

# Strangers helping strangers in a strange land: Vietnamese immigrant (expectant) mothers in the US use social media to navigate health issues in acculturation

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Nhung Nguyen 

## Abstract

**Objectives:** Trying to adapt to a new culture, Vietnamese (expectant) mothers in the USA gathered in few Facebook groups with thousands of members discussing pregnancy, health, and child caring issues. However, there is little research exploring how social support was given/taken among these (expectant) mothers. This empirical research aims at shedding light on how such mothers use social media groups for social support seeking/providing regarding health utilization during their acculturation process.

**Methods:** Drawing from Andersen’s Behavioral Model of Health Utilization, acculturation, and online social support conceptual frameworks, this study analyzes 18 in-depth interviews with immigrant Vietnamese (expectant) mothers in the United States on the use of social media in navigating health acculturation during their pregnancy and motherhood.

**Results:** Results show that these mothers give and take all forms of social support including informational, emotional, relational, and instrumental ones. Facebook groups do not provide the best environment for improving “bonding” social capital for its members. However, these groups provide a platform where “strangers help strangers” overcome various barriers to sufficiently understand and independently access and use the official healthcare system. The groups, hence, aid these women’s pregnancy and their child(ren)’s health. The informational and emotional support provided by Facebook groups among (soon-to-be) mothers helped them tremendously in overcoming acculturative stress. Moreover, with better language skills, knowledge, and experience in using health and social security systems, help-seekers tend to be transformed into help providers to deliver support for those “newcomers.”

**Conclusions:** This research provides insights into personal experience on the uses of social media in navigating health behavior in the process of acculturation among Vietnamese immigrant (expectant) mothers in the United States. The research seeks to contribute to the conceptual frameworks and practical experience of behavioral model of health utilization among immigrant Vietnamese ethnic immigrant pregnant women and mothers of babies and toddlers in navigating health during acculturation process in the United States. The limitations and future research suggestions are also discussed.

## Keywords

Online social support, behavioral model of health utilization, acculturation, Vietnam immigrant (expectant) mothers

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William Allen White School of Journalism & Mass Communications, University of Kansas, Lawrence, KS, USA

### Corresponding author:

Nhung Nguyen, William Allen White School of Journalism & Mass Communications, University of Kansas, Stauffer-Flint Hall, 1435 Jayhawk Blvd., Lawrence, KS 66045, USA.

Email: [nhungnguyen@ku.edu](mailto:nhungnguyen@ku.edu)



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## Introduction

Among approximately 2 million Vietnamese living in the United States, only 34% of those who are foreign-born are English fluent.<sup>1</sup> Among these immigrants, about 7% of women aged 18–45 said that they gave birth in the last 12 months.<sup>2</sup> English fluency is one of these immigrant (expectant) mothers' main obstacles to navigating health issues in the process of acculturation—adapting to the new culture—in the United States.<sup>3</sup> Moreover, (expectant) mothers are also among the groups with the most healthcare needs among these immigrants.<sup>4</sup> They have formed two Facebook groups: “Viet mothers in the US” and “Viet family in the US.” The two groups with approximately 14,000 members in total as of December 2021 are among the largest Vietnamese immigration Facebook groups discussing health and motherhood.

There is yet to research on Vietnamese immigrant (expectant) mothers using social support to navigate health in their acculturation process. The term (expectant) mothers in this research are a shortened form of expecting mothers and mothers of babies and toddlers. (Soon-to-be) mothers sometimes used to refer to the same meaning. To fill the research gap, *first*, this study examines what motivates Vietnamese immigrant (expectant) mothers to use Facebook groups to navigate health acculturation during pregnancy or early motherhood. *Second*, this research seeks to point out social support provided and received by such (expectant) mothers. *Finally*, the study aims to figure out the benefits of using social media for those women and their (future) child(ren).

## Theoretical frameworks

### Andersen's behavioral model of health utilization

The behavioral model of health utilization was developed by Ronald Andersen in the 1960s with the major goal to “provide a measure of access to medical care.”<sup>5(p4)</sup> During three decades of development (1960s–1990s), four phases of this model have been released. The initial model was included with predisposing characteristics (e.g. demographic, social structure and health belief), enabling resources (e.g. personal/family and community), and need (e.g. both perceived and evaluated ones), which resulted in the use of health service.

The second phrase of the model (1970s) incorporated accessibility which was evaluated at potential, equitable, and inequitable aspects. This phrase included healthcare system (e.g. policy, resources, and organization) and consumer satisfaction (e.g. convenience, availability, financing, provider characteristics, and quality) to the model and is expanded with aspects of the use of health service (e.g. type, site, purpose, and time interval). The model is included with the concept of mutability. The model was reconstructed with this concept explains the “point to

policy changes that might bring about behavioral change.”<sup>5(p5)</sup>

The third phase of the model (1980s–1990s) reconstruct primary determinants of health behavior (e.g. population characteristics, healthcare system, and external environment), which resulted in health behavior (e.g. personal health practice and use of health service), and consequently generated health outcome (e.g. perceived health status, evaluated health status, and consumer satisfaction). Finally, the fourth phase of the behavioral model of health utilization has been expanded and incorporated effective and efficient access to the evaluation. The model also emphasized “the dynamic and recursive nature of health services' use model which includes health status outcome.”<sup>5(p7)</sup> The model also incorporated “a feedback loop showing the effects of outcomes on predisposing factors and perceived needs as well as health behavior.”<sup>5(p7)</sup> In general, the model was developed with expanded factors added to the initial three aspects of predisposing characteristics, enabling resources, and needs over the last decades.

This research adapts Andersen's Behavioral Model of Health Utilization to understand health acculturation concerning to design interview questions.<sup>5,6</sup> In which, predisposing factors—demographic factor, enabling factors—the geographic accessibility to healthcare system, and need factors—perceived needs and needs for treatment are taken into consideration to figure out the barriers motivating the use of social media groups among Vietnamese (expectant) mothers. Moreover, the factor of accessibility to healthcare system, the understanding of the organizational aspects of the healthcare system, and consumer satisfaction, in particular the patient and doctor relationships, from Andersen's behavioral model of health utilization will also be used to guide this research in trying to understand Vietnamese immigrant (expectant) mothers living in the United States in giving-seeking social support on social network groups to navigate health behaviors during their acculturation.

### Acculturation in the domain of health

Acculturation has been studied as a unidirectional (cultural of origin) or bidirectional process (cultural of origin and destination culture) at community or individual levels<sup>3,7,8</sup> and further explored as a three-dimensional and quad-dimension phenomena in the recent literature.<sup>9,10</sup> According to Berry<sup>11</sup> definition of acculturation refers to “the process of cultural and psychological change that takes place as a result of the contact between cultural groups and their members.”<sup>11(p27)</sup> In a two-dimensional acculturation world, Berry<sup>8</sup> pointed out a four-strategy model of acculturation: assimilation, integration, separation, and marginalization.

Acculturation nowadays is explored in a multidimensional paradigm, which allows us to take various cultural

aspects and backgrounds into consideration in examining acculturation, especially in multicultural settings. For instance, Ferguson et al.<sup>9(p1486)</sup> argued a tridimensional paradigm (the 3D acculturation) for Black immigrants, with the “three cultural orientations in regards to their culture of origin, European American culture, and African American culture.” The 3D framework of acculturation was then utilized for further exploring the acculturation experiences of Black Caribbean and African Canadian young adults<sup>12</sup> and Russian-speaking immigrant youths in Canada.<sup>13</sup> Yoon et al.<sup>10</sup> incorporated a Quad-Dimensional Acculturation in studying South Sudan refugees living in the U.S. The four dimensions are included South Sudanese, mainstream American, African American, and African cultures and orientations among the research participants. Therefore, acculturation is a more complex and multidimensional phenomena, which incorporate different cultural perspectives and socioeconomic backgrounds during the process to adapt to a new cultural and living environment of immigrants (people who reside from one country to another).

The people who are acculturating often deal with acculturation stress consisting of the acculturation experience, stressors, and acculturative stress.<sup>7,8,11,14</sup> In which, acculturative stress is defined as a reduction in health status (including psychological, somatic, and social aspects) of individuals who are undergoing acculturation, and for which there is evidence that these health phenomena are related systematically to acculturation phenomena.<sup>7</sup>

Regarding the different levels of acculturative stress, Berry et al.<sup>7</sup> found that there are three distinct trends, contending that refugees experienced a relatively high level of acculturative stress than native, ethnic groups, and sojourners (those who residing in a new culture for a short term). Moreover, females showed a greater level of stress than males among the same group of immigrants.<sup>7</sup> Furthermore, “more years of residence in the U.S. and better physical and mental health were observed among those who were integrated” to the new culture.<sup>15(p267)</sup>

The concept of acculturative stress has also been further developed over time allowing a broader context incorporating the conceptualization. Berry<sup>16(p294)</sup> acculturative stress is further conceptualized as “a stress reaction in response to life events that are rooted in the experience of acculturation.” The stress is resulting from the situation that immigrants understand that they are facing a problem which is associated with the “intercultural contact that cannot be dealt with easily or quickly by simply adjusting or assimilating to them.”<sup>16(p294)</sup>

In dealing with acculturation stress, help-seeking behavior has been researched as a coping mechanism in regard to stress and adaptation.<sup>17,18</sup> Previous research from Yu et al.<sup>19</sup> has pointed out that Korean Americans and Vietnamese Americans had the lowest levels of prenatal care use. Even though, “women’s knowledge and beliefs

about the importance of care during a normal pregnancy are likely to be important factors, particularly for recent immigrants.”<sup>19(p1867)</sup> However, the literature on help-seeking to deal with acculturative stress among Vietnamese immigrant (expectant) mothers living in the United States is still limited. Therefore, the profound knowledge of the help-seeking needs and behaviors to navigate health acculturation among these mothers is needed.

## Social support

Social support has been studied since the 1960s across the sociology and public health disciplines.<sup>20–23</sup> According to House,<sup>21</sup> social support theory researches the three aspects of social relationships including existence and quantity (e.g. social integration), their formal structure (e.g. social networks), and their functional/behavioral content (e.g. the most precise meaning of “social support”). Social support can be seen in “the perceived or actual instrumental and/or expressive provisions supplied by the community, social networks, and confiding partners.”<sup>20</sup>

Tardy<sup>22</sup> conceptualized social support in five dimensions: direction, disposition, description/evaluation, network, and content. Disposition includes two dimensions of availability and enactment. Networks of social support including sources and members of a support network, consisting of many forms such as family, friends, pets, neighbors, coworkers, and organizations.<sup>21</sup> Description/evaluation refers to “whether an evaluation of an individual’s social support or simply a description of that social support was elicited.”<sup>21(p1)</sup> Support directions are considered in both dimensions of giving and taking.<sup>21,22</sup>

Social support types/content were categorized differently. For example, according to Tardy<sup>22</sup> social support content include emotional, instrumental, informational, and appraisal ones; in which, emotional support can be seen in trust, love, and empathy. Instrumental support consists of resources such as money and time. Informational support can be seen in information and advice; and appraisal support refers to evaluative feedback. Although Walter<sup>23</sup> argued five types of social support are emotional, informational, instrumental, material, and spiritual ones. In which, spiritual support refers to the support that related to belief and spiritual practices.

Cultural differences have also been considered in social support research.<sup>24</sup> Although Western culture is perceived to be more individualistic, many Asian cultures are seen to be a collective unit of society.<sup>25</sup> In Western countries, social support is conceptualized as a transaction of one person helping another person, and Westerners do not worry that asking for help will risk losing face.<sup>25</sup> However, in a more collective society, people are less likely to use the personal help of other people due to the concern about affecting esteem and the relationship.<sup>26</sup>

Additionally, aside from social support, Morling et al.<sup>27(p1534)</sup> 2003 argued that “social assurance,” which means “aligning oneself with the influence of others,” can also help to reduce stress.

In sum, social support is culturally varied and can be understood as “the perceived or actual instrumental and/or expressive provisions supplied by the community, social networks, and confiding partners.”<sup>20</sup> For the current research, social support–related concepts help to shed light on the operationalization of online social support provided and received by Vietnamese immigrant (expectant) mothers in the United States by using Facebook groups.

### Online social support

Online social support has emerged since the 1990s, the beginning of the internet era, with the formation of the dial-up bulletin board service. The development of large commercial groups such as Prodigy, CompuServe, and America Online has marked new communication means of online communication and connection. In the mid-1990s, the use of listservs and emails based on health conditions soared.<sup>28</sup> The online community has been further developed with the use of the world wide web, enabling the popularity of discussion boards and chat services. The quantity and quality experience of online support has also improved; in which, help-seeking can quickly pass from one to another and the support can exponentially gain.<sup>28</sup>

Online social support comprises three factors: (1) structural aspects of the social network, (2) functional assistance available or received, and (3) nature of the support.<sup>28</sup> The online community has been further developed and enabled by the popularity of discussion boards and chat services. According to LaCoursiere,<sup>28</sup> the quantity and quality of online support have also improved while the traditional characteristics of social support have been retained. As a result, help-seeking can quickly pass from one user to another and the support can also be gained.

Moreover, Hwang et al.<sup>29</sup> argued that online support carries similar characteristics to offline ones with further benefits. Online social support also offers convenient, anonymous, and nonjudgmental interaction. Furthermore, online social support helps people deal with stress and relationships and receive encouragement.<sup>30</sup> As a result, users’ subjective well-being can be improved by online social support<sup>31</sup> as online social support can provide emotional comforts.<sup>29</sup>

### Vietnamese immigrant and acculturation

Different forms and generations of immigrants from Southeast Asia living in the United States have faced intersectionality of identity, especially those from Vietnam, Cambodia, the Philippines, Malaysia, Indonesia, and Laos

in the United States. Because they come from different countries in the regions but often to be seen under an umbrella of Asian or Southeast Asian.<sup>32–34</sup>

Among these groups, the intersectionality of identity can be seen as a five processes identity model, including enculturation to ethnic cultures, acculturation to the dominant culture, awareness of oppression, redirection of salience, and integration of dispositions.<sup>35,36</sup> These processes are rather interconnected and interactive than to be unidirectional or single one.<sup>33</sup> For the (expectant) mothers in the current research, the intersectionality of identity can also be seen in the mixture of the identity of being a Vietnamese living in the United States and the identity of an (expectant) mother.

With regard to the use of social media in intersectional identities, Linh Le-Phuong et al.<sup>37</sup> interview 17 female Vietnamese immigrants who belong to two subgroups (1) those who migrated to China and returned and (2) those who marry Taiwanese men and remain staying on the migrants’ multilayers of identities and intersectionality and the use of social media. The study found that social media use patterns of the Vietnamese female migrants are impacted by their intersectional identities of being female that social media use patterns of the Vietnamese female migrants are impacted by their (returned) migrants of a specific social class, ethnicity, education level, and age group.<sup>37(p292)</sup>

Vietnamese immigrants’ health behavior navigation in acculturation has been explored as interdisciplinary research for decades. Studies can be found exploring health issues of Asian and Vietnamese immigrants<sup>3,26,38–40</sup> and acculturation and health among these immigrants.<sup>41–43</sup>

With regard to barriers to health issues for female immigrants in acculturation, Steward and Do<sup>42</sup> used a qualitative research strategy involving focus group discussions and in-depth interviews with Vietnamese women between 18 and 65 years and interviews with Vietnamese healthcare providers. The finding indicates that “the main barriers these women faced when accessing health services were associated with language difficulties, transportation, time and health literacy—broadly defined as knowledge about preserving and promoting their health.”<sup>42(p250)</sup> Most of the women in the focus groups and interviews revealed a limited understanding of mainstream health services, including how they work, what services are provided, how to access those services, and even where the services were located.<sup>42(p252)</sup>

Regarding motherhood and acculturation of Vietnamese immigrant mothers in Taiwan, Tsai et al.<sup>43</sup> content that maternal practices and challenges of these immigrant women were organized into five domains: proud of being a mom, having a position in the family by having a son (not just a paid nanny), raising children in the hosting culture style (not the Vietnamese one), shared responsibilities of raising children, and obstacles of being an

immigrant mother.<sup>43(p91)</sup> In particular, having a son in the Taiwanese culture set up, a position for the immigrant mothers in the family, rather than being considered just as a paid nanny if they gave birth to only girls.<sup>43</sup> This can be said that such immigrant mothers find this domain significantly influence the process of adjusting to adapt to the culture of Taiwanese society. However, in the literature, a comprehensive research of what are the domains and how they influence health navigation during acculturation of Vietnamese immigrant (expectant) mothers living in the U.S. remained unclear.

### Online social support and health utilization in acculturation for Vietnamese immigrant (expectant) mothers

Previous literature showed some verdicts on the benefit of social media use on online social support and acculturation. On the one hand, for immigrants, social media usage “enables a background awareness of friends and acquaintances that supports bonding capital and transnational communities in ways not previously reported.”<sup>44(p1075)</sup> “Bonding social capital” is in the form of social capital describing connections within a group or community characterized by high levels of similarity in demographic characteristics, attitudes, and available information and resources. Although “bridging capital” is explained as the group members creating ties with other members of the other groups.<sup>44–46</sup>

Johnson<sup>47(p330)</sup> argued that discussing pregnancy and parenting on social media may be appealing because “mothering is so intensive.” The author pointed out that social media platforms and applications also allow women to “share experiences which can be supportive and comforting.”<sup>47(p335)</sup> Robinson et al.<sup>48</sup> pointed out that breastfeeding peer support Facebook groups provide the highest amount of support compared to the other supporting source, which in turn generates a significant correlation with intended breastfeeding duration among African American mothers in the United States. Furthermore, Mitra and Evalsluong,<sup>49(p474)</sup> furthermore, argued that the evidence on social media use among migrants shows that “social media-based interaction of migrants is not encouraging integration, while their digital proclivities tend to define their narratives of online ethnicity and their physical realities.”

Researchers have also explored the use of social media during pregnancy and motherhood regarding prenatal care,<sup>19,50</sup> information seeking,<sup>29,51</sup> and online posting and pregnancy.<sup>52,53</sup> Groleau et al.’s<sup>50</sup> in-depth interviews were employed on 20 participants using purposive and snowball sampling. The findings indicated that Vietnamese immigrant mothers living in Canada hatching due not to the acculturation process but due to the practice of the family where

they were not allowed to conduct postnatal traditional rituals thus jeopardizing mothers’ perceived health and the quality of their milk. Haslam et al.<sup>51</sup> employed a survey of a total of 523 parents with at least one child aged 2–12 years (target child). The study indicated that Facebook was the most popular social network and parents used social media for information seeking and advice but not for emotional support. Similarly, Oviatt and Reich<sup>54(p5)</sup> found that Facebook posts “give more general pregnancy-related information or opportunities for personal sharing.” These online resources can enhance acculturation. However, the opposite could also be true if online activity with groups perceived as similar becomes so intense that it prevents acculturation from happening.<sup>47,54</sup>

Additionally, there is yet to research on the groups of Vietnamese (expectant) mothers living in the United States using social network groups to seek and provide social support to navigate health in the context of acculturation. To tackle the research gaps, this study aims to answer the below questions:

### Research questions

RQ1: Why do Vietnamese immigrant (expectant) mothers in the US join Facebook groups to navigate their health behavior in acculturation?

RQ2: How do Vietnamese immigrant (expectant) mothers in the US provide/receive online social support for health purposes during pregnancy and motherhood?

RQ3: What are the benefits of social media use on these Vietnamese immigrant (expectant) mothers and their (expected) child(ren) in regards to health in acculturation?

### Methods

To answer the research questions, this research employed 18 in-depth interviews with Vietnamese immigrant (expectant) mothers. The participants were recruited from two Facebook groups, “Viet mothers in the US” and “Viet families in the US,” using convenience sampling. The interviews lasted from 30 to 45 minutes. All participants were given pseudonyms for privacy. The interviews took place via Facebook Messenger calls (without videos) with the main investor of this research. These interviews were recorded and transcribed by the researcher in Vietnamese. The transcript was then translated to English and proofread by an American English native speaker. The translated manuscripts were then retranslated to Vietnamese by another translator to validate the excitability of language.<sup>55</sup> Finally, the transcripts were coded in English using Microsoft Word software.

## Data collection

During two months of data collecting, we interviewed 18 Vietnamese immigrant women. First, we pinned the recruitment post on both groups, asking any women in the age range and being pregnant or having babies or toddlers under the age of 3 to register on a Google drive document. The file contained some screening questions regarding age, age of child(ren), U.S. state of residence, and province of origin in Vietnam. After two weeks, 36 women registered. We screened through the demographic information and contacted 30 women using the provided contact information, and in the end, interviewed 18 women. We expected to capture a diversity of cultural background and living environment both in the country of origin (Vietnam) and the country of residence (the U.S.). We also tried to interview participants living in different settlement including urban areas, medium-size cities, and rural areas. A 43-year-old woman, who has lived in the U.S. for 13 years and has a three-year-old as her youngest child, was the oldest respondent (Appendix Table 1).

## Data analysis

Each participant reported was interviewed using a semi-structured interview format, in which questions are raised and conversations are allowed to go off-script. After being transcribed, the audio files were destroyed, and the coding was manually conducted in Microsoft Word files. The texts were converted into a table with three columns: the respondent's words (code), terms/concepts, and themes/categories, following Straus and Corbin's<sup>56</sup> method of open, axial, and selective codings. Although open coding allows researchers to pick up similar keywords/language items, axial coding is the process of putting back data, and making connections between codes in concepts/terms. Finally, the concepts/terms were coded into themes/categories by making connections among such terms/concepts. This inductive approach of coding allows researchers to derive concepts and themes relating to the research topic (Appendix Figure 1).<sup>57</sup>

This coding approach suggested and confirmed patterns of online social support in using Facebook groups for the navigation of health behaviors in acculturation among Vietnamese immigrant (expectant) mothers. During the coding process, we found repeated words or synonyms suggesting the reasons for using the social network groups, different forms of given/taken social support, and the benefits of such support on expectant mothers and their pregnancy and child(ren)'s health.

## Results

The data from 18 interviews presented three main themes which provide the contextual framework of the complex

relationships among (a) the motivations all forms of online social supports in help-seeking and providing for navigating health decision-making and references, (b) the dynamic of unbonding relationships in online social support, where online friendship is not likely to transcend to offline, and (c) the benefit of acculturative stress and anxiety release regarding health in acculturation. We discuss these findings below.

### Help-seeking for informational references in health decision-making (RQ1)

#### *Help-seeking for health references among real people sharing the real issues*

Thirteen respondents said that they started to seek Facebook groups on pregnancy and motherhood when they got pregnant and had questions about pregnancy. "There are many questions on health issues which we cannot find the answers to in books, internet, and or family," said Linh. Some said that they specifically looked for someone sharing the same or similar experience in pregnancy and childcare. Other respondents found the social network groups by referral. They also made the decision to refer the groups to friends. The participants actively read posts, remember, compare, and apply them if shared experiences are applicable:

"There is plenty of information on the internet. I can type a keyword, [and there is] a ton of information. However, it took time to compare or take references. I also wonder if the one who wrote the information has real experience. It seems to me that much information on the internet is theoretical. I want to have a more realistic view," said Ngan, a mother of two toddlers. Ngan shared her experience of having informational support from the group of "Viet mothers in the US" that she was so upset that her 10-month-old son often woke up and cried at night. Group members gave her a tip that she should not feed her child milk before bed. She tried to apply the tactic, and it worked. Facebook groups create a forum for those who "share the same experience or circumstances in the US" and "it is the matter of real people with real issues."

However, except for some active members, the respondents often refrained from expressing an opinion in the online environment, instead of reading posts and others' comments. "I keep it in mind, and I try to see if it works for me," Chan said. Thanh, a healthcare worker at a hospital in Utah, said that "there are still many things I can learn from the groups." Thus, she often reads to collect information rather than sharing hers. Twelve respondents shared the same approach to using such Facebook groups: they followed and read all the comments on a post about a health

or health system issue to see how other members of the group reacted. However, they barely commented on such posts.

### *Supplemental information for health decision-making*

Almost all of the participants said that they considered health information shared in the groups as a source of supplemental information rather than the main opinion for health decision-making. “I often tried the tactics about healthy lifestyle or diet,” Chan said. However, she added that the “bottom line” health issues such as the development of pregnancy or children, safety, or serious health issues will be dealt with “under the instructions of doctors.” She also shared that she liked the experience of using herbs or honey in daily beverages and applied it for herself and her family. Home remedies recommended in the groups seemed to be accepted and gratified only if they were not about disease cures or treatments.

Anh, a group administrator, recalled that she read a post from another young mother complaining that she did not have enough milk and then another post on how to cure “clogged milk ducts,” or “how to do breast pumping at work.” The post attracted hundreds of likes and comments with robust shared information. Then, she said, “I do not hesitate to give such things a try.” However, for more health serious issues such as breast abscess, “I will absolutely ask and follow what my family doctor said,” Anh added.

There were also times when certain advice was seriously taken. Ly told the story about how her child got eczema, which made the child itchy and fussy. She took her son to the doctor and got a prescription. However, she posted to ask whether the medicine is good to cure eczema. Some members warned her that the medicine “contains the composition of sleeping pills.” She decided not to give the child the medicine and find another doctor. Evidently, these respondents showed a clear strategy in terms of using the information on social media for health decision-making. They take all information into consideration; however, health decisions are made based on the seriousness of their issue and health judgment. Information on Facebook groups is often used as advice rather than a second opinion for health-related issues. In more critical circumstances, the respondents called doctors or went to emergency facilities.

### *Reducing stress of doctor–patient relationship obstacles*

The doctor–patient relationship is one of the reasons motivating Vietnamese immigration (expectant) mothers to share emotion in Facebook groups. “I expected that doctors/

nurses would ask me questions and provide me with advice,” Hien said. However, she said, “doctors did not ask much, then sent me home without much explanation.” Hien emphasized that was why she wanted to ask and share with other mothers in the groups. Hang shared a bad experience in using the official healthcare system in the U.S.: “My son got a fever and cried. I brought him to the emergency room. Doctors did not explain much, only said ‘he is ok’ and sent us home without any treatment.” Three days later, “my son still had a fever, I called the doctor again, and he told me to keep observing and waiting. I did not know what to do. I got mad,” she recalled.

Therefore, the groups have become a reliable space for them to share their concerns while waiting for the situation to change or for appointments to be scheduled. There is a common experience among respondents on the expectation for “better care” and “better communication” from doctors and healthcare workers. Even though several respondents have no difficulties communicating in English, they still prefer a “more expression of care” in dealing with stressful situations. Five participants reported that they interacted with the group due to the lack of competence in communication with doctors in healthcare facilities. In this case, Facebook groups seem to be more useful and friendly.

Moreover, during the Covid pandemic, the online social networking groups provide them with a forum so that “I know there are also many people suffering, I am not alone. If everybody is in this together, I can get through it, not to be too pessimistic,” Linh said. Facebook groups are acknowledged to mentally support Vietnamese immigrant (expectant) mothers during isolation. These virtual interactions have provided some senses of a relationship and meaningful emotional support.

### **Unbonding relationships in receiving and providing online social support (RQ2)**

#### *Someone I know, not a “bond” relationship*

Participants showed fewer reflections on the role of the groups in fostering friendship and companionship. Fourteen women said that they sometimes send direct messages to other women in the groups to ask specific questions, but they did not make new friends. Some said that “online friends are different from offline friends; friends I made for a short time are different from those who I have had since childhood.” They can ask questions or share their experiences on the issues that “only [Viet] women here [in the U.S.] can understand.” Quynh, a pregnant woman and mother of a two-year-old son said “there are some health or healthcare system issues that my friends in Vietnam could not understand.” Therefore, Viet mothers in the two groups can share more applicable knowledge. “I trust them, ask them and expect good answers,” Quynh said. However, it is far from making “real friendship.”

Anh is the only respondent who said that she has made a lot of new friends via the groups, “about 30 of them,” she said. “I consider them as equal as my offline friends, no different.” She also met a few mothers on one of her work trips. She considers herself a person who makes friends easily, and she does not “distinguish between online friends vs. offline friends or friends made a long time ago vs. those I just made.” Friends made on the two Facebook groups, for her, are people who have similar experiences and concerns, so that she treats every friend equally.

Two other participants said they made some new friends, coming from the same provinces in Vietnam, having children the same age, or living close by in the States. There is an offline group of 20 (expectant) mothers in California. They sometimes get to meet in person even though the group does not have either a permanent meeting place or a concrete meeting schedule. A member explained that the meeting is for those women to hang out and talk about common topics such as sleep training or weaning. This is to say that even though Facebook creates a convenient and open platform for online discussion among shared “being-a-mother” identity women, making friends, online and offline. However, these settings seem to need a more significant level of trust and bonding to become more common.

### *Sympathetic and empathetic aspects of emotional sharing*

In emotional sharing, the respondents reflected on both sympathetic and empathetic aspects. With emotional information, based on the level of understanding and “related” to one’s experience, they decided whether to actively join the discussion in the groups. In particular, if “I read some emotional information, and I felt bad for them, but I did not know how exactly it felt, I would react with emotional icons,” Lan explained. Furthermore, if “I felt it related to me, or I had experienced similar circumstances, I would comment,” she said.

In other words, sympathy, the ability to take part in someone else’s feelings, seems to stimulate respondents to express by emoticons in the groups; while empathy, the ability to understand other people’s feelings as if we were having them ourselves, will trigger the need and willingness to comment and actively join the discussions. Some participants admitted that hesitancy toward emotional sharing in the group was the feeling of “uncomfortable to share.” There are concerns of having an unsuitable reaction in reacting to others’ emotions. Our data showed that the concern of privacy or revealing personal information was not the main reason for not actively sharing emotions among group members.

### **Acculturative stress and anxiety release during pregnancy and child care (RQ3)**

#### *Acculturative stress and anxiety release*

Facebook groups were said to interestingly provide emotional support for their members to release anxiety regarding health issues during the time they have to deal with acculturative stress. For example, Mai is a new immigrant mother in the U.S.; she has resided to the country for more than two years and gave birth in December 2020. Three weeks before labor, she started to share and update the information of her final trimester and her experience of waiting for labor in “Viet mothers in the U.S.” group.

She posted on abnormal health, eating, or sleeping behaviors. She counted down the number of days left till labor. She took selfie photos and shared them with the groups. When she knew she would need a C-section, she kept updating about her situation. She explained that “this helped me in releasing stress before labor. I was a first time pregnant woman and did not speak English very well.” During the Covid pandemic, she was in the “section C” alone. “I almost had a panic attack. I expected other mothers in the group to give advice and encouragement. I felt that I was not alone, I could do it,” Mai recalled.

Most of the respondents reflected that they felt less stressed or had less anxiety when they shared or got information in the two Facebook groups, saying they felt much better. Without support from the groups, “I would have to take care of myself and my child and worry if I were doing the right things,” Mai said. In any case, “just a little clue or suggestion can guide me to a better understanding and saving much time and money,” she said.

#### *Shared “(expectant) mother” identity over Vietnamese identity in acculturation*

The research found an interesting Intersectionality of the identities of being an immigrant Vietnamese and being an (expectant) mother living in the United States. Even though they trust and follow guidelines from official health-care workers, they tend to seek a “second opinion” from other group members. Being asked for the motivation for this dynamic, many respondents said that they “want to hear from people with the same experience” (Ngan and Hoa, interview transcript). More importantly, the role of shared identity in this dynamic has shown to be important. However, participants reported that the identity of being a mother or being pregnant living in the United States has been weighted more importantly than the Vietnamese identity in connecting members in these Facebook groups. This means the identity of being an immigrant (expectant) mother seems to affect these participants more severely in seeking online social support than the general identity of being a Vietnamese living in the U.S..



The groups are exponentially helpful with those (expectant) mothers who are not fluent in English, have less time living in the country, do not have family or friends in the United States, and are pregnant/a mother for the first time. The language barrier can also be seen as the factor that attracted immigrant mothers into the groups. Over ten respondents said that they or someone they know, who had less English competency, considered Facebook groups as the main source of information seeking on health issues. “Sometimes it is very difficult to understand health issues in English. I prefer to ask our Viet fellows,” said Le, a pregnant woman living in the U.S. for over a year. Hien explained that “I asked what words I should use to explain my health situations with doctors and nurses.”

On the one hand, the lack of support from friends and family is also a motivation for them to seek and share information on the groups. Without support from friends and relatives, social media and their husbands seem to be the best channels for dealing with health issues, especially during pregnancy and child care. In the other words, these Facebook groups seem to be the most open environment in supporting them to deal with the beginning process of exposing and exploring the new culture. On the other hand, the women who have lived in the U.S. longer and have better English fluency tend to be more active in the role of support providers. “I feel like giving is the way of supporting one who encounters the same difficulties I used to,” said Thuy, a woman who has lived in the U.S. for over four years. “I thought of myself four years ago. I always spend time giving them information I know.” These women are at a further stage of acculturation and have a better adaptation to the new country.

### Transforming from help-seekers to help-providers

Almost all interviewed women stated that they benefited from shared information in the researched Facebook groups. Hien, a mother of a two-year-old son and three-year-old daughter, recalled that during her first year in the U.S., she did not know much about the healthcare system and social security. She believed she could not get a pregnancy checkup; and if she could, it would be too costly. She did not seek to visit doctors until the end of the first trimester. Later on, she found out that she could access free healthcare programs.

That was also the reason that whenever Hien sees any “naive questions from a newcomer,” she will try her best to respond. “Even if I do not know the exact answer, I would try to give them some clues so that they can seek or research better information,” Hien said. “I tagged people that may know the answers. I want those who need help to get helped.” The findings showed that as they spend more time in the new country, social support seekers, who have resided for a shorter period of time,

and less language proficiency, tend to transform into social support providers as they gain more years of residence, more profound experience, and better language skills.

## Discussion

Online social support has been found on blogs, Facebook groups, health forums, and online support groups, which can help to relieve the difficulties of being a mother. Because motherhood in the internet era is “an embodied project which encompasses digital health, responsible bio citizenship, accessing the internet as a source for support”; therefore, the motherhood is also “changing the way pregnancy and mothering are understood and practiced.”<sup>47(p331)</sup> Our findings showed that the immigrant (expectant) mothers employed relatively cautious and strategic approaches in providing and receiving online social support on Facebook groups.

First, *informational* and *emotional* supports are the most common engagements among Vietnamese immigrant (expectant) mothers on Facebook, which helps to reduce acculturative stress and aids their and their child(ren)’s health. The typical motivations for seeking informational and emotional support on Facebook groups were the challenges of being an immigrant mother with the lack of information/experience and adequate support. Being a mother is a life transition and a time of “increased needs for social support.”<sup>58(p486)</sup> New experiences in both self-differentiation and body-differentiation are often observed in (expectant) mothers (Talmona et al., 2020). Being an immigrant mother is even more challenging due to the mixture of difficulties in bearing and rearing children in the new culture and the social and political exclusion of being an immigrant.<sup>43</sup>

Participants reflected that they and their children/pregnancy benefited from *informational and emotional support* from Facebook groups by reducing anxiety and stress relating to health and acculturation issues. The informational support has been acknowledged as the main references for health decision-making, which also helped to release acculturative stress. These findings consist of the previous studies arguing that online social support can provide emotional comforts, helpful in dealing with stress, and improve well-being.<sup>29–31</sup>

However, a lack of mutual partnership among doctors and patients, which is likely to “increase the patient’s sense of perceived control and, at the same time, decrease stress levels,”<sup>59(p27)</sup> is the main reason leading to the needs of emotional sharing on the researched Facebook groups. In this regard, the *doctor–patient relationship* and *language competency* can be seen as the main barriers. Having lower-than-expected informational or emotional support from the official healthcare system, such (expectant) mothers seek support from those who speak the same

language and have the same cultural background. This helps them to be more comfortable expressing their emotional constraints. This finding was somehow associated with Luu et al.'s<sup>60</sup> finding that “the Vietnamese participants selected physicians of Vietnamese or Chinese ethnicity rather than mental health specialists.”<sup>60(p478)</sup>

Migrating to another country, these (expectant) mothers experience a lack of *social support networks*. The network is a social structure made up of a set of social actors such as individuals or organizations, sets of dyadic ties, and other social interactions between actors.<sup>61</sup> Losing social support is common for immigrants who have left behind the crucial social networks of family, relatives, and friends. Vietnamese immigrants are among the ethnic groups where extended family support is traditionally emphasized, and they often expect to have solid interpersonal support, especially in times of transition and crises.<sup>62</sup> Moreover, in an individualistic society, people can ask for social support as an explicit transaction and do not worry about losing face or negatively affecting relationships.<sup>26</sup> In the more collective society, people seek to maintain “harmony within the social group” as “their social support from the recognition of being part of a harmonious, interdependent community to which they have responsibilities and obligations.”<sup>25(p306)</sup> Hence, the people in these cultures showed hesitation in asking for social support as a transaction based on a form of voluntary relationship.<sup>25</sup> As a result, online resources in this circumstance perhaps can be seen to be a crucial alternative for *help-seeking* among Facebook group members.

The research also found that participants emphasize intersecting identities between being Vietnamese immigrants and being (expectant) mothers living in the U.S. as a motivation for them to join and remain participating in such Facebook groups. Particularly, they outweighed the later than the sooner in this intersectionality of identity. The findings also consist of an insight from Linh Le-Phuong et al.<sup>37</sup> that social media use patterns of Vietnamese female migrants are impacted by their intersectional identities of being female, (returned) migrants of a specific social class, ethnicity, education level, and age group.<sup>37(p292)</sup>

*Second*, even though sharing the identity of being a mother, *bonds* with online friends are relatively low and unlikely to be translated to real-life friendship. Several studies have examined “bonding capital” and “bridging capital” and the uses of social media, especially social networking sites.<sup>44,46,63</sup> In this environment, “*bonding capital*” links strengthening relationships among members within a group while “*bridging capital*” links members of different groups. Other literature explores the level of strength of such relationships, comparing strong ties and weak ties.<sup>44</sup> In this study, however, we found fewer evidence of a friendship connection among group members.

Particularly “*bonding capital*” seems not to be a visible factor for these (expectant) mothers. The “*bridging capital*” can also be seen among members of the two groups, especially for those who are members of both groups. Such members refer to both groups in their interview respondents. A few respondents make new friends or create offline groups; however, these are not the common practices. Those who can make some new friends and shift from online to offline tend to rely on some additional connections, such as coming from the same geographical area in the country of origin, having children of the same age or with the same health conditions, or living geographically close to each other in the U.S..

Moreover, the respondents showed a significant interest in *passive interactions* with the groups. Most of them expressed their hesitation in posting, commenting, or arguing over Facebook group posts. They were either refraining from confrontation or afraid of giving “inappropriate answers.” It can be said that social networking groups seem not to be a bonding-friendly environment, even though the members found that the groups are helpful informationally and emotionally. This can also be seen as extending an insight from a previous study that “migrants’ sense of engagement with ‘others’ were not simply rooted in physical interactions.”<sup>49(p478)</sup>

*Finally*, the groups show the best impacts on women during pregnancy or with child(ren) under three years old, living in the U.S. for a shorter time period, unable to communicate fluently in English, and having no support from relatives in the U.S. Shorter time living in the U.S. and lower English competency have been reported as the major barriers to the confident and independent use of the healthcare system among participants. Therefore, these Facebook groups provide meaningful support to such women. The findings also confirmed Jang’s et al.<sup>15</sup> findings about the correlational relationship between physical and mental health among immigrants and the number of years of living in the hosting countries.

For Vietnamese immigrant (expectant) mothers, the different stages of acculturation can be seen in the group of newly arrived women, who have been in the hosting country for a shorter time, have low English competency, and have less support from family, relatives, or friends. Women who have been in the host country longer and have better English fluency tend to provide more support in these groups. Therefore, online engagement among these women on Facebook groups positively supports the acculturation process among the “*newcoming*” women in navigating their health terrains. In this regard, *help-seekers* often become *help-providers* over time. This can be explained by the finding that “Asians may be more likely to use and benefit from social support when it takes this more interdependent form.”<sup>26(p1605)</sup> In other words, these women might feel distressed if they only receive social support and do not have social support per se.

## Limitations of the research

The current research tried to capture a wide range of Vietnamese immigrant mothers and expectant mothers living in the U.S. in terms of age, pregnancy or childcare, number of children, and geographical areas of origin and place of residence. However, it is difficult to capture immigrant (expectant) mothers living in all over 50 states and territories in the U.S. with only 18 interviews. The participants living in a different setting such as urban, suburban, or rural may not be comprehensively captured. Furthermore, it is also difficult to capture women with different immigration statuses, such as legal vs. illegal, short-term vs. long-term, or residing with vs. without family. Thus, the marriage status such as single vs. married/living with partner, and Vietnamese vs. non-Vietnamese spouses cannot be fully covered in this study.

## Conclusions

In this research, the author seeks to provide insights on personal experience on the uses of social media in the process of health acculturation among Vietnamese immigrant (expectant) mothers in the U.S. We found that Facebook groups do not provide the best environment for improving “bonding” social capital for its members. However, these groups provide a platform where “strangers help strangers” overcome the various barriers to sufficiently understand and independently access and use the official healthcare system, aiding their pregnancy and their child(ren)’s health.

The interview results also indicated that physical or geographical accessibility to the healthcare system is not as necessary to impact health issues and acculturation as the lack of experience, language barriers, and patient–doctor relationships for this group of immigrants. Almost all respondents said that they live within a 30-min drive of the nearest healthcare facility. However, the intangible difficulties of accessibility, such as the ability to independently communicate with healthcare workers, the lack of understanding of how the healthcare system works, and communication and cultural barriers in the doctor–patient relationship were among the major concerns of Vietnamese (expectant) mothers in the U.S.s, which then encourage them to join the social network groups.

In this Facebook group environment, the use of social media has been found partly against previous literature that social media usage supports “bonding capital” in transnational communities. However, the informational and emotional supports provided by Facebook groups among (soon-to-be) mothers helped them tremendously in overcoming acculturative stress. Moreover, with better language skills, knowledge, and experience in using health and social security systems, help-seekers tend to be transformed to help-providers to deliver support for those “newcomers.”

This research contributed to the exploration of the qualitative aspects of the different factors in the behavioral

model of health utilization in a specific community living in the U.S.. These different aspects were taken into consideration in the context of using social network groups to seek and provide online social support in navigating health issues for Vietnamese immigrant (expectant) mothers in the residing country. The research procedure can be easily replicated for other ethnic groups in the country to provide more comprehensive insights over how immigrant (expectant) mothers navigate their and their (future) child(ren) health during the acculturation process. Practically, this research can contribute to recommendations for healthcare systems and policy makers about an efficient channel to reach this research population. Scholars of health behaviors and ethnic groups in the U.S. can also find useful insights about the topic of online social support for health issues among pregnant women and mothers of babies and toddlers as a group of immigrants living in the country.

Given the research findings, we would recommend to expand the research groups to other ethnics with similar and different cultural backgrounds in the U.S., such as other Asian communities, the communities of Pacific Islanders, and communities of African (expectant) mothers living in the U.S. for a more comprehensive understanding of the motivations, social support, and benefits of using social media networks among such immigrant (soon-to-be) mothers. The research also expects to recommend a more cultural-competency approach for healthcare workers in providing health service for these specific groups. Moreover, a more strategic approach is also needed to take advantage of such social media groups to approach different ethnic groups regarding critical issues such as health and health behaviors.

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**Guarantor:** Nhung Nguyen

**ORCID ID:** Nhung Nguyen  <https://orcid.org/0000-0002-6208-0849>

## References

1. The United State Census Bureau. Data release. 2015, <https://www.census.gov/programs-surveys/acs/news/data-releases/2015.html> (2015, accessed 10 July 2021).
2. Pew Research Center. Vietnamese in the U.S. Fact Sheet. 2017, <https://www.pewsocialtrends.org/fact-sheet/asian-americans-vietnamese-in-the-u-s-fact-sheet/> (2017, accessed 10 July 2021).
3. Pham TB and Harris RJ. Acculturation strategies among Vietnamese-Americans. *Int J Intercult Relat* 2001; 25: 279–300.
4. Mistry Y, Freedman M, Sweeney K, et al. Infant-feeding practices of low-income Vietnamese American women. *J Hum Lact* 2008; 24: 406–414.
5. Andersen RM. Revisiting the behavioral model and access to medical care: does it matter? *J Health Soc Behav* 1995; 36: 1.
6. Andersen R and Newman JF. Societal and individual determinants of medical care utilization in the United States: *societal and individual determinants of medical care utilization*. *Milbank Q* 2005; 83: 95–124. Epub ahead of print December 2005.
7. Berry JW, Kim U, Minde T, et al. Comparative studies of acculturative stress (Canada). *Int Migr Rev* 1987; 21: 491–511.
8. Berry JW. Conceptual approaches to acculturation. *Acculturation: Adv Theory, Meas, Appl Res* 2004: 17–37.
9. Ferguson GM, Bornstein MH and Pottinger AM. Tridimensional acculturation and adaptation among Jamaican adolescent-mother dyads in the United States: Tridimensional acculturation and adaptation. *Child Dev* 2012; 83: 1486–1493.
10. Yoon J, Johnson DJ, Qin DB, et al. Quad-dimensional acculturation, cultural integration, and life satisfaction of South Sudanese refugee young adults in the United States: a quasi-longitudinal qualitative study. *Cult Divers Ethnic Minor Psychol* 2022; 28: 379–388.
11. Berry JW. *Theories and models of acculturation*. UK: Oxford University Press. Epub ahead of print 10 January 2017. DOI: 10.1093/oxfordhb/9780190215217.013.2.
12. Medina AC, Rowley SJ and Towson S. Race matters for black Canadians: the intersection of acculturation and racial identity in emerging adulthood. *Emerg Adulthood* 2019; 7: 97–108.
13. Glozman J and Chuang SS. Multidimensional acculturation and identity of Russian-speaking youth in Canada: the role of parents. *J Adolesc Res* 2019; 34: 464–488.
14. Berry JW. Intercultural relations in plural societies. *Can Psychol* 1999; 40: 12–21.
15. Jang Y, Kim G, Chiriboga D, et al. A bidimensional model of acculturation for Korean American older adults. *J Aging Stud* 2006; 21: 267–275.
16. Berry JW. Stress perspectives on acculturation. In: Sam DL and Berry JW (eds) *The Cambridge handbook of acculturation psychology*. UK: Cambridge University Press, 2006, pp.43–57.
17. Gottlieb BH. Lay influences on the utilization and provision of health services: a review. *Can Psychol Rev / Psychol Can* 1976; 17: 126–136.
18. McKinlay JB. Some approaches and problems in the study of the use of services—An overview. *J Health Soc Behav* 1972; 13: 115.
19. Yu SM, Alexander GR, Schwalberg R, et al. Prenatal care use among selected Asian American groups. *Am J Public Health* 2001; 91: 1865–1868.
20. Cullen FT. Social support as an organizing concept for criminology: presidential address to the academy of criminal justice sciences. *Justice Q* 1994; 11: 527–559.
21. House JS. Social support and social structure. *Sociol Forum* 1987; 2: 135–146.
22. Tardy CH. Social support measurement. *Am J Community Psychol* 1985; 13: 187–202.
23. Walter N. Internet social support. A socio-pedagogical study. *Poznań: Wydawnictwo Naukowe UAM* 2016: 29–58.
24. Gurung RAR. *Health psychology: a cultural approach*. 2nd ed. Belmont, CA: Wadsworth Cengage Learning, 2010.
25. Taylor SE, Klein LC, Lewis BP, et al. Biobehavioral responses to stress in females: Tend-and-befriend, not fight-or-flight. *Psychol Rev* 2000; 107: 411–429.
26. Kim HS, Sherman DK, Ko D, et al. Pursuit of comfort and pursuit of harmony: culture, relationships, and social support seeking. *Pers Soc Psychol Bull* 2006; 32: 1595–1607.
27. Morling B, Kitayama S and Miyamoto Y. American and Japanese women use different coping strategies during normal pregnancy. *Pers Soc Psychol Bull* 2003; 29: 1533–1546.
28. LaCoursiere SP. A theory of online social support. *Adv Nurs Sci* 2001; 24: 60–77.
29. Hwang KO, Ottenbacher AJ, Green AP, et al. Social support in an internet weight loss community. *Int J Med Inf* 2010; 79: 5–13.
30. Coulson NS, Buchanan H and Aubeeluck A. Social support in cyberspace: a content analysis of communication within a Huntington's disease online support group. *Patient Educ Couns* 2007; 68: 173–178.
31. Wong KE and Ma WWK. *Exploring relationship between online social support and individual online subjective well-being among young adults*. Fukuoka, Japan: ICA, 2016. [https://www.researchgate.net/publication/303147877\\_Exploring\\_relationship\\_between\\_online\\_social\\_support\\_and\\_individual\\_online\\_subjective\\_well-being\\_among\\_young\\_adults](https://www.researchgate.net/publication/303147877_Exploring_relationship_between_online_social_support_and_individual_online_subjective_well-being_among_young_adults).
32. Reyes A. *Language, identity, and stereotype among Southeast Asian American youth: the other Asian*. NY: Lawrence Erlbaum Associates Publishers. <https://psycnet.apa.org/record/2006-11793-000> (2017, accessed 25 February 2023).
33. Nguyen TV. Cultivating identities in a place called home: intersectional, ever changing identities of Vietnamese American youth in culturally sustaining spaces. *J Southeast Asian Am Educ Adv* 2020; 15: 1–26.

34. Lee SJ. *Unraveling the 'model minority' stereotype: Listening to Asian American youth*. 2nd ed. New York, NY: Teachers College Press, 2009.
35. Museus SD. *The misrepresented minority: new insights on Asian Americans and Pacific Islanders, and the implications for higher education*. 1st ed. Sterling, VA: Stylus Publishing, 2013.
36. Museus SD, Ledesma MC and Parker TL. Racism and racial equity in higher education: racism and racial equity in higher education. *ASHE High Educ Rept* 2015; 42: 1–112.
37. Le-Phuong L, Lams L and Cock RD. Social media use and migrants' intersectional positioning: a case study of Vietnamese female migrants. *Media Commun* 2022; 10: 192–203.
38. Chae S-M, Park JW and Kang HS. Relationships of acculturative stress, depression, and social support to health-related quality of life in Vietnamese immigrant women in South Korea. *J Transcult Nurs* 2014; 25: 137–144.
39. Nguyen QCX and Anderson LP. Vietnamese Americans' attitudes toward seeking mental health services: relation to cultural variables. *J Community Psychol* 2005; 33: 213–231.
40. Nguyen TV. *Health acculturation and type 2 diabetes management among Vietnamese, Chinese, Korean, and Latino adult immigrants in the US*. MA: Boston College Graduate School of Social Work, 2015.
41. Ito KL. Health culture and the clinical encounter: Vietnamese refugees' responses to preventive drug treatment of inactive tuberculosis. *Med Anthropol Q* 1999; 13: 338–364.
42. Stewart DE and Do BN. Health needs of migrant Vietnamese women in South-West Brisbane: an exploratory study. *Aust J Soc Issues* 2003; 38: 247–261.
43. Tsai T-I, Chen I-J and Huang S-L. Motherhood journey through the eyes of immigrant women. *Women Stud Int Forum* 2011; 34: 91–100.
44. Komito L. Social media and migration: virtual community 2.0. *J Am Soc Inf Sci* 2011; 62: 1075–1086.
45. Berardo R. Bridging and bonding capital in two-mode collaboration networks: bridging and bonding capital in collaboration networks. *Policy Stud J* 2014; 42: 197–225.
46. Ellison NB, Steinfield C and Lampe C. The benefits of Facebook "friends:" Social capital and college Students' use of online social network sites. *J Comput Mediat Commun* 2007; 12: 1143–1168.
47. Johnson S. Maternal devices, social media and the self-management of pregnancy, mothering and child health. *Societies* 2014; 4: 330–350.
48. Robinson A, Lauckner C, Davis M, et al. Facebook support for breastfeeding mothers: A comparison to offline support and associations with breastfeeding outcomes. *Dig Health* 2019; 5: 205520761985339.
49. Mitra A and Evansluong Q. Narratives of integration: liminality in migrant acculturation through social media. *Technol Forecast Soc Change* 2019; 145: 474–480.
50. Groleau D, Soulière M and Kirmayer LJ. Breastfeeding and the cultural configuration of social space among Vietnamese immigrant woman. *Health Place* 2006; 12: 516–526.
51. Haslam DM, Tee A and Baker S. The use of social media as a mechanism of social support in parents. *J Child Fam Stud* 2017; 26: 2026–2037.
52. Golder S, Chiuvé S, Weissenbacher D, et al. Pharmacoepidemiologic evaluation of birth defects from health-related postings in social media during pregnancy. *Drug Saf* 2019; 42: 389–400.
53. Lupton D. The use and value of digital media for information about pregnancy and early motherhood: a focus group study. *BMC Pregnancy Childb* 2016; 16: 171.
54. Oviatt JR and Reich SM. Pregnancy posting: exploring characteristics of social media posts around pregnancy and user engagement. *mHealth* 2019; 5: 46–46.
55. Papadakis NM, Aletta F, Kang J, et al. Translation and cross-cultural adaptation methodology for soundscape attributes—A study with independent translation groups from English to Greek. *Appl Acoust* 2022; 200: 109031.
56. Strauss A and Corbin JM. *Basics of qualitative research: grounded theory procedures and techniques*. Sage Publication, 1990.
57. Fereday J and Muir-Cochrane E. Demonstrating rigor using thematic analysis: a hybrid approach of inductive and deductive coding and theme development. *Int J Qual Methods* 2006; 5: 80–92.
58. Strange C, Fisher C, Howat P, et al. The essence of being connected: the lived experience of mothers with young children in newer residential areas. *Community Work Fam* 2014; 17: 486–502.
59. Śliwińska Z, Makara-Studzińska M and Śliwiński Z. The patient-doctor relationship—A psychological perspective. *Media Stud* 2015; 3: 223–228.
60. Luu TD, Leung P and Nash SG. Help-seeking attitudes among Vietnamese Americans: The impact of acculturation, cultural barriers, and spiritual beliefs. *Soc Work Ment Health* 2009; 7: 476–493.
61. Wasserman S and Faust K. *Social network analysis: methods and applications*. Cambridge, NY: Cambridge University Press, 1994.
62. Bialik-Gilad. *The effects of immigration on social support networks of older Salvadorans*. University of Maryland, Baltimore. <https://www.proquest.com/docview/303590824/previewPDF/AAE0E75D93814795PQ/1?accountid=14556> (1988, accessed 25 December 2021).
63. Putnam RD. Bowling alone: America's declining social capital: originally published in journal of democracy 6 (1), 1995. In: Crothers L and Lockhart C (eds) *Culture and politics*. New York, NY: Palgrave Macmillan US, pp.223–234.

## Appendix

### Oral consent form

As a graduate student at the University of Kansas's Allen White School of Journalism and Communication, I am conducting a research project about the use of social media for health-related purposes among Vietnamese immigrant mothers living in the USA, who are members of Facebook groups of "Viet family in the USA" and "Viet mothers in the USA." I would like to ask you a few questions to obtain your views on your social media use as immigrant mothers or expecting mothers, staying in the

Codes/Keywords	Terms/Concepts	Themes/Categories
I cannot speak English very well, difficult to explain to doctors how sick I was, sometimes I need interpreters, I can only communicate simple language, I need helps with health languages	language barriers	
I wish they ask me more. I wish I have chance to tell them more, I want to share my concern about myself and my children health, doctors do not have much time, doctors do not talk much, I like doctors to communicate with me more	doctor-patient relationship	
I am here with my husband and children, I do not have family or friend here, we do not have many friends around, in Vietnam I have my mother and mother-in-law, I am alone here	lack of networks	<b>Obstacles pn health issues in acculturations</b>
information searching about kids' health, "I search information before I come to the US" posting on Facebook if I have questions about health issues, reading the posts and comments, I follow and explore about the people provide information, admins of the group helps to verify information, from information searching, posting on Facebook, reading the posts and comments, reading information	sharing and taking informational supports	
people give me complement, they share the feeling, they comfort me, they interact so that I do not feel alone	Emotional supports	
I meet some friend in real life, I do not make friend, Online friends are different form real life, they are not really friends	bonding capital, companionships	<b>Online social support provide/receive</b>
I got advice, I got information, I found information I need	Informational benefits	
I listen to doctors, I only use home remedies if it not about serious issues, I used home remedies for simple treatment, I follow doctors, I follow official healthcare	Health decision making	
giving what I do not use anymore but still usable, sometimes I donated for someone called when they are in difficulties	giving and taking material support	
help me to do sleep train for my kid, help me in understanding how insurance work	physical benefit	benefits of participating into social networking groups
help to reduce stress, make me feel better, comfort my feeling,	mental benefit	
identity of a mother rather than a Vietnamese, we are all mothers, we shared the same experience of being mothers, we have issues that only Viet mothers in the US can understand	Vietnamese identity, identity of mothers	Shared Identity
exponentially important for mothers of toddles, important for someone has lived here short amount of time, good for pregnant women, good for mothers of babies	First stage of acculturation, enculturation	Acculturation/E nculturation

Figure 1. Coding sample.

**Table 1.** List of participants.

No	Pseudonym	Age	Years	States	No	Pseudonym	Age	Years	States
1	Linh	24	2	Texas	10	Quynh	32	5	Nebraska
2	Ngan	23	2	California	11	Chan	46	13	Florida
3	Thanh	27	3	Ohio	12	Quyen	29	5	California
4	Le	26	5	Texas	13	Phuong	22	3	Missouri
5	Ly	26	2	Washington State	14	Tien	27	3	Illinois
6	Ngoc	29	1	California	15	Thuy	24	4	North Carolina
7	Minh	26	1.5	Illinois	16	An	29	1	South Carolina
8	Hoa	31	3	Washington DC	17	Mai	28	2	Georgia
9	Ngoc	27	3	Texas	18	Dao	31	1	Georgia

United States for at least one year and having pregnancy or/and doing childcare for infants and toddlers up to 36 months old. Your participation is expected to take about 60 min. You have no obligation to participate and you may discontinue your involvement at any time.

Your participation should cause no more discomfort than you would experience in your everyday life. The questions will be related to the obstacles in communicating with healthcare providers and using healthcare providers concerning language fluency and financial efficiency, and online social supports in terms of information, emotion, companionship, and instrument. Some of the questions may cause some discomfort such as some questions regarding the financial situation and friendship. Some personally identifiable information will be collected. Although participation may not benefit you directly, the information obtained from the study will help us gain a better understanding of the motivation, obstacles, and benefits of immigrant mothers using social media in pregnancy and childcare. Your identifiable information will not be shared unless (a) it is required by law or university policy, or (b) you give written permission.

*\*It is possible, however, with internet communications, that through intent or accident someone other than the intended recipient may hear your response.*

*\*\*This interview will be recorded. The recording is required to participate. You may stop taping at any time. The recordings will be transcribed by me. Only I, the investigator, will have access to recordings that will be stored in my laptop protected with a password and will be destroyed within 2 years.*

Your identifiable information will be removed from the data during this project. You will be assigned a pseudonym in the transcription. Your identifiable information will not be used or distributed for future research studies even if your identifiable information is removed.

Participation in the interview indicates your willingness to take part in this study and that you are at least 18 years old. Should you have any questions about this project or your participation in it you may ask me or my faculty supervisor, Nhung Nguyen at the Allen White School of Journalism and Mass Communication, the University of Kansas (Email: [nhungnguyen@ku.edu](mailto:nhungnguyen@ku.edu)/Phone number (786) 694-0366. If you have any questions about your rights as a research participant, you may call the Human Research Protection Program at (785) 864-7429 or email [irb@ku.edu](mailto:irb@ku.edu).