themselves. They still worked in unsafe environments, and still did heavy work. But in recent years, with the communication work much improved, most women no longer do heavy work or work in polluted environment. (Medical Assistant, female, Thai)

However, almost all of the Thai and Kinh health professionals acknowledged that they often have trouble communicating health messages to Hmong communities, and observed that Hmong women were less likely to seek antenatal care and were more likely to give birth at home. This was perceived by both health care professionals in predominantly Thai communes with a small Hmong population who generally live in remote mountainous villages, and those working in predominantly Hmong communes where people do not necessarily live far from the health station.

> The most difficult part is communicating with Hmong people. They live in a remote village … Most of them give birth at home. It's always difficult to implement the National Health Target program with Hmong people. (Medical Assistant, female, Thai)

Approximately one-half of the health professionals also acknowledged that information provision is only useful up to a point, as they felt that pregnant women and mothers may understand what they need to do to care for themselves but are unable to do so due to economic or family circumstances. For example, they cannot afford to buy food to provide sufficient nutrition during pregnancy, or their family may not be able to spare their income.

> It depends on the financial situation of each family. I might tell them that they need this or that to take care of the baby, but they can't afford such things. (Medical Assistant, male, Thai)

TABLE 2

Participant Characteristics

Patient Characteristics	Number of Health Professionals (%)
Sex	
Female	15 (68)
Male	7 (32)
Age, years (range, 21-57)	
<25	1 (5)
25-34	10 (45)
34-44	3 (14)
45-54	6 (27)
55+	2 (9)
Primary health care position	
Medical assistant[a]	11 (50)
Midwife	6 (27)
Doctor	2 (9)
Pharmacist	2 (9)
Nurse	1 (5)
Years of practice (range, 2 months to 38 years)	10 (45)
<10	4 (18)
10-19	5 (23)
20-29	3 (14)
30+	
Ethnicity	
Thai	15 (68)
Hmong	5 (23)
Kinh	2 (9)
Ethnically concordant with majority patient population	
Yes	16 (73)
No	6 (27)

Note. $N = 22$.

[a] General medical position requiring 2 years of vocational training.

Perceived Factors in Determining the Quality of Communication with Women

Health care professionals' perceived the effectiveness of their communication as mainly determined by ethnic minority women's capacities, particularly their language fluency, education level, and literacy skills. Adapting communication styles or materials for women who were less skilled was rarely mentioned or discussed by participants; therefore, the communication skills of the health professionals were seldom reflected upon by the health professionals themselves. Two main subthemes emerged regarding the perceived quality of communication between health care professionals and ethnic minority women: "sharing the same language, sharing an understanding?" and "the difficulties of difference."

Sharing the same language, sharing an understanding? The health professionals we interviewed generally perceived good or successful communication to come from speaking the same language as their patients, particularly Thai health professionals working in predominantly Thai communes.

> We are all Thai people, we belong to the same group, speak the same language, so it's easier to work with local people. (Medical Assistant, female, Thai)

Conversely, seven health professionals worked in communes where they were in the minority, resulting in cases where both the health professional and the patient were conversing in their second language. For example, a Hmong midwife working in a predominantly Thai commune communicated with Thai women in Kinh, which was a second language for both the midwife and the Thai women.

> Some women don't understand the language so we have to ask other women to translate. I can speak Thai, but the midwife belongs to the Hmong group, so she has to talk to Thai women in Kinh language. Some Thai women don't understand Kinh language. (Medical Assistant, female, Thai)

For many of the participating health professionals, there was little acknowledgment that women may have difficulty understanding the health information they provided; the assumption being that communication difficulties largely stem from language discordance.

> There's no difficulty if we speak the same language. The only problem is language difference. (Midwife, female, Thai)

Consequently, most of the health professionals who were interviewed seemed to assume shared language resulted in women understanding the health information. However, some of those health professionals also identified education and literacy levels among women as a factor determining how well women understood the information they provided, with "illiterate" women perceived as lacking the capacity to understand health information.

> Literate women can understand right away. Illiterate women wouldn't understand even if I repeat the information many times, or just understand part of it. (Midwife, female, Hmong)

There was also an assumption that as long as someone in the household was able to read the information in the Pink Handbook given to pregnant women, the woman's health information needs were being adequately served. Several of the health professionals who discussed the Pink Handbook mentioned that women did not understand some of the information in the handbook or were unable to read it; their solution was to tell the women to take it home and have her husband or a literate child read it and pass on the information, thereby delegating the explanation of health information to a third party.

> Some women are illiterate though so I told them to bring the handbook home so that the husbands and children could read it for them. (Midwife, female, Thai)

The difficulties of difference. Discordance between health professionals and patient language was common, particularly with Hmong people living in majority Thai communes, where the participating health professionals were generally Thai. It is in these cases that health professionals most commonly acknowledged that they have problems communicating. They described interactions with women of a different ethnic group as "difficult," (Midwife, female, Thai) whereas interactions within their own ethnic group are "convenient" (Midwife, female, Thai) and "comfortable" (Medical Assistant, male, Thai). Some women preferred to speak to a health professional from their own ethnic group, if available; a Hmong midwife working with mostly Thai colleagues reported that Hmong women would not attend the health station if she was not there.

> Hmong people always ask before they come here … ask whether I'm here or not. If I'm not here, other health staff would ask them 'what's wrong?' and the women would say 'nothing is wrong' and go home. (Midwife, female, Hmong)

Health professionals also perceived communication as difficult when dealing with ethnic minority women who they thought of as being "shy." This term was generally used to describe Hmong women who were reluctant to speak to a health professional or to present to a health station, particularly to give birth. Health professionals perceived this shyness to be due to a range of factors, including discordant ethnicity and/or gender between health professionals and women, language difference, and general customs of ethnic minority people.

> It's their customs. They're shy and don't want anyone else to see their body parts … They're shy in front of strangers. Ethnic minority women are shy like that. (Medical Assistant, female, Thai)

> Some [Hmong] women are shy so they just keep silent when I ask them [if they understand health information]. They look at me intently but don't say anything. Some other women, when I ask them if they understand they say yes. (Midwife, female, Hmong)

For example, a female Kinh health professional described a "shy" 16-year-old pregnant Thai adolescent who asked for a referral to the district hospital but refused to disclose her pregnancy because the health professional was not Thai. She overcame her "shyness" with a male Thai health professional, suggesting the woman may have felt more confident disclosing her pregnancy to someone from her own ethnic group, in her own language, despite their gender difference.

> I asked her why she asked for a referral letter … she said she has a stomach ache. I asked if there's any vaginal discharge, she said no. I asked if she's pregnant or not, she said no. Later [another staff member] talked to her in Thai language and she told him everything. She was shy and didn't answer me because I spoke Kinh language. (Medical Assistant, female, Kinh)

Several health professionals also believed that some ethnic minority women chose not to understand them "on purpose" when faced with health advice they did not wish to adhere to, particularly in regard to family planning (Vietnam has a two child policy; families who have more than two children may face punitive measures). A Hmong midwife described her frustration with this experience in regard to discussing family planning:

> We speak the same language and understand each other, but they don't understand on purpose … when I explain to them that they should use contraceptive methods for family planning, otherwise it would lead to financial difficulties. But they would say "No, I would never use such things." I try my best to explain to them, but if they don't want to understand then it's very difficult. (Midwife, female, Hmong)

This perception of willful misunderstanding on the part of women also denies the possibility that women may be making a conscious choice to disregard the health professional's advice, based on their differing health beliefs, understanding, preferences, and values.

DISCUSSION

Primary care health professionals in Tuan Giao district thought of themselves as important sources of health information for pregnant women and mothers of young children. They had generally positive views about their communication and its perceived outcomes, but they also acknowledged difficulties communicating with ethnic minorities, especially Hmong people. These difficulties were perceived to be mostly due to patient factors, particularly their ethnicity, language fluency, and literacy skills. When given the opportunity to reflect on communication problems that they had previously experienced with ethnic minority women, health professionals in our sample largely focused on these patient factors, leaving them little room to reflect on their own communication skills.

These results illustrate that health professionals considered communication to be an important part of maternal care generally, but there is little to no differentiation between the concepts of the one-way delivery of health information and interactive communication with women. Although health professionals frequently talked about how they delivered health information, and what information they delivered, there was little mention of the importance of listening to women's perspectives or ensuring that they have understood health information. There was also a perception that communication with women was useful as a means to ensuring adherence with health advice, rather than being valuable in itself or as a means to strengthen health literacy or their relationship with women under their care. Previous research has identified relationships and communication as critical elements for enhancing health literacy, highlighting the importance of the patient-provider relationship and the need for a patient-centred focus to identify and address health literacy needs (Carollo, 2015). Conceptual models of the causal pathways between limited health literacy and health outcomes also suggest that improving the patient-provider interaction may mediate the effect of limited health literacy on health outcomes (Paasche-Orlow & Wolf, 2007; von Wagner, Steptoe, Wolf, & Wardle, 2009). This is concerning in the context of increasing the use of health services by ethnic minority women, as elements of the patient-provider relationship, particularly a receptive, respectful provider attitude and trust, have been found to be highly valued by women when choosing where to give birth (Kruk, Paczkowski, Mbaruku, de Pinho, & Galea, 2009; Kruk et al., 2010). Social stigma may also play a role in this setting. Research has identified discrimination and negative attitudes by health staff towards ethnic minority women as being a possible determinant of inequity in maternal and child health in Vietnam, as negative experiences may discourage women from seeking care (Malqvist, Hoa, & Thomsen, 2012).

The participating health professionals generally viewed pregnant women, and by extension the patient populations that they serve, within an individual deficit perspective (Dawkins-Moultin, McDonald, & McKyer, 2016); they commonly perceived communication issues to mostly be due to patient factors that need to be overcome on an individual basis, placing much of the burden of communication and understanding information about pregnancy on women and their families. Future health literacy and communication skills training in the district and the province should encourage health professionals to broaden this perspective to recognize health literacy, and communication more generally, as an interactive social practice that is co-constructed between the health professional/system and the patient through interaction and the patient/provider relationship (Aldoory, 2017; Rubin, Parmer, Freimuth, Kaley, & Okundaye, 2011). This may help to reframe the notion of communication problems from being solely due to language or educational deficits among women to a view where health professionals recognize their responsibility in creating an environment conducive to more patient-centered care. By encouraging health professionals to take a patient-centered approach to communication that does not look at communication difficulties and low health literacy purely as a patient problem, they will be empowered to better respond to the limitations that they perceive in their patients. Little research has been done on patients' preferences and needs regarding patient-centeredness in patient-provider communication in low and middle-income countries, particularly in Asian countries. What research has been done indicates that patients have different needs based on their cultural framework and local social norms (Moore 2008; Ting, Yong, Yin, & Mi, 2016) but this does not mean that they are not open to a more patient-centered approach to communication with their health care provider (Claramita, Utarini, Soebono, Van Dalen, & Van der Vleuten, 2011; Kim, Putjuk, Basuki, & Kols, 2003).

Future health professional training in DBP could consider applying health literacy approaches at the health professional level (Batterham et al., 2016), with a focus on the following oral communication strategies for low health literacy populations: (1) the use of relevant action-oriented directives that clearly explain concrete actions that patients can take given their individual circumstances, (2) encouraging patients to ask questions, (3) using teach-back techniques to confirm patient understanding and identify limitations in a non-shaming way (Batterham et al., 2016; Oates & Paasche-Orlow, 2009) and (4) strengthening health professional capacities for problem-solving when they experience difficulties communicating with patients from a different ethnic group (Batterham et al., 2016).

Traditional health literacy strategies such as these emphasize improving how health professionals deliver information and give instructions, but our data suggest that health professionals should also be encouraged to take a broader view of communication as being more than simply delivering health information. Integrating health literacy approaches with culturally competent communication that emphasizes learning about patients' differing concepts of health and health beliefs is also necessary (Andrulis & Brach, 2007). We would add that particular attention needs to be paid to true patient-centeredness, and recognizing that cultural difference between ethnic groups can significantly affect communication. For this reason, health professionals should be especially encouraged and supported to develop tailored strategies for communicating with Hmong communities, together with Hmong community leaders. We are cautious in drawing parallels between these findings and the larger body of research on racial/ethnic disparities and the impact of patient-provider communication. Much of the research in this area has been grounded in the specific historical and social context of the United States. However, research into the racial and ethnic disparities in the U.S. has underlined the potential role of poor communication in causing health disparities (Ashton et al., 2003), and drawn similar conclusions as to the importance of training health professionals to engage in better quality communication with minority and racially discordant patients (Shen et al., 2017). A recent systematic review (Rocque & Leanza, 2015) also highlighted the importance of cultural influences on patient-provider communication, and explored factors influencing ethnic minority patients' experiences of communicating with primary health care providers. Language barriers, discrimination, and cultural differences around values and beliefs were highlighted as important negative influences.

Strengths of this study include a heterogeneous sample, the high level of participation from health professionals, a rigorous analysis process, and the involvement of local collaborators. The main limitations of this study are that self-reported practice in interviews may differ from actual behavior, and there may be a related element of social desirability bias. We attempted to minimize this by using a neutral interpreter and reassuring participants of the confidentiality of their participation. Additionally, this is a cross-cultural study, and some responses may have been misinterpreted by the authors. We have attempted to limit misinterpretations by independently translating all interview audio data, and collaborating with a Vietnamese co-author (D.T.L.). The interview process and any actual or potential misunderstandings were also regularly discussed by the authors in regular meetings during the data collection process.

CONCLUSION

Health professionals consider communication to be an important part of patient care, but they generally perceived communication as one-way information provision, rather than an interactive social process. They perceive communication problems to be due to patient factors, including ethnic and language differences. There were specific barriers to communication with the Hmong population, which may need targeted interventions. Health literacy in DBP may be improved through integrating effective, patient-centered communication skills training for health professionals, strengthening health professionals' problem-solving capacities, and expanding health professionals' perspective of communication and health literacy to focus less on perceived patient limitations and more on their own capacity to respond to such limitations.

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RESEARCH **Open Access**

'I do want to ask, but I can't speak': a qualitative study of ethnic minority women's experiences of communicating with primary health care professionals in remote, rural Vietnam

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Abstract

Background: Ethnic minority groups in Vietnam experience economic, social and health inequalities. There are significant disparities in health service utilisation, and cultural, interpersonal and communication barriers impact on quality of care. Eighty per cent of the population of Dien Bien Province belongs to an ethnic minority group, and poor communication between health professionals and ethnic minority women in the maternal health context is a concern for health officials and community leaders. This study explores how ethnic minority women experience communication with primary care health professionals in the maternal and child health setting, with an overall aim to develop strategies to improve health professionals' communication with ethnic minority communities.

Methods: We used a qualitative focused ethnographic approach and conducted focus group discussions with 37 Thai and Hmong ethnic minority women (currently pregnant or mothers of children under five) in Dien Bien Province. We conducted a thematic analysis.

Results: Ethnic minority women generally reported that health professionals delivered health information in a didactic, one-way style, and there was a reliance on written information (Maternal and Child Health handbook) in place of interpersonal communication. The health information they receive (both verbal and written) was often non-specific, and not context-adjusted for their personal circumstances. Women were therefore required to take a more active role in interpersonal interactions in order to meet their own specific information needs, but they are then faced with other challenges including language and gender differences with health professionals, time constraints, and a reluctance to ask questions. These factors resulted in women interpreting health information in diverse ways, which in turn appeared to impact their health behaviours.

Conclusions: Fostering two-way communication and patient-centred attitudes among health professionals could help to improve their communication with ethnic minority women. Communication training for health professionals could be included along with the nationwide implementation of written information to improve communication.

Keywords: Communication, Ethnic groups, Minority groups, Female, Pregnancy, Vietnam, Maternal health, Qualitative research, Primary health care

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Background

Vietnam has made noteworthy health advances over the last 25 years, particularly in regards to improving maternal and child health [1]. However, despite this national success story, regional and ethnic health inequalities persist [1, 2]. Ethnic minority groups have been found to be at increased risk of neonatal mortality, stillbirth, childhood malnutrition and stunting [3] and inequalities may be increasing in some areas, such as service utilisation [2]. There are 54 officially recognised ethnic groups in Vietnam, with the largest group, the Kinh, making up approximately 86% of the population [4]. Vietnam's 53 ethnic minority groups, with the exception of the Hoa (Chinese), are more likely to be poor and living in remote areas than the Kinh majority [3]. While ethnic minority groups are considered to be a national treasure, demonstrating the rich cultural diversity of Vietnam, historically they have been the target of government reforms aimed at improving living standards while largely sidelining traditional culture [3, 5]. Government policy has referred to ethnic minority groups as underdeveloped and backwards, while depicting the Kinh majority as more socially and economically advanced [6]. These policies have advocated for ethnic minority groups to alter their lifestyles, as their traditional practices are seen as contributing to poverty and disease [6].

Dien Bien Province (DBP) is a small, mountainous border province located in the northwest of Vietnam with a population of approximately 540,000 [7], around 80% of who belong to an ethnic minority group [8]. The population of DBP experiences poverty, and child and maternal mortality at rates much higher than national averages [1, 9–11]. Previous research into ethnic minority health in Vietnam has shown significant disparities in service utilisation, with ethnic minority women less likely to access antenatal care (ANC) and give birth at a health facility [1, 2, 12–14], and ethnic minority parents less likely to seek medical care for their children when they are ill [15]. While geographical and physical access factors such as remoteness, lack of transportation, and difficult terrain are contributing factors to ethnic inequalities in service utilisation [12, 16, 17], it has been argued that ethnic inequalities are also the result of low levels of investment in physical and human capital [18]. Those investments that do exist, such as cash subsidies on housing construction, agricultural grants, interest-free loans [19], and a targeted poverty reduction policy [3] may suffer from low returns due to social discrimination, cultural difference and inadequate information, further driving inequality [18]. Prior studies have shown ethnic minority people experience cultural and interpersonal barriers when accessing services, such as discrimination, poor attitudes from health staff and a lack of culturally sensitive services [4, 8, 16, 20].

The cultural, interpersonal and spatial factors described above are obstacles that may adversely impact the patient-health professional interaction, an essential pillar of primary care. Moreover, with the high level of poverty, lower level of educational attainment, and lack of Vietnamese language and functional literacy skills among many ethnic minority women in DBP [8], it is reasonable to assume the level of health literacy in the population is low [21–23]. Although there is little research on health literacy in low and middle income countries (LMIC), previous research has established an association between low health literacy and experiencing communication difficulties with health professionals [24–26], and experiencing less patient-centred communication [27]. Several studies in other Asian countries with traditionally hierarchical social structures have also found that these power dynamics can flow into the patient-health professional relationship [28–31].

Maternal and child health is a concern for the DBP Provincial Health Service, which has collaborated with the University of Sydney and the Vietnamese Women's Union (VWU) to deliver maternal and child health workshops for health professionals and community leaders [32, 33]. During these workshops, limited health literacy and communication between health professionals and women have emerged as major issues impacting on quality of care. Conceptual models of the causal pathway between health literacy and health outcomes have suggested that improving communication (i.e. the patient-provider interaction) may mediate the effect of limited health literacy [34, 35]. This conceptualisation of health literacy provides the overarching framework for this research. The aim of this study is to explore how ethnic minority women experience communication with primary care health professionals in the maternal and child health setting. The overall aim of this research is to develop and support strategies to improve health professionals' communication with ethnic minority communities in Vietnam.

Methods

Study design

This study utilises a qualitative design, and takes a pragmatist theoretical stance [36]. Specifically, this study is a focused ethnography. As in traditional ethnographic research, the focused ethnographic approach allowed us to centre culture while containing our focus to specific research objectives. In focused ethnography, the field of investigation is determined by pre-existing research questions, which are generally problem-focused and context specific [37, 38]. Data collection is not reliant on long-term participant observation, as in traditional ethnography, with an emphasis on "time intensivity" over "time extensivity," whereby a large amount of data is produced in a shorter amount of time, followed by an intensive data analysis process [39].

Setting

We conducted the study in October 2015 in Tuan Giao District, DBP. Tuan Giao district was chosen in collaboration with provincial and district health officials as being a representative rural district at significant distance from the provincial capital (approximately 80 km). The district is divided into 19 communes, with a total population of approximately 82,000 (Son LD, personal communication, Oct 12, 2017). The basic hierarchical structure of the Vietnamese state health system is illustrated in Fig. 1. In Tuan Giao, each commune has a health station, with the District Hospital (which has surgical capacity) serving as the main referral point for all communes. Services at the commune level are staffed by doctors, nurses, midwives (usually responsible for basic maternity care including ANC and normal delivery), medical assistants and pharmacists. Not all commune health stations had a full-time doctor on staff at the time this study was conducted. Although commune level services provide primary care, preventive services, family planning, and maternity care (including normal delivery), in practice, patients often self-refer to district and provincial level services. There is also a small number of private clinics operating in the area.

Most residents of Tuan Giao are from the Thai ethnic minority group [8], with a smaller population of Hmong, Kinh, Khang, and Kho Mu people. Please note that Thai people are a Vietnamese ethnic minority group, as distinct from Thai people who make up the population of Thailand.

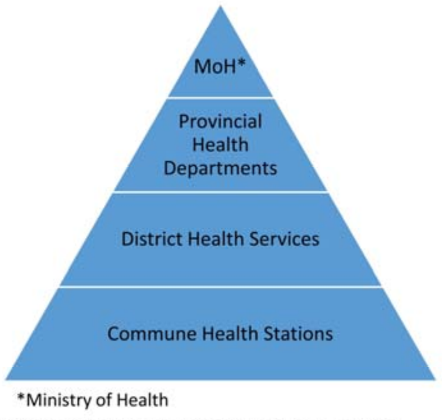

Fig. 1 Vietnamese health system structure. *Ministry of Health

Recruitment

Five communes were selected in cooperation with the District Health Service. These communes were purposively sampled in order to ensure communes with a range of characteristics were included (Table 1).

Women who were currently pregnant, or who had been pregnant in the previous 5 years were eligible to participate in focus groups, and were recruited with the assistance of the VWU at the commune and village level. All participants gave written consent, or gave oral consent after hearing the information in the participant information statement. We provided all participant information and consent forms to participants in Vietnamese, or translated them orally into local languages (Thai and Hmong) if required. All women were compensated 100,000 Vietnamese dong (approximately 4.45 USD at time of data collection) for their time, which the VWU suggested as an appropriate amount. We also conducted semi-structured interviews with health professionals working at the commune health station in each of the five communes; these results are reported separately [40]. Community members were recruited for focus groups without the involvement of health station staff, in order to minimise any perceived or actual coercion. We obtained ethics approval through the University of Sydney Human Research Ethics Committee (Project No. 2015/251), and the research plan was approved and supported by the DBP Public Health Service, the Tuan Giao District Health Service, and the VWU.

Participants

We conducted seven focus groups with 37 women who were currently pregnant or had children under 5 years old (see Table 2 for participant characteristics) in five villages. Two focus groups were made up of currently pregnant women (PWFG), three focus groups were made up of mothers of children under 5 years (MU5FG), and two focus groups were mixed (MFG). We purposively sampled for diversity, taking into account ethnicity,

Table 1 Commune characteristics

Commune characteristics	N (%)
Distance from District Hospital (range 4 km – 45 km)	
< 10 km	2 (40%)
10–20 km	1 (20%)
20–30 km	1 (20%)
30–40 km	0 (0%)
> 40 km	1 (20%)
Predominantly sealed road access to District Hospital	4 (80%)
Ethnic makeup	
Predominantly Thai	3 (60%)
Predominantly Hmong	2 (40%)

Table 2 Participant characteristics

Participant characteristics	N (%)
Age, years (range 18–33)	
< 20	7 (19)
20–24	21 (57)
25–29	5 (14)
30–34	4 (11)
Ethnicity	
Thai	28 (76)
Hmong	9 (24)
Years of school	
None	5 (14)
1–6	10 (27)
7–12	19 (51)
Post high school	3 (8)
Number of children	
0	9 (24)
1	14 (38)
2	12 (32)
3	1 (3)
4	1 (3)
Currently pregnant	16 (43)

language spoken, distance of residence from the District Hospital, parity, and degree of health service utilisation.

We believe the variation of experience present in the data are sufficient to adequately support the reported results and answer the research questions [41].

Data collection

Focus group discussions were chosen as the data collection method after discussions with local collaborators. Based on previous experience working with ethnic minority communities in DBP, we felt a group environment, where women could share their experiences and interact with their peers without being outnumbered by "outsider" researchers would be more conducive to an open discussion. Focus groups were made up of between 4 and 8 women, and lasted between 43 min and 1 h and 53 min. We conducted six focus groups in the homes of community leaders, and one in a community hall. Discussions were intentionally held away from commune health stations in order to allow women to speak freely about their experiences with health professionals. Each session was made up of several sections: introduction and consent process (written and/or oral as appropriate), warm-up discussion introducing participants and their babies, focus group discussion (see Appendix 1 for topic guide), and a closing demographic questionnaire. The broad topics covered include 1. Women's experiences of pregnancy and childbirth, 2. Communication and relationship with maternal health care provider, 3. The role of family and community during pregnancy, childbirth and postnatal period, and 4. Access to and utilisation of health station and services. At several groups, older women who lived in the homes where focus groups were being conducted were also present. Although the older women were not generally present in the room for the entire duration of the focus group, some made comments during the discussion and gave consent to have their contributions recorded by researchers. We also held a focus group for older women; these results will be reported separately. Any men who were present were asked to leave the room for the duration of the discussion, on the assumption that the women could speak more freely about issues around pregnancy and childbirth. Focus groups were conducted primarily in Vietnamese, with some interpretation into Thai and Hmong, and were facilitated by a female Vietnamese researcher with a nursing background (DTL), under the supervision of a female Australian PhD student with extensive experience in qualitative research (SM). Interpretation into local languages was performed by local women, including village representatives of the VWU, the People's Committee, and in one case a village midwife. The village midwife was not an employee of the commune health station. She was elected by the community to receive village midwife training and received a stipend for her work. We audio recorded all focus group discussions and took detailed field notes, which we discussed in regular meetings throughout the data collection period.

Data analysis

An independent third party translated audio recording of the focus groups discussions and transcribed them verbatim in English. We used NVivo 11 Software for Windows [42] to manage the transcribed data. We conducted a thematic analysis according to the following steps: 1. One author (SM) reviewed all transcripts and discussed initial impressions with KM and KF who reviewed a subset of transcripts. 2. SM developed a coding framework by coding data using an iterative approach employing both inductive (data-driven) and deductive (researcher-driven) code development. Codes were developed through an initial open coding process, whereby codes were derived from the raw data. Data was also categorised in light of the research aims and questions that guided the development of the focus group discussion guide. Emerging findings from interviews we conducted with health professionals in the same setting were also considered [40]. 3. SM then refined, grouped and categorised codes, comparing codes and examining them across the data set to develop themes. 4. SM summarised themes and discussed them with all authors [43].

Results

In focus group discussions, Thai and Hmong women on the whole conveyed a wish to learn more about pregnancy, childbirth, their own and their children's health. They expressed their desire to ask more questions of health professionals. Generally, they wanted more information and access to health professionals, a better understanding of their health and bodies, and more opportunities to participate and learn from health professionals and each other. However, as the following results show, many ethnic minority women were not given adequate opportunity to fulfil these desires, due to the nature of their communication with health professionals. Three main themes emerged regarding how women experience communication with health professionals: 1) the pervasiveness of didactic, one-way delivery of non-specific health information; 2) variation in women's understanding and subsequent health behaviours and 3) the challenges of interpersonal communication with health professionals. Note that throughout this section quotes marked with an asterisk are in the third person because they are remarks made by local interpreters translating the responses of non-Vietnamese speakers.

Pervasiveness of didactic, one-way delivery of non-specific health information

Women reported that health professionals delivered information about pregnancy in a didactic, one-way style, with women acting as passive listeners. The information they recalled was mostly general and non-specific in nature, covering areas such as nutrition, check-ups and foetal development, vaccination, general self-care, and taking iron supplements. For example, regarding nutrition, women said health professionals tell them they need to 'eat enough,' 'get enough nutrition,' and 'eat from all food groups.' They rarely mentioned being given specific dietary advice, although some women reported they were told they should eat more protein when they were pregnant.

When I had check-ups, they gave me advice. Eat enough nutrition, take proper rest, keep personal hygiene (Thai, PWFG).

They just told me to walk carefully, eat healthy, that's all. (Thai, PWFG).

The verbal advice given to ethnic minority women by health professionals was supplemented by the Maternal and Child Health (MCH) Handbook. The MCH handbook was discussed in all focus groups, and most women reported receiving one. Women generally reported a lack of explanation of the health information in the MCH handbook from health professionals. Many women, especially the Thai women (where perhaps there is an expectation of higher literacy levels from health professionals than with Hmong women), described being given the MCH handbook, and told to take it home to read, with little or no explanation.

They just gave me the handbook and told me to read it. They didn't say much. (Thai, MFG).

This may have been adequate for some ethnic minority women, but others stated that they struggled to understand the information in the MCH handbook, both due to the content itself, and the language and literacy barriers.

They didn't say anything. They just told me to keep it carefully. [laughs] No I don't [read the MCH handbook at home] (…) Because I cannot read. (Hmong, MU5FG).

Some women particularly specified that they did not have trouble reading the information in Vietnamese, rather it was the information itself they did not understand, while others were unable to read the MCH handbook at all.

They said they do look through the handbook at home but they cannot read so they don't understand much of it. (…) Some of them cannot read, others can read but don't understand the information, so they would ask other people around them. (Hmong, MFG)*.

Women frequently reported asking their husband to read the book for them and pass on the information if they were unable to read. Additionally, some women lacked the time or inclination to read the MCH handbook.

They told me to study it at home. There is information (…) everything is in there, it's just that I was too lazy to read [laughs] (Thai, PWFG).

She doesn't have time to read it. She works all day, then prepares dinner, then she wants to sleep. (Hmong, MU5FG)*.

However, women still valued the MCH handbook, although not always for reasons related to its function as a source of health information during pregnancy. Even when they could not fully understand the contents of the handbook, women acknowledged its importance and mentioned keeping it as a health record and reference, and even as a sentimental item for their child to read in the future.

Everything in this pink handbook is important (…) it's just that I don't understand much. (Thai, PWFG).

This handbook is very meaningful (…) when your children can read, they'll see how much you love them and they'll love you back. (Hmong, MFG).

Variation in women's understanding and subsequent health behaviours

The minimal detail and non-specific nature of health advice that women described being given to them may lead to women understanding and interpreting health information in a variety of ways in practice, as illustrated by the different perceptions and practices women had around taking iron supplements. Most women who discussed iron supplements had similar perceptions as to why they were prescribed, saying they were necessary when you 'lack blood,' to prevent future lack of blood, or for their baby's health. However, their experiences of communicating with health professionals about iron supplements and how to take them were much more varied. Some women reported general, non-specific instructions like 'take enough iron,' and take iron when they 'lack blood' (although it is unclear how they would assess this themselves). Others recalled specific, correct instructions about how to take iron supplements. However, women were often unaware that iron should be taken consistently, or were confused about dosage. Some reported they were told to read the MCH handbook for instructions about how to take iron supplements, saying 'they [health professionals] don't explain much.' Women reported inconsistencies between what they remembered being told by health professionals, and what they understood from their MCH handbooks.

They told me to take one pill in the evening. In the handbook, it is suggested to take two or three pills when I lack blood. I asked the doctor and they told me that if I did that I would die [laughs]. (Thai, PWFG).

Several women reported side effects from taking iron supplements. Some women received advice from health professionals to alleviate side effects while others were told they must endure their discomfort as a normal part of pregnancy. Several women reported that they stopped taking iron supplements due to their 'incompatibility,' often without telling health professionals. They continued to receive supplements at the health station, although they would not use them. One Hmong woman reported that she began taking her iron supplements again after the village midwife gave her instructions more tailored to her personal preferences.

They told me that there's no other way, I still have to take the iron for my baby. But I couldn't. They continued to give me iron but I never took it. I haven't taken the iron since I started being pregnant. I had constipation. It hurt so much. I couldn't sit or walk. (Thai, MU5FG).

They told me to take the iron twice a day, each time one pill. But I didn't take it because I didn't like the smell. Then [village midwife] came and told me to take just one pill per day, and if I feel nauseous I should take it before sleep at night. (...) Yes I did [take the iron after that]. (Hmong, MU5FG).

The challenges of interpersonal communication with health professionals

Women reported a range of experiences communicating directly with health professionals, and differing levels of ease doing so, which could be influenced by a variety of overlapping factors, including the language spoken by health professionals, health professionals' gender, women's literacy skills, and their comfort asking health professionals questions. Women had differing levels of comfort asking questions of health professionals. Hmong women mentioned that while they were comfortable discussing certain topics with male health staff, such as how to care for a sick child, there were other topics that could not be discussed between the genders. These topics were referred to in the group as 'sensitive issues' and were centred around women's bodies (e.g. vaginal birth). This discomfort prevented them from asking questions about childbirth, and discussing safe delivery locations. This gendered communication barrier did not arise in the discussion with the Thai women, although it should be noted that the Thai women who participated had access to numerous female health professionals at their commune health stations.

She has many questions but she cannot ask them because they [health professionals] are male (…) She cannot ask the male staff about those issues so she has to wait till the female staff comes back to work (…) She can ask male staff about how to take care of the baby, but not questions about giving birth (Hmong, MFG)[a].

If women had access to health professionals in more informal settings, such as their homes, some preferred to speak to them there, rather than in a formal health setting.

I ask [name] (…) she works at the health station, so if there is anything I don't understand, I would ask her. [Name] who lives next to my house (…) She answers my questions about anything. I rarely read the handbook, I don't have time. (Thai, PWFG).

Other women had a general aversion to asking questions of health professionals, even though they said they felt they could ask health professionals questions. They reported they were confident with the language, and they did not feel that health professionals discouraged question-asking. However, they were reluctant or 'shy' to ask health professionals about things they did not understand, which adds extra difficulty to a situation where they are required to be proactive.

Yes, I do want to ask but I can't speak. (…) I can speak Kinh [Vietnamese] okay (…) I'm shy [laughs]. I don't understand so that's it. I don't ask (Thai, PWFG).

This general aversion to question-asking may also be related to perceptions among women that health professionals may be dismissive of their questions and concerns. Several women described going to the health station when they were worried about something, and feeling they were having their concerns dismissed or effectively ignored by health professionals. One Thai woman reported she had bad stomach pain after taking iron supplements, and was worried about how often her baby was kicking her belly, but on telling the doctor her concerns 'the doctor didn't say anything.'

The challenges of interpersonal communication with health professionals extended from one-on-one interactions into the community setting. Although community health education was organised and targeted to women, it often appeared to be poorly communicated to women, or held at inconvenient times. Women who worked outside of the home in the fields often left very early in the morning, and sometimes stayed there overnight, and did not know a session had taken place until after the fact.

We didn't know. When we came home, they said they did a communication session. We don't know if they invited us or not but they said we weren't home. (Hmong, MFG).

I have never been invited (Thai, PWFG).

Women who did attend community sessions reported that health professionals ran out of time to answer questions, adding extra barriers for women who wished to learn more. Time was also a barrier to communication during routine visits to the commune health station.

At the end of the session, the health staff said they ran out of time. If I don't understand something, I could attend the next session or go to the health station to ask health staff there. (Hmong, MFG).

When I go to the health station, the health staff are always busy, there are so many patients, so many people need them. If I ask them, they wouldn't have time for other people. (Thai, PWFG).

Discussion

Ethnic minority women in DBP generally expressed an eagerness to learn more about pregnancy and newborn care. The health information they did recall receiving from health professionals was didactically delivered, non-specific, and often poorly tailored to their situations as ethnic minority women. Health professionals can act as facilitators for ethnic minority women's understanding of health information, but with the pervasiveness of didactic, one-way communication from health professionals in practice, the onus was placed on women to take a more active role in their communication with health professionals in order to meet their information needs. This may not come easily to them due to challenges including gender, language, time constraints, reluctance to ask questions, and a perceived lack of interest or sympathy from health professionals when women raised concerns about their pregnancies. Additionally, there is a growing reliance on giving women written information, in the form of the MCH handbook. These factors resulted in women interpreting information in various ways, which in turn impacted their health behaviours during pregnancy and motherhood.

There has been little previous research focused on patient-provider communication in Vietnam, generally or in a maternal health context, let alone among a predominantly ethnic minority population. There has been some research into patient preferences regarding patient-provider communication in other Asian LMICs, which has found that people have different communication needs and preferences based on local social norms and cultural context (including traditionally hierarchical social structure) [30, 44]. However, these norms do not necessarily mean that patients in these countries are not open to a more patient-centred communication approach [29, 45]. In Vietnam, a study of decision-making preferences among urban women found a desire for active participation when choosing a contraceptive method in consultation with a health professional, with an autonomous or shared decision-making approach preferred. A passive decision-making approach, in which women's concerns were secondary to the health professional's opinion, was evaluated very negatively by women. This was found despite the cultural context in Vietnam which traditionally emphasises hierarchic role differentiation and respect for authority figures [46].

Health professionals working in commune health stations were also interviewed for this study [40]. We found that the commune health professionals generally perceived the main purpose of communication being information delivery, rather than an interpersonal interaction. They perceived the effectiveness of their communication as being based on women's individual capacities to understand health information, rather than actively reflecting on the suitability of information and materials, or on their own communication skills. This is also reflected in these focus group results, as ethnic minority women and health professionals described a situation in which communication is frequently one-way, both in the clinical and community setting, and driven by the agenda of health professionals rather than by women's needs and preferences. Health professional-driven care has also been found to impact other aspects of maternal health service utilisation. A qualitative study into childbirth practices in the same province as the current study found that health services failed to accommodate local (i.e. ethnic minority) childbirth preferences, and that the low level of service utilisation was partly due to ethnic minority peoples' rejection of the medicalised, health care professional-centred approach found in public health facilities [47]. Additionally, it should be noted that health professionals working at the commune level may also be marginalised within the health system as they have limited power and autonomy themselves [16].

Both women and health professionals also described a substantial reliance on sending ethnic minority women home with often complex written information (MCH handbook) in order to meet women's information needs during pregnancy and afterwards. Our results show that ethnic minority women do value the MCH handbook, particularly as a health record. This corroborates previous qualitative findings from Cambodia which found women value the MCH handbook as a health record and information source, wish to keep it as a reference, and often share it with their family members [48]. However, our findings also demonstrate that often women cannot understand the information inside the MCH handbook, both the content and the language used. Our results indicate that the MCH handbook may be increasing rather than reducing demands placed on ethnic minority women by health professionals by being neither sufficiently understandable (people of diverse backgrounds and varying levels of health literacy can process and understand key messages) nor actionable (people of diverse backgrounds and varying levels of health literacy can identify what they can do based on the information presented) [49]. This is consistent with research in high-income countries which has demonstrated that most patient education materials are too complex for patients with limited health literacy [49].

Previous research on the implementation of MCH handbooks in other LMICs has shown success in increasing ANC attendance [48, 50–52], increasing rates of delivery with a skilled birth attendant and facility-based deliveries [48], improving maternal health-seeking behaviour [53], and in increasing knowledge in specific areas about pregnancy and child health. However, previous research has specified that the MCH handbooks have likely worked to improve these indicators through enhancing communication between health professionals and pregnant women and allowing more personalised guidance to take place. Results from a study in Palestine showed that less-educated women rarely read the handbook at home, but they still became more familiar with health information in the MCH handbook through personalised guidance provided by health professionals who used the MCH handbook [53]. Our findings from DBP show that the MCH handbook is not being used to enhance communication. Instead it is often used in place of personalised and context-adjusted guidance from health professionals, with women being directed to read the handbook at home with little further explanation or opportunities to ask question of health professionals. This passive style of information delivery has previously been found to be a major barrier to health promotion activities among ethnic minority groups in Vietnam, with communication and promotion methods found to be almost entirely passive and information-based, as well as context unadjusted across ethnic groups [54]. Traditionally, formal communication structures in Vietnam have relied on a top-down, one-way hierarchical structure, which has resulted in differences between health knowledge and actual or reported health practices, with high levels of health knowledge not translating into behaviour change. These differences have been found to be due to factors including the use of top-down didactic communication styles, and improper audience segmentation, resulting in inappropriate context-unadjusted messaging and exclusion of specific groups [55]. A recent intervention to improve hypertension control has seen some success in challenging this status quo, showing the acceptability of a culturally adapted storytelling communication approach in rural Vietnamese communities. The storytelling approach was more successful in increasing hypertension medication adherence than didactic content delivery [56].

The MCH handbook used in DBP was piloted in four Vietnamese provinces (of which DBP was one) between 2011 and 2014. The MCH handbook has been evaluated qualitatively and in a pre-post study [57, 58], but almost entirely from the perspective of its usefulness for health professionals and not from the perspective of pregnant women and mothers. One study [57] reported on the prevalence, fragmented implementation and amount of overlap in various MCH home-based records (HBRs) being used throughout Vietnam, and attempted to identify health professionals' and women's perceptions of using HBRs, including the MCH handbook utilised in DBP. The reported qualitative results of the study mainly discussed the user experience of health professionals, and only focused on women's preference to have HBRs integrated into one document - the MCH currently in use in DBP. Another study aimed to assess the MCH handbook in terms of changes in knowledge, attitudes and practices, and also included a qualitative element. While the pre-post study found an improvement in knowledge, attitudes and practices in maternal and child health, the reported qualitative results give little information about how women used and understood the information in their MCH handbooks, or how health professionals used the MCH handbooks as a communication tool [58].

Strengths of this study include a heterogeneous sample, a rigorous analysis process, and the involvement of local collaborators. The main limitations of this study are that Vietnamese is not the first language of the ethnic minority women living in this community, although it is the sole official language of Vietnam. Most women who participated in the study spoke Vietnamese, some with varying levels of confidence, and others needed to speak through local interpreters. However, as this study aimed to capture a wide range of experiences and opinions within the ethnic minority population, we felt it was inappropriate to exclude these women. The use of local interpreters may have also resulted in some distortions in women's responses, either self-imposed or interpreter-imposed. Local interpreters were often women of high status and influence in their villages (representatives of the VWU, village midwife, People's Committee employee), and as such women may have censored their own responses, or had their responses altered in translation. This is a cross-cultural study, and as such, some responses may have been misinterpreted by the authors. We have attempted to limit misinterpretations by conducting an independent translation of all audio data, and collaborating with a Vietnamese co-author. The data collection process and any actual or potential misunderstandings were also regularly discussed by the authors in regular meetings during data collection. Additionally, self-reported practice in focus groups may differ from actual behaviour, and there may be a related element of social desirability bias. We have tried to minimise this through the use of a neutral facilitator, and reassuring participants of the confidential nature of their participation. Furthermore, due to the nature of the qualitative approach, the generalisability of these findings may be limited. We have attempted to enhance transferability by thoroughly describing the research context and methods, and relating our results to existing evidence so that readers may better determine the relevance of these findings to other settings.

Conclusion

The MCH handbook piloted in DBP and three other provinces was earmarked by the Vietnamese government in late 2015 to be scaled up as a nationally standardised HBR document [57]. While a nationally standardised HBR will likely be a useful tool for health professionals, with 54 ethnic groups present in Vietnam, ethnic minority women in other provinces are likely to face some of the same challenges Thai and Hmong women in DBP have experienced. With the move to implement the MCH handbook across Vietnam, government officials and health professionals should be aware of the different experiences and perspectives of ethnic minority women in using the MCH handbook. The results of this study show there is much scope for improving interpersonal communication between ethnic minority women and health professionals in the primary care setting in DBP, including fostering two-way communication and patient-centred attitudes among health professionals. There is an opportunity to include communication training for health professionals along with the nationwide implementation of the MCH handbook in order to ensure that the provision of the MCH handbook enhances rather than replaces personalised communication between pregnant women and health professionals.

Appendix 1: Focus group topic guide

Introduction and Welcome

1. Pregnancy

- Tell us about when you realised that you were pregnant?
  Prompt: What happened, how did you realise, when did you realise?
- When you realised that you were pregnant, what did you do?
  Prompt: How do you take care of yourself when you're pregnant?
- How do you know how to take care of yourself when you're pregnant?
  Prompt: Who do you ask for advice?
  Prompt: What kind of things do they tell you?
- How have you been during your pregnancy?
  Prompt: If they mention issues / complications / illness: what did you do?
- [For mothers]: How was your pregnancy?
  Prompt: If they mention issues / complications / illness: what did you do?

2. Childbirth

- If you have had a baby, can you tell us about the birth?
- Where would you like to give birth? / Where did you want to give birth?
  Prompt: Why?
- Where did you / will you give birth?
  Prompt: Why?
- Who was with you when you gave birth?
  Prompt: What did they do?
- Who would you like to have with you/liked to have had with you when you gave birth?
  Prompt: Why?
- Would you have liked anything to have been different when you gave birth?

3. Communication and relationship with maternal health care provider

- Do/did you visit the health station during your pregnancy?
  Prompt: Why/why not?

- What things do/did they do there for you?
  Prompt: What happens when you go to the health station when you're pregnant?
  Prompt: What are/were you looking for from the health station staff?
- Do you feel like you can ask the health worker questions about your pregnancy / childbirth / your baby?
  Prompt: What information do they give you?
  Prompt: Is the information helpful?

4. Role of family and community

- What happens/happened after you had your baby?
  Prompt: How is your family involved with the baby? (Husband, Mother, MIL, etc).
- Does anyone (apart from a health worker) give you advice about pregnancy and having a baby?
  Prompt: What kind of information?
  Prompt: Is it helpful?
  Prompt: What do you do if this advice is different from the advice that the health worker tells you.
  Prompt: Whose advice about pregnancy and childcare do you most trust?
- Are there things that your family and or community expect you to do while you are pregnant or when your child is born?

5. Health station

- How far away is the health station from where you live?
  Prompt: How do you get there?
  Prompt: Is it difficult to get there when you are pregnant or have a small child?
- Do you know what services the health station offers for pregnant women and mothers of young children?
  Prompt: What are they?
  Prompt: What do you think of these services?
  Prompt: Do you use them?

Abbreviations

ANC: Antenatal care; DBP: Dien Bien Province; HBR: Home-based record; LMIC: Low and middle-income countries; MCH: Maternal and child health; MU5FG: Mothers of children under five years focus group; PWFG: Pregnant women focus group; USD: US dollar; VWU: Vietnamese Women's Union

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Availability of data and materials

Data underlying our findings cannot be made public for ethical reasons, as they contain information that could compromise the privacy and consent of research participants. Data requests may be sent to the corresponding author (KM).

Authors' contributions

SM contributed to study design, data collection, data analysis, interpretation, drafting and revising the manuscript. DTL contributed to data collection, interpretation, and revising the manuscript. KF contributed to study design, data analysis, interpretation, and revising the manuscript. KM contributed to study design, data analysis, interpretation, and revising the manuscript. All authors gave final approval of the manuscript and are accountable for all aspects of the work.

Ethics approval and consent to participate

Ethics approval was obtained through the University of Sydney Human Research Ethics Committee (Project No. 2015/251). All participants gave written or verbal consent to participate in the study.

Consent for publication

Not applicable.

Competing interests

The authors declare that they have no competing interests.

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