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Wanchalerm Ritthimon
Health Center for Ethnic Group, Marginal People and Migrant Worker, wanchaream.r@anamai.mail.go.th

Aksara Thongprachum
Faculty of Public Health, Chiang Mai University, aksara.t@cmu.ac.th

Jukkrit Wungrath
Faculty of Public Health, Chiang Mai University, jukkrit.w@cmu.ac.th

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A Qualitative Exploration of Exclusive Breastfeeding Practices Among Karen Ethnicity Mothers in Northern Thailand Remote Rural Areas

Wanchalerm Ritthimon[1], Aksara Thongprachum[2], Jukkrit Wungrath[2*]

[1]Health Center for Ethnic Group, Marginal People, and Migrant Workers, Lampang, Thailand, [2]Faculty of Public Health, Chiang Mai University, Chiang Mai, Thailand

Abstract

Low exclusive breastfeeding rates among the Karen ethnic group in Northern Thailand's remote rural areas underscore the need to understand knowledge, attitudes, and social support to develop targeted interventions. This qualitative study examined exclusive breastfeeding practices and the factors influencing breastfeeding behavior among 14 Karen ethnicity mothers in Northern Thailand. A structured interview was used to collect the data, a triangular method to determine the data's validity, and a content analysis method to examine the data revealed seven themes and 14 subthemes. This study identified three key factors for successful breastfeeding: self-motivation, social support, and effective problem management, which included overcoming the family's anti-breastfeeding beliefs. Conversely, unsuccessful breastfeeding stemmed from four issues: inadequate maternal knowledge and misconceptions, family beliefs and culture, maternal health problems, and economic constraints. Therefore, the success of breastfeeding was heavily influenced by both personal and environmental factors. As a result, every Karen ethnicity mothers should be encouraged to recognize the importance of breastfeeding and to exclusively breastfeed for at least six months, especially those living in remote rural areas and have a different way of life than the natives.

Keywords: exclusive breastfeeding, Karen ethnicity, remote rural area, Thailand

Introduction

Exclusive breastfeeding (EBF), providing only breastmilk to infants for the first six months, contributes significantly to infant health, nutrition, cognitive development, and mortality reduction.[1,2] The World Health Organization recommends initiating breastfeeding within an hour of birth and continuing EBF for six months, supplemented by age-appropriate foods beyond that.[3,4] Optimal breastfeeding has the potential to reduce infant deaths and public health costs significantly.[5] EBF rates are monitored globally, with the World Health Assembly aiming for a 50% rate by 2025.[6] Thailand, however, lags behind in EBF practices, ranking lowest in the Asia/Pacific region with only 34.0% initiating breastfeeding within the first hour and a mere 14.0% practicing EBF for six months in 2019.[7,8] This disparity underscores the need for resources and strategies to boost EBF in Thailand to meet global targets and improve infant health outcomes.[1]

Omkoi District in Chiang Mai Province, Thailand, home to the Karen ethnic group, is a remote, mountainous region. The Na Kian Subdistrict has a particularly low breastfeeding rate of 13.17% in the first six months, significantly below the provincial average of 44.06%.[9,10] Up to 95% of lactating mothers in this area have reported using alternatives to breast milk from birth. In 2020, three cases of acute respiratory failure were reported in infants under 6 months, all of whom were fed solid foods before this age.[11] The Thai Ministry of Public Health has tried various strategies, such as training health workers, promoting the Baby-Friendly Hospital Initiative, deploying mobile clinics, community outreach, and local support groups. However, continuous support is needed to improve breastfeeding rates.

No qualitative studies on breastfeeding behavior have been conducted among Karen ethnic hill communities in Northern Thailand. To fill this study lacuna, knowledge, attitudes, and impact of social support on the breastfeeding behavior of Karen ethnicity mothers (KEMs) in Na Kian Subdistrict, Omkoi District, Chiang Mai Province were investigated. The findings can be used as a guideline to encourage KEMs to breastfeed their babies and as a

Correspondence: Jukkrit Wungrath, Faculty of Public Health, Chiang Mai University, Chiang Mai, Thailand, E-mail: jukkrit.w@cmu.ac.th, Phone: +66 81-595-9638*

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model to encourage breastfeeding practices in other remote areas to promote the health of both mothers and babies. Results may guide tailored interventions to promote breastfeeding and enhance global child nutrition efforts using culturally sensitive approaches to achieve the United Nations' Sustainable Development Goals and benefit communities worldwide facing similar challenges.

Method

An ethnographic qualitative study was conducted from September 2021 to May 2022 on the Karen ethnic community living in the remote rural area of Na Kian Subdistrict, Omkoi District, Chiang Mai Province, Northern Thailand. Due to the outbreak of COVID-19 at that time, preventive measures were implemented to ensure safety during data collection. These measures included adopting remote methods when possible, maintaining social distancing, wearing face masks, sanitizing shared surfaces, screening participants for symptoms, limiting the number of participants, choosing outdoor venues for necessary in-person meetings, and securing informed consent.

Purposive methods were used to recruit an information-rich sample, with selection criteria specifying that participants must be KEMs aged between 18 and 40 years and having at least one child who was either breastfeeding at the time of the study or had been breastfed within the preceding five years. KEMs who were ill or pregnant were excluded from the study. A total of 14 KEMs were recruited from primary health care (PHC) in the study area. The interviews ranged from 45 minutes to 1.5 hours and were conducted at the participants' houses. The semi-structured interviews were conducted in the Lanna language, the local language in Northern Thailand, using a translator to communicate with the participants.

A semi-structured guide utilized to facilitate the interview sessions was independently developed and assessed for quality by three subject matter experts, achieving an Item-Objective-Congruence (IOC) value of greater than 0.5 for all items. The interview guide was also pilot tested by 10 individuals with characteristics similar to the sample group before application in this study. The key questions covered the participants' beliefs, culture, and social support affecting the adoption of EBF, the acceptability of EBF, and their experiences with practicing EBF until their infants reached six months of age. The discussions were not limited to the items in the interview guide, and each participant was allowed to express their opinions freely. Audio recorders were used to record the interviews.

The process was repeated for subsequent interviews. Similar coding and interview themes were collected, and the differences were recorded. Interviews with new participants continued until data saturation was achieved, and no new themes were identified. To ensure validity, the interview transcripts and emergent themes were shown to some of the participants for comments and confirmation. The transcripts and themes were accepted by all the participants.[12,13]

The interviews were transcribed in the Lanna language before translation into Thai with the support of the translator. All data were analyzed manually using thematic content analysis. Each transcript was coded by reading it several times and attaching words or phrases to form a code to describe each statement or new issue raised by each participant. Following this initial coding, each transcript was compared against other transcripts noting patterns of similarities and differences. The final codes were formed by merging or dividing the initial codes and renaming them, if necessary. Subthemes were formed by grouping related codes with similarly related subthemes to form major themes. The analysis was a continuous process until the final codes, themes, and subthemes fully captured the participants' accounts. Therefore, the themes and subthemes were not predetermined

Table 1. Participants' Sociodemographic Information

Variable	Category	Exclusive Breastfeeding Group	
		Complete	Not Complete
Number of participant		7	7
Average age (years)		24.7	25.2
Education level	Primary school	2	1
	Secondary school	4	5
	No education	1	1
Average household's monthly income (Bath)	<5,000	7	7
Occupation	Housewife	2	1
	Farmer	5	6
Number of children	1	3	1
	2	3	4
	3	1	2

but were derived inductively during the data analysis.[13-17]

The interviews and subsequent transcriptions were conducted in Thai, presenting the potential for inaccuracies in conveying intended meanings. To mitigate such risk, scrutinized translations and edited renditions of the quotes were cross verified and rechecked against the original transcripts to ensure semantic consistency. The methodology and contextual background were delineated to facilitate the reader's evaluation of their applicability. A meticulous audit trail was established through comprehensive memos and extensive field notes, with data collection pursued until data saturation, as per established study protocols. Triangulation of data was accomplished by integrating interviews from various individuals situated in diverse locales and supplemented using field notes and memos.

Results

The results were presented in two sections. The first section encompassed data from KEMs who followed EBF for an initial period of six months and was categorized into three themes. The second section included data from the group that could not maintain EBF, which was categorized into four themes.

Group 1: KEMs who completed EBF for the first six months

Three significant concerns were: 1) self-motivation; 2) social support; and 3) management of EBF problems during the first six months of EBF.

1) Self-motivation

The motivation for breastfeeding stems from two main sources: seeing the benefits of breastfeeding and the KEM's own breastfeeding experiences.

a. Seeing the Benefits of Breastfeeding

EBF was recognized as beneficial and valuable by the participants. They were aware of the risks or negative effects of feeding children foods other than breast milk before aged six months, as detailed below.

"I breastfed my baby until he was almost seven months old without giving him any other food because I wanted him to benefit from the nutrition and benefits of breast milk. I also breastfed my last child until he was six months old." (KEM-1)

"From the moment I found out I was pregnant. I decided that I would breastfeed my baby for six months before introducing other foods. My next-door neighbor has been feeding her baby other foods since she was one month old, and her baby became ill. The doctor diagnosed an intestinal problem. So, I don't want my child to be like that." (KEM-3)

"I could see the advantages of breastfeeding my baby. He excretes easily. His stomach is not constricted, with only occasional crying. My son is in good health and does not require frequent doctor visits." (KEM-9)

b. Breastfeeding Experiences of KEMs

Findings revealed that the success of EBF during the first six months was shown by the direct experiences of KEMs, including previous parenting experiences as well as observations of other breastfeeding mothers, such as the following comment.

"In the village, I saw that my friend breastfed her baby. Her children are rarely sick and always look healthy. I want my children to be the same. So, I intend to continue breastfeeding for another six months." (KEM-9)

2) Social Support

Factors contributing to successful EBF were as follows.

a. Obtaining Breastfeeding Knowledge and Information from Health Professionals

"Someone told me you can start feeding the baby when the child is two months old. The child will mature rapidly. However, I continue to believe that doctors recommend breastfeeding for at least six months before starting solids." (KEM-4)

"I learned about breastfeeding from the health workers at the PHC. The staff educated me. They had reading materials that helped me to understand breastfeeding better. They also taught me about postnatal care, how to breastfeed, how to position the baby at the breast, managing lactation, dealing with engorgement and breast pain, and instructions on how to massage the breast to facilitate milk flow." (KEM-12)

b. Breastfeeding Support from Family Members and Neighbors

"I had to deal with some problems of breastfeeding my child. My baby was unable to suck, and the milk did not flow. My breasts became engorged, which made me very stressed and worried. My baby cried and was deprived of milk. So, I spoke with the PHC staff, who encouraged me and told me to relax. They taught me the proper techniques and allowed me to practice until I felt more confident." (KEM-8)

"I considered stopping breastfeeding several times due to a lack of milk and thought of feeding my baby other foods at four months like other mothers. However, I did not do that because my neighbors and relatives encouraged and advised me to increase my milk supply. My child is nine months old today and still has enough milk to eat, along with rice and bananas." (KEM-9)

"The early stages of childbirth were extremely stressful. I had to combine breastfeeding with household chores and cooking for family members. Fortunately, I had a mother-in-law who assisted me to fully breastfeed without concern." (KEM-4)

3) Management of EBF Problems

Many KEMs faced difficulties and obstacles while breastfeeding, but they managed to overcome them. Here are some specific comments.

a. Overcoming Breastfeeding Challenges Through Experienced Guidance

KEMs experienced difficulties while breastfeeding during the first six months but managed to overcome these problems by asking people with direct experience and knowledge about breastfeeding.

"I have no problems with milk supply because it is plentiful. My issue is that the baby will not suckle. He cries every time I breastfeed him. However, my mother, who has breastfed at least five children, taught me how to help my baby suckle more effectively." (KEM-4)

"I had a very limited supply of insufficient milk to feed my baby. I was worried and had no idea how to solve the problem. However, in my village, a local sage who is knowledgeable and experienced in breastfeeding suggested some foods and herbs to stimulate milk production, which worked extremely well." (KEM-9)

b. Dealing with Problems Arising from Family Factors, Beliefs, and Culture

Na Kian Subdistrict, Omkoi District, Chiang Mai Province, is a rural area with a majority of ethnic people following old beliefs and culture about feeding newborn babies or children under the age of six months. Members of the older generation believe that children should be fed the same way as adults and do not need to breastfeed for up to six months. Participants addressed this issue by relying on their knowledge and convincing their families of the benefits of breast milk.

"My elders insisted that I should start feeding the baby when he is two months old to grow quickly; but, I still believed the doctor who said that I should breastfeed my baby for six months before starting to eat. I tried very hard to explain this to my family members." (KEM-4)

"The elders in my community believe that newborn children must eat rice from the first day because rice contains a sacred thing. They believe that if the baby does not eat at birth, the child will have difficulty eating and chewing when they grow up; but, I don't think so. Health professionals say young children cannot chew and digest their food. Feeding them could be hazardous. Babies should be breastfed for at least six months. I have tried to explain this accurate knowledge to others." (KEM-12)

Group 2: KEMs who did not complete EBF for the first six months

These KEMs fed their babies food other than breast milk before they were six months old. Four significant findings from the study are presented below.

1) Lack of Knowledge

Some KEMs did not truly understand the benefits of breastfeeding and could not deal with the limitations or problems that arose. Many myths exist about breastfeeding, such as the belief that giving the baby something other than breast milk during the first six months of life will cause them to feel full, stop whining, sleep longer, and grow faster.

"When I had a new baby, I only fed him breast milk for the first month, but he cried frequently. I was concerned he was not getting enough nutrients, so I bought a baby supplement to mix with water and occasionally gave him rice, boiled eggs, and ripe bananas." (KEM-5)

"I'm worried about my child's intelligence. I want him to eat healthy foods. So, I let him eat whatever he wanted: rice, bananas, steamed pumpkin, and boiled eggs. I believe that breastfeeding alone is insufficient for brain development." (KEM-6)

2) Family Influence on Beliefs and Cultures

The family influence had a significant impact on EBF. KEMs who cannot exclusively breastfeed their babies for at least six months are frequently pressured to introduce other foods. The family members argue that feeding children has been a traditional ritual practiced since ancient times. Furthermore, Karen people, particularly the elderly, believe that newborn Karen children must eat rice and other foods from birth. They believe that when the children grow, they will not forget how to chew rice and food in the future.

"My family started feeding my baby from the first day after birth, putting cooked rice in my child's mouth. In some families, if there is no cooked rice, the parents will chew raw rice and put it in the mouth of the child. The elderly believe that if the child does not eat rice from the first day of birth, the child will forget to eat when growing up and have a disfigured body." (KEM-2)

"My parents believe that humans must consume rice from birth. If the baby does not consume rice, he or she will be considered a ghost child." (KEM- 7)

3) Maternal Health Issues

Some KEMs could not successfully breastfeed their

babies up to 6 months because of maternal health issues such as having underlying diseases that are not conducive to breastfeeding, poor nutrition, cracked nipples, and insufficient milk supply.

"I'm having a milk supply issue. I tried several methods to increase the amount of milk, but none of them worked, so I decided not to breastfeed my baby." (KEM-7)

"After about a month of breastfeeding, my nipples started cracking and bleeding. I was in so much pain and suffering that I decided to stop breastfeeding from then on." (KEM-10)

4) Financial Difficulties

Another factor influencing EBF for the first six months is family economic problems. The majority of KEMs come from low-income families. Agriculture provides household income once a year, but it is insufficient for subsistence. As a result, some KEMs commute to the city for work, leaving grandparents to care for their children. Instead of breast milk, babies are fed infant formula or other instant foods.

"I had to return to work in Chiang Mai with my husband three months after giving birth. If I do not work, there will be no money for family expenses. As a result, I had to leave my baby with my mother and feed him infant formula instead. The grandmother also fed my children other foods such as rice with boiled egg or mashed banana." (KEM-6)

"I had planned to breastfeed my child, but due to the high cost of living, my parents forced me to work in the capital with my husband when the child was about four months old. My husband's parents look after my children. Breastfeeding had to be discontinued, and my husband's family began feeding my baby regular foods such as steamed rice, mashed eggs, mashed boiled chicken, mashed vegetables, and mashed fruit." (KEM-11)

Discussion

In-depth interviews were conducted with key participants among KEMs who completed EBF for six months or more and the group of KEMs who were unsuccessful with EBF. Conditions for success, as well as problems and obstacles, are discussed below.

Cultural Beliefs About Breastfeeding

The Karen ethnic group in remote areas of Thailand has cultural beliefs hindering EBF, including feeding other foods from birth based on ancestral practices.[18,19] These cultural barriers included the belief that breastfeeding could sicken the baby and offend ancestral spirits.[19] However, several KEMs in this study successfully breastfeed by leveraging knowledge from health professionals to persuade their families about breastfeeding benefits. Although challenging, these mothers persisted because they believed in the health benefits for their children.[19] A study by Paparwarin, *et al.*, stated that KEMs accessing medical services received valuable information leading to positive attitudes toward breastfeeding.[20] Despite initial resistance, family members eventually understood and accepted the advantages of EBF for the health and growth of their children.[20]

Self-Motivation and Maternal Experience

Breastfeeding self-motivation is a maternal condition. KEMs must understand the benefits of EBF and the risks of feeding their babies other foods before they are six months old. Furthermore, having their direct breastfeeding experiences as a result of raising a previous child, as well as seeing others breastfeeding, was a driving force behind the intention to breastfeed successfully. Kestler-Peleg, *et al*., reported the same results, that mothers with good experiences and success with EBF with a previous child, as well as those seeing another mother's successful EBF experience, were motivated to continue breastfeeding.[21] Thomas, *et al*., suggested that seeing examples or good experiences from other breastfeeding mothers caused a re-evaluation of their abilities. Seeing other mothers successfully breastfeed gave them the confidence to succeed.[22]

Social Support

Social support is key for KEMs in Thailand to successfully practice EBF for six months. This support includes EBF knowledge and psychological backing from family, health workers, and friends.[23,24] However, family pressure can deter EBF, especially without husbands, mothers, or mothers-in-law support in the early postpartum months.[25,26] Timely assistance from health professionals and EBF skill-building opportunities can lessen maternal anxiety and enhance breastfeeding success.[27] Crucially, husbands, mothers, and grandmothers can provide vital support, drawing from their own experiences, setting positive examples, and helping with child-rearing and household tasks.[28]

This study showed that KEMs who could not continue EBF for at least six months did not receive support from society, particularly family members. They bowed down to advice from family members or relatives, who frequently pressured them to feed other foods before their baby was six months old. A study in the Northwestern Nigeria found that families strongly influenced rural breastfeeding mothers.[15] Older people in rural areas still have strong cultural beliefs about feeding their children foods other than breast milk because they believe that breastfeeding alone will cause the child to be weak, slow to grow, and have poor intelligence.[15] The elderly living

under the same roof will be very strict about giving children food other than breast milk, and KEMs cannot refuse, especially mothers with the status of daughter-in-law.[15]

Physical Problems and Obstacles

Physical challenges like low milk supply, sore and cracked nipples, and nipple inflammation are common obstacles to EBF among KEMs.[26,29] Despite these difficulties, successful KEMs persisted with EBF, knowing its benefits for their infants. They sought advice from experienced individuals like health workers, family, relatives, and neighbors.[20] Some KEMs used traditional medicines, such as herbal compresses, to manage issues like nipple inflammation.[24,30] Even when facing excruciating pain from cracked nipples, these KEMs continued breastfeeding for their babies' health.[29]

The KEMs in the unsuccessful EBF group with less frequency at first when experiencing nipple inflammation or cracked nipples. They gave their baby additional food, such as mashed bananas and rice. When the breastfeeding symptoms did not improve, they switched to using prefabricated milk powder with other foods to raise their children. Once breastfeeding ended, it was difficult to return to breastfeeding again.[12,31-33] Most KEMs who had problems and stopped breastfeeding before six months were inexperienced teenage mothers or mothers with their first child who lacked proper family support, resulting in a lack of breastfeeding skills. No one was available to provide proper advice to deal with the problem. When experiencing nipple pain, KEMs are at risk of becoming mentally weakened, especially in the early postpartum period. This condition can exacerbate the inability to manage breastfeeding and lead to cessation.[34]

Family Economic Situation

Another factor influencing EBF success is family economic problems. Most respondents came from low-income households. As a result, some KEMs have to work to support their families. The household socioeconomic survey found that Omkoi was the poorest district in Chiang Mai Province and the top ten in Thailand.[35,36] Na Kian Subdistrict is a remote area with mountainous terrain and difficult to travel. The majority of the population are ethnic people living in the mountains and on the foothill plains, with scant access to government services and utilities.

These people work in agriculture, including animal husbandry and crop cultivation, such as rice, corn, and peanuts. Their agricultural products are sold in cities or through middlemen, and the people are poor due to capitalist exploitation. Regardless of sex, both men and women in Karen culture are responsible for working to fulfill the family income. However, the women in the family have additional responsibilities as mothers of their children. Most villagers rely on an irregular primary source of income from rice sales that exceed annual household consumption, combined with a small income from selling forest products such as bamboo shoots, mushrooms, and honey. Some work in coffee plantations, longan harvesting, weaving, and satchel bag production.[37]

Another interesting finding was young people in the Na Kian Subdistrict and many areas in Omkoi District prefer to work in big cities and send money back to their families. A previous study also found that the migration of ethnic groups of working-age people to the plains in search of work occurs continuously, and this trend is increasing.[38] They seek jobs in industrial factories, restaurants, and various service places.[38] Because of poverty, many KEMs cannot successfully breastfeed their children because they have to work either in the neighborhood or migrate outside the area to support their families. Children are raised by grandparents and fed infant formula along with other food. In some cases, families are impoverished and unable to purchase infant formula for their children.

Conclusion

KEMs are divided into two groups based on EBF success. Those who successfully managed EBF identify three success factors: 1) self-motivation, such as seeing the benefits of EBF and having their own breastfeeding experiences; 2) social support, such as obtaining knowledge and information; and 3) management of EBF problems such as milk supply shortages, pain or inflamed nipples and problems concerning beliefs and culture that hinder EBF. Those who belonged to the unsuccessful EBF group have four failure factors: 1) the KEMs' lack of knowledge and understanding, as well as incorrect beliefs about EBF; 2) the influence of families who do not support EBF and Karen ethnic culture about EBF; 3) maternal health problems; and 4) financial difficulties.

Recommendation

This study underscores the crucial need for tailored interventions to promote EBF among KEMs in the Chiang Mai Province, taking into account their unique socio-cultural and economic circumstances. It highlights the importance of incorporating social support networks, including family members and community leaders, into breastfeeding education programs to influence cultural practices. Policymakers and healthcare providers must engage in culturally sensitive dialogues with these communities. The study also suggests the need for further study on the complex factors influencing breastfeeding behavior, particularly in marginalized communities, to formulate more effective and context-specific health in-

terventions.

Abbreviations

EBF: Exclusive Breastfeeding; KEM: Karen Ethnicity Mother; PHC: Primary Health Care.

Ethics Approval and Consent to Participate

Participation in this study was voluntary and provided informed written consent. Ethical approval was obtained from the Research Ethics Committee of the Faculty of Public Health, Chiang Mai University, with reference number: ET029/2564, on 16 August 2021.

Competing Interest

The authors declared that there are no significant competing financial, professional, or personal interests that might have affected the performance.

Availability of Data and Materials

Data used in this study are available from the corresponding author upon reasonable request.

Authors' Contribution

WR and JW were responsible for conceptualization and methodology. WR collected data and investigated. JW wrote the original draft. JW and AT critically reviewed the manuscript. JW supervised this study. All authors read and approved the final manuscript.

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