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Maternal health care seeking behaviour during pregnancy, delivery and postpartum among Myanmar migrant women in Thai-Myanmar border

Kaung Zayyar[1], Kittipong Sornlorm[2*]

[1]MPH, Faculty of Public Health, Khon Kaen University, Khon Kaen, Thailand

[2]Faculty of Public Health, Khon Kaen University, Khon Kaen, Thailand

*Corresponding author: Assoc. Prof. Dr. Kittipong Sornlorm, kittsorn@kku.ac.th

ABSTRACT

Background: Women in border areas often face barriers to healthcare access due to geographic, informational and cultural factors. However, limited evidence exists on how these challenges affect their health-seeking behaviour.

Objectives: This study aims to address this gap by exploring maternal health-seeking behaviour during pregnancy, delivery and postpartum among women on the Thai-Myanmar border, Tak Province, Thailand.

Methods: A cross-sectional analytical study was conducted from October 2023 to November 2024 among 362 women selected through simple random sampling. Data were collected through face-to-face interviews using a structured questionnaire. Multiple logistic regression was performed to identify factors associated with health-seeking behaviour utilization. A P-value of less than 0.05 was considered statistically significant.

Results: Among the 362 respondents, 25.1% (95% CI: 20.92-29.88) exhibited low maternal healthcare-seeking behaviour. Multivariable analysis identified several significant predictors of low health-seeking behaviour: low education level (AOR = 2.46, 95% CI: 1.34-4.52), poor knowledge of maternal health (AOR = 11.46, 95% CI: 6.16-21.30), lack of decision-making autonomy (AOR = 2.77, 95% CI: 1.48-5.16), poor social support (AOR = 2.87, 95% CI: 1.27-6.49), travel time of more than one hour to a health facility (AOR = 2.48, 95% CI: 1.08-5.66) and inability to afford medical services (AOR = 2.86, 95% CI: 1.33-6.15).

Conclusion: A substantial proportion of women demonstrated low maternal healthcare-seeking behaviour influenced by educational, informational, socioeconomic and accessibility factors. Interventions aimed at enhancing maternal health knowledge, empowering women in decision-making, strengthening family support systems, and reducing both financial and geographic barriers are critical for improving maternal health service utilization in this population.

Keywords: Maternal health care, Seeking behaviour, Thai-Myanmar border

1. Introduction

Maternal health remains a significant global concern with preventable complications such as pre-eclampsia, sepsis and postpartum haemorrhage continuing to cause maternal deaths worldwide [1]. Quality maternal care during pregnancy, childbirth and postpartum is crucial in reducing maternal and infant mortality [2]. Thailand ranks fourth in Southeast Asia for the lowest preventable maternal deaths, after Singapore, Malaysia and Brunei [3]. However, maternal mortality increased slightly from 23.10 per 100,000 live births in 2020 to 25.61 in 2022 [4].

Thailand is a major destination for migrant workers from neighbouring countries especially Myanmar. In Tak Province, bordering Kayin State, approximately 200,000 undocumented Myanmar migrants live and work under harsh conditions, earning around half the legal minimum wage [5]. Migrant women face numerous challenges that influence their healthcare-seeking behaviour including language barriers, legal insecurity, poor living conditions, limited access to services and culturally rooted practices [6, 7]. Migrant populations often experience restricted access to healthcare due to high costs, lack of legal documentation and employer control over health benefits such as health card confiscation [8, 9]. These challenges are particularly concerning for pregnant women who require continuous and skilled care.

Healthcare-seeking behaviour refers to how individuals recognize illness and take action to seek care. It is influenced by cultural beliefs, knowledge, financial capacity and perceived quality of services [6].

Studies have shown that undocumented migrants rely on informal networks and encounter difficulties such as long travel distances and border crossing issues when seeking care [10] while others face socioeconomic and cultural obstacles to quality care [11]. Despite these findings, there is limited understanding of how these barriers affect healthcare-seeking behaviours across the maternal continuum including pregnancy, childbirth and postpartum. This study addressed that gap by exploring these behaviours and identifying strategies to improve maternal health education and services for this vulnerable population.

2. Methods

2.1 Study Area

Mae Sot, along the Thai-Myanmar border, is a key economic hub for migrant workers characterized by high mobility, limited

healthcare access and socio-economic disparities.

2.2 Study Design

A cross-sectional analytical study was conducted from October 2023 to November 2024 to assess maternal health care-seeking behaviour among Myanmar migrant women.

2.3 Sample Size and Sampling

Simple random sampling with probability proportional to size was used in Mae Sot and Tha Sai Luat sub-districts. The sample size was calculated using the multiple logistic regression formula [12], yielding a required minimum of 337 participants. A 10% buffer for potential non-responses raised the target to 370. After excluding 8 cases with missing or incomplete data, 362 participants were included. Eligibility criteria were women aged 18-59 who had experienced pregnancy, delivery and postpartum in the study area, with at least one child under three. Women who were critically or mentally ill, institutionalized, or refused consent were excluded.

2.4 Data Collection

Questionnaires were adapted from prior studies, aligned with operational definitions, translated into Myanmar and back-translated to ensure accuracy. Content validity was confirmed by experts and reliability was acceptable (Cronbach's alpha: 0.692-0.846). A pretest helped refine unclear items. Data were collected through face-to-face interviews at Mae Tao Clinic and Tha Sai Luat by trained assistants.

The primary outcome, maternal health care-seeking behaviour, was assessed using 13 items covering antenatal, delivery, postpartum, newborn, and family planning care. Each appropriate response scored 1 point (range: 0-13). Total scores were categorized into low (0-10) and high (11-13) behaviour levels based on a modified Bloom's cut-off [13].

2.5 Data Analysis

Data were double-entered into Excel and analysed using STATA 18.0 (College Station, Texas 77845 USA). Categorical variables were summarized using frequencies/percentages, and continuous variables with means/SDs. Bivariate analysis used crude odds ratios (COR) and 95% Confidence Interval (CI). Variables with $P < 0.25$ and those identified from literature were included in the initial multivariable model. Final predictors were selected using backward elimination until only significant

(P < 0.05) or confounding variables remained. Adjusted odds ratios (AOR) were reported with 95% CI. Assumptions for logistic regression were tested. Linearity of logit was assessed using the Box-Tidwell test; multicollinearity was checked using VIF (<2); independence of errors was assumed due to the study design.

3. Results

3.1 Baseline characteristics of the participants

The study involved approximately 362 participants, the majority of whom were aged between 20 and 35 years (79.3%) with a mean age of 30.27 years (±7.03) and a range from 19 to 59 years. Most participants had a middle level of education (58.6%) followed by low (37.3%) and high (4.1%) educational levels. The average monthly income was 4,741 THB (±2,939.51) with over half earning between 4,000 and 10,000 THB. Regarding ethnicity, participants were nearly evenly distributed between the Burma (43.7%) and Kayin (43.1%) ethnic groups with 13.2% identifying as other ethnicities. In terms of religion, 48.1% identified as Christian and 46.4% as Buddhist. Most of the participants' husbands had attained middle level education (67.1%) and the main languages spoken were Burmese (55.3%) and Kayin (43.4%). Knowledge related to maternal health-seeking behaviour was fairly distributed with 30.1% having poor knowledge, 35.1% fair knowledge and 34.8% good knowledge with an average knowledge score of 37 (±11.56). A significant portion of participants (57.5%) held strong traditional cultural beliefs. Regarding decision-making, 66.6% of the participants reported making health-related decisions on their own. Social support was reported to be generally good with 82% receiving good support from family, 71.6% from relatives, and 73.8% from neighbours.

Health care providers were the most common source of information about maternal health (91.7%), followed by media (63.5%) and neighbours or family members (59.1%). Information from pamphlets (32%), NGOs (22.1%), and ethnic health organizations (18.2%) was less commonly reported. The most frequently accessed health facility was the Maternal and Child Health Centre (45.6%) followed by rural health centres and township hospitals. Transportation to health facilities was commonly by motorcycle (40.9%) or on foot (34%) with 87.3% of participants able to reach a health facility less than one hour. Most participants (91.4%) had

access to transportation and 65.8% could afford the transportation fees. However, a large majority (86.1%) reported being unable to afford the cost of medical services (Table 1).

Table 1: Baseline characteristics of the participants (n=362)

Characteristics	Number (n)	Percentage (%)
Age group (completed years)		
<20	6	1.6
20-35	287	79.3
>35	69	19.1
Mean ± SD	30.27(±7.03)	
Median (Min: Max)	29 (19:59)	
Education		
Illiterate/Primary education	135	37.3
Middle/High school education	212	58.6
College/University/Postgraduate	15	4.1
Monthly income		
< 4,000 THB	155	42.8
4,000 – 10,000 THB	190	52.5
> 10,000 THB	17	4.7
Mean ± SD	4741.16(±2939.51)	
Median (Min: Max)	4,000 (600:20,000)	
Ethnicity		
Kayin	156	43.1
Burma	158	43.7
Others	48	13.2
Religion		
Buddhism	168	46.4
Christianity	174	48.1
Others	20	5.5
Husband's education		
Illiterate/Primary education	107	29.6
Middle/High school education	243	67.1
College/University/Postgraduate	12	3.3
Main language		
Kayin	157	43.4
Burmese	200	55.2
Others	5	1.4
Knowledge on maternal health seeking behaviour		
Poor knowledge	109	30.1
Fair knowledge	127	35.1
Good knowledge	126	34.8
Mean ± SD	37 (±11.56)	
Median (Min: Max)	41 (8:55)	
Traditional belief		
Weak cultural belief	154	42.5
Strong cultural belief	208	57.5
Mean ± SD	4.91 (1.80)	
Median (Min: Max)	5 (0:7)	
Decision maker		
Self	241	66.6
Others	121	33.4
Social support from family		

Characteristics	Number (n)	Percentage (%)
Good	297	82
Poor	65	18
Social support from relatives		
Good	259	71.6
Poor	103	28.4
Social support from neighbours		
Good	267	73.8
Poor	95	26.2
Source of information from health care provider		
Yes	332	91.71
No	30	8.29
Source of information from neighbours/family		
Yes	214	59.12
No	148	40.88
Source of information from NGO		
Yes	80	22.10
No	282	77.90
Source of information from EHO		
Yes	66	18.23
No	296	81.77
Source of information from Media		
Yes	230	63.54
No	132	36.46
Source of information from Pamphlets		
Yes	116	32.04
No	246	67.96
Facilities		
Maternal and child health centre	175	45.6
Rural health centre	62	16.3
Township hospital	61	16.0
Sub-centre	33	8.9
Station hospital	14	3.9
Private General prediction	9	2.1
Licensed traditional clinic	8	2.2
Type of vehicle		
Motorcycle	153	40.9
On foot	127	34.0
Tractor/ cars	74	20.4
Bicycle	8	2.2
Others (Boat/bus)	9	2.5
Time to health facilities		
≤ 1 hour	316	87.3
> 1 hour	46	12.7
Transportation access		
Yes	331	91.4
No	31	8.6
Afford transportation fee		
Yes	238	65.8
No	124	34.2
Afford medical service		
No	311	86.1
Yes	51	13.9

3.2 Bivariate analysis of factor associated with low maternal health care-seeking behaviour among Myanmar migrant women in Thai-Myanmar border

The prevalence of maternal health care-seeking behaviour during pregnancy among the 362 respondents revealed that 25.1% were categorized as having low maternal health care-seeking behaviour (95% CI: 20.92%-29.88%). In the bivariate analysis of factors associated with low maternal health care-seeking behaviour, several variables showed statistically significant associations. Women with low education had significantly higher odds (COR=3.65; 95% CI: 2.29-5.83) of low health-seeking behaviour compared to those with middle or high education. Similarly, women earning more than 4,000 THB per month had higher odds (COR=1.88; 95% CI: 1.18-3.00) than those earning less. Ethnicity also played a role, with those identifying as Burmese (COR=2.75; 95% CI: 1.66-4.55) and other ethnicities (COR=2.02; 95% CI: 0.98-4.13) more likely to have low health-seeking behaviour compared to Kayin women. Religion was significant, with Buddhists (COR=2.83; 95% CI: 1.74-4.62) and those with other religions (COR=5.22; 95% CI: 2.00-13.63) more likely to report low health-seeking behaviour than Christians.

Additionally, women whose husbands had low education had higher odds (COR=2.48; 95% CI: 1.54-3.99). Those whose main language was not Kayin (COR=2.71; 95% CI: 1.67-4.40) also showed significantly higher odds. Poor knowledge on maternal health was strongly associated (COR=15.48; 95% CI: 8.86-27.04). Weak traditional beliefs were linked with higher odds (COR=2.07; 95% CI: 1.32-3.26) as was having someone else as the decision-maker (COR=3.66; 95% CI: 2.29-5.87). Poor social support from family (COR=5.09; 95% CI: 2.89-8.97), relatives (COR=3.25; 95% CI: 2.01-5.27) and neighbours (COR=2.42; 95% CI: 1.48-3.95) also significantly increased the likelihood of low health-seeking behaviour. Sources of information were crucial: women who did not receive information from healthcare providers (COR=5.30; 95% CI: 2.39-11.75), NGOs (COR=1.85; 95% CI: 1.03-3.34), EHOs (COR=2.02; 95% CI: 1.05-3.88), media (COR=1.88; 95% CI: 1.19-2.98) and pamphlets (COR=1.83; 95% CI: 1.10-3.04) were significantly more likely to have low health-seeking behaviour. Regarding facility types, those using higher-level facilities like township hospitals and private

general practices had higher odds (COR=2.47; 95% CI: 1.47-4.15). Mode of transport was important; those using cars, motorcycles or carts had higher odds (COR=3.11; 95% CI: 1.83-5.27) compared to those on foot or bicycle. Travel time over one hour (COR=2.11; 95% CI: 1.12-3.96), lack of transportation access (COR=3.54; 95% CI: 1.67-7.52), inability to afford transportation (COR=1.66; 95% CI: 1.05-2.63) and inability to afford medical services (COR=2.52; 95% CI: 1.38-4.60) were also significantly associated with low maternal health-seeking behaviour (Table 2).

Table 2: Bivariate analysis of factors associated with low maternal health care-seeking behaviour among Myanmar migrant women in Thai-Myanmar border (n=362)

Factors	Number of samples	Low health seeking behaviour		Crude OR	95% CI	P-value
		n	%			
Overall	**362**	**91**	**25.1**	**-**	20.92-29.88	
Age group						0.964
> 35 years	69	21	30.4	1		
≤ 35 years	293	90	30.7	1.01	0.57-1.79	
Education						<0.001
Middle and high-level	227	46	20.3	1		
Low level	135	65	48.2	3.65	2.29-5.83	
Monthly income						0.007
≤ 4,000 THB	155	36	23.2	1		
>4,000 THB	207	75	36.2	1.88	1.18-3.00	
Ethnicity						<0.001
Kayin	156	31	19.9	1		
Burma	158	64	40.5	2.75	1.66-4.55	
Others	48	16	33.3	2.02	0.98-4.13	
Religion						<0.001
Christianity	174	33	18.9	1		
Buddhism	168	67	39.9	2.83	1.74-4.62	
Others	20	11	55.0	5.22	2.00-13.63	
Husband education						0.001
Middle and High level	255	63	24.7	1		
Low level	107	48	44.9	2.48	1.54-3.99	
Main Language						<0.001
Kayin	157	31	19.8	1		
Burmese/Others	205	80	39.0	2.71	1.67-4.40	
Knowledge						<0.001
Moderate and Good	221	22	9.9	1		
Poor	141	89	63.1	15.48	8.86-27.04	
Traditional beliefs						0.002
Strong	208	50	24.0	1		
Weak	154	61	39.6	2.07	1.32-3.26	
Decision maker						<0.001
Self	241	51	21.2	1		
Others	121	60	49.6	3.66	2.29-5.87	
Social support from Family						<0.001
Good	297	71	23.9	1		
Poor	65	40	61.5	5.09	2.89-8.97	
Social support from relative						<0.001

Factors	Number of samples	Low health seeking behaviour		Crude OR	95% CI	P-value
		n	%			
Good	259	60	23.2	1		
Poor	103	51	49.5	3.25	2.01-5.27	
Social support from neighbours						<0.001
Good	267	68	25.5	1		
Poor	95	43	45.3	2.42	1.48-3.95	
Source of information from health care provider						
Yes	332	91	27.4	1		<0.001
No	30	20	66.7	5.30	2.39-11.75	
Source of information from neighbours/family						0.456
Yes	214	63	30.0	1		
No	148	50	32.0	1.21	0.75-1.87	
Source of information from NGO						0.041
Yes	80	17	21.3	1		
No	282	96	33.8	1.85	1.03-3.34	
Source of information from EHO						0.027
Yes	66	13	19.7	1		
No	296	98	33.1	2.02	1.05-3.88	
Source of information from Media						0.007
Yes	230	59	25.7	1		
No	132	54	40.3	1.88	1.19-2.98	
Source of information from Pamphlets						0.017
Yes	116	25	21.7	1		
No	246	88	35.3	1.83	1.10-3.04	
Facilities						0.001
Sub-centre/RHC/ MCH/LTC	264	67	25.4	1		
Station & Township hospital/Private GP	81	37	45.7	2.47	1.47-4.15	
Type of vehicle						<0.001
On foot/ bicycle	131	22	16.8	1		
Car/motorcycle/cart	231	89	38.5	3.11	1.83-5.27	
Time to health facilities						0.020
≤ 1 hour	316	90	28.5	1		
> 1 hour	46	21	45.7	2.11	1.12-3.96	
Transportation access						0.001
Yes	331	93	28.1	1		
No	31	18	58.1	3.54	1.67-7.52	
Afford transportation fee						0.032
Yes	238	64	26.9	1		
No	124	47	37.9	1.66	1.05-2.63	
Afford medical service						0.003
No	311	86	27.7	1		
Yes	51	25	49.0	2.52	1.38-4.60	

3.3 Multivariable analysis of factors associated with low maternal health care seeking behaviour among Myanmar migrant women in Thai-Myanmar border

The multivariable analysis revealed several significant factors associated with low health-seeking behaviour among participants. Individuals with a low level of education were more likely to exhibit poor health-seeking behaviour compared to those with middle or high education levels (AOR = 2.46, 95% CI: 1.34-4.52). Similarly, participants with poor knowledge demonstrated a markedly higher likelihood of low health-seeking behaviour than those with moderate or good knowledge (AOR = 11.46, 95% CI: 6.16-21.30). Decision-making autonomy also played a crucial role; those who were not the primary decision-makers regarding their healthcare were significantly more likely to have low health-seeking behaviour (AOR = 2.77, 95% CI: 1.48-5.16). Furthermore, participants reporting poor social support from relatives were at increased risk (AOR = 2.87, 95% CI: 1.27-6.49) compared to those with good support. Access-related factors were also significant. Those who took more than one hour to reach a health facility had higher odds of low health-seeking behaviour (AOR = 2.48, 95% CI: 1.08-5.66) than those who could access care within an hour. Finally, participants who could not afford medical services were also more likely to demonstrate low health-seeking behaviour (AOR = 2.86, 95% CI: 1.33-6.15) (Table 3).

Table 3: Multivariable analysis of factors associated with low maternal health seeking behaviour among Myanmar migrant women in Thai-Myanmar border using multiple logistic regression (n=362)

Characteristics	Number of samples	Low health seeking behaviour		COR	AOR	95%CI	P-value
		n	%				
Education							0.004
Middle and High	227	46	20.3	1	1		
Low level	135	65	48.2	3.65	2.46	1.34-4.52	
Knowledge							<0.001
Moderate and Good	221	22	9.9	1	1		
Poor	141	89	63.1	15.48	11.46	6.16-21.30	
Decision							0.001
Self	241	51	21.2	1	1		
Others	121	60	49.6	2.13	2.77	1.48-5.16	
Social support from relative							0.011
Good	259	60	23.2	1	1		
Poor	103	51	49.5	3.25	2.87	1.27-6.49	
Time to health facilities							0.031

Characteristics	Number of samples	Low health seeking behaviour		COR	AOR	95%CI	P-value
		n	%				
≤ 1 hour	316	90	28.5	1	1		
> 1 hour	46	21	45.7	2.11	2.48	1.08-5.66	
Afford medical service							0.007
No	311	86	27.7	1	1		
Yes	51	25	49.0	2.52	2.86	1.33-6.15	

4. Discussion

The prevalence of low maternal health care-seeking behaviour in this study was 25.1% (95% CI: 20.92-29.88), indicating that approximately one in four women did not actively utilize essential maternal health services during pregnancy. This finding highlighted a significant gap in health care utilization that may adversely affect maternal and neonatal health outcomes. Comparable studies from other low-resource settings have reported even higher levels of poor maternal healthcare-seeking behaviour. For instance, a study in Ethiopia reported a prevalence of 48.8% low maternal healthcare-seeking behaviour [14]. Another Ethiopian study found that while 74.3% of women sought antenatal care (ANC), only 28.7% utilized institutional delivery and 22.6% accessed postnatal care (PNC) services [15]. In Afghanistan, the proportions of women seeking institutional delivery, four or more ANC visits and at least four PNC visits were 56%, 22% and 2%, respectively [16]. Moreover, a study conducted in the Democratic Republic of the Congo found that 90.3% of women did not receive comprehensive maternal health services including antenatal care, institutional delivery and postnatal care [17]. These findings underscored the persistent global disparities in maternal healthcare access and utilization particularly in conflict-affected or resource-limited settings.

Individuals with a low level of education were more likely to exhibit poor health-seeking behaviour compared to those with middle or high education levels (AOR = 2.46, 95% CI: 1.34-4.52). This association reflected the critical role of education in shaping maternal health behaviours. Education enhances women's awareness of the importance of timely and appropriate maternal healthcare, increases their ability to understand health information and empowers them to make informed decisions regarding their health and that of their unborn child. Several studies have similarly demonstrated

that women with higher educational attainment are more likely to attend antenatal care, deliver at health facilities and seek postnatal services as they are better equipped to navigate the healthcare system and recognize danger signs during pregnancy and childbirth [18, 19]. Women with low education were nearly three times more likely to have poor care-seeking behaviour, echoing findings from Bangladesh and Nigeria where higher education correlated with greater service utilization and autonomy in health decisions [20-22].

Participants with poor knowledge demonstrated a markedly higher likelihood of low health-seeking behaviour than those with moderate or good knowledge (AOR = 11.46, 95% CI: 6.16-21.30). This finding underscored the critical role of health knowledge in shaping maternal care-seeking practices. Inadequate understanding of the importance of antenatal care, danger signs during pregnancy and available services may contribute to delayed or missed utilization of essential maternal health services. Previous studies from countries such as Ethiopia, Nepal and Pakistan have also reported that women with low maternal health knowledge were significantly less likely to attend antenatal visits or seek skilled delivery care [23-25]. Strengthening health education efforts through targeted community-based interventions, mass media and counselling by health professionals could therefore substantially enhance maternal health-seeking behaviour and improve maternal and neonatal outcomes.

Decision-making autonomy also played a crucial role; those who were not the primary decision-makers regarding their health care were significantly more likely to have low health-seeking behaviour (AOR = 2.77, 95% CI: 1.48-5.16). This finding aligned with existing literature emphasizing the impact of women's autonomy on healthcare utilization. When women are not empowered to make decisions regarding their health, they may delay or entirely forgo seeking timely and appropriate maternal health services. A study from Bangladesh reported that adolescent girls with limited decision-making power and knowledge about maternal health care were strongly influenced by interpersonal and familial factors especially the opinions of husbands and mothers-in-law which significantly affected their utilization of skilled maternal health services [21]. Similarly, a study conducted in Ethiopia demonstrated that women's participation in household decision-making was positively

associated with increased use of family planning services (AOR = 1.37) and antenatal care (AOR = 1.36) reinforcing the link between autonomy and proactive health-seeking behaviour [26].

Furthermore, participants reporting poor social support from relatives were at increased risk of low health-seeking behaviour (AOR = 2.87, 95% CI: 1.27-6.49) compared to those with good support. The presence of emotional, informational and practical support from family particularly husbands and close relatives can significantly influence a woman's decision to seek maternal healthcare. In the absence of such support, women may face emotional stress, logistical challenges or financial constraints that prevent them from accessing timely and appropriate care. This finding was consistent with studies from Pakistan and Ghana which revealed that family involvement especially encouragement or permission from male partners or elder family members strongly influences decisions regarding facility-based deliveries and antenatal care use [27, 28]. Women who lacked support were more likely to underutilize maternal services due to limited mobility, lack of transport assistance and cultural expectations around male approval for healthcare decisions. Additionally, this association aligned with research from Bangladesh where women with limited autonomy due to patriarchal family structures were less likely to access skilled maternal care services [21]. These studies collectively underscored the importance of strengthening family and community support systems as well as promoting male involvement and shared decision-making to improve maternal health-seeking behaviour.

Those who took more than one hour to reach a health facility had significantly higher odds of low health-seeking behaviour (AOR = 2.48, 95% CI: 1.08-5.66) compared to those who could access care within an hour. Geographic accessibility is a well-documented barrier in maternal health service utilization. Long travel distances not only delay timely care but also increase the physical, financial and emotional burden on women particularly in rural or under-resourced areas. Studies from Bangladesh have shown that increased distance to health facilities is associated with decreased antenatal care attendance and lower rates of institutional deliveries [29]. Poor infrastructure, lack of transportation and unsafe travel routes further deter women

from seeking timely care contributing to adverse maternal and neonatal outcomes.

Finally, participants who could not afford medical services were significantly more likely to exhibit low health-seeking behaviour (AOR = 2.86, 95% CI: 1.33-6.15). Financial barriers such as consultation fees, diagnostic costs, medication expenses and transportation can prevent women from accessing essential maternal services, particularly in low-income settings. A systematic review on the cost of utilizing maternal health services in low- and middle-income countries revealed that women often face a significant financial burden, including unofficial payments, despite the existence of formal fee exemptions. This financial strain can act as a barrier to accessing essential maternal care [30]. Women from low-income households often delay or avoid care due to fear of incurring debts or diverting household resources [31]. These financial constraints highlighted the need for targeted health financing strategies such as free maternal care policies, conditional cash transfers or community-based insurance schemes to improve maternal healthcare utilization.

A key strength of this study lies in its comprehensive examination of multiple determinants including educational, socio-cultural, economic and accessibility factors affecting maternal healthcare-seeking behaviour. The use of multivariable analysis allowed for the control of potential confounders and strengthening the validity of the associations found. Furthermore, the study employed a structured and pre-tested questionnaire and data were collected through face-to-face interviews ensuring clarity of responses and minimizing misinterpretation. However, this study has several limitations. First, the cross-sectional design prevents the establishment of causal relationships between the associated factors and maternal healthcare-seeking behaviour. Second, the reliance on self-reported data may be subject to recall and social desirability biases especially in reporting sensitive issues such as decision-making autonomy or financial limitations. Third, the study was conducted in a specific geographic region which may limit the generalizability of the findings to other populations with differing socio-cultural and healthcare contexts. Lastly, some potential influencing factors such as cultural beliefs or perceptions about the quality of care were not explored in depth which may have provided additional insights.

5. Conclusion

These findings highlighted that maternal healthcare-seeking behaviour remains suboptimal with one in four women exhibiting low engagement with essential maternal health services. Educational attainment, maternal health knowledge, decision-making autonomy, social support, accessibility and affordability were all significantly associated with healthcare-seeking behaviour. Targeted interventions focusing on improving women's education and knowledge, promoting autonomy, enhancing family and community support, improving geographic access to care and reducing financial barriers are essential to improve maternal health service utilization.

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Author contributions

KZ: Conceptualization, data curation, formal analysis, methodology, writing original draft, writing review and editing. KS: Conceptualization, methodology, super-vision, writing original draft, writing review and editing.

Declaration

Ethics approval and consent to participate

This study was approved by "the Centre for Ethics in Human Research, Khon Kaen University, Thailand" with the reference number HE672166 on 24 September 2024.

Competing interests

We declared that we have no competing interests

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