International Journal of Arts Humanities and Social Sciences Studies
Volume 7 Issue 2 ǁ February 2022
ISSN: 2582-1601
www.ijahss.com

Challenges In Cross-Border Health Services In Thailand's Government Hospitals

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Abstract : *This cross-sectional descriptive study aimed to investigate the existing state of cross-border health services in government hospitals in Ubon Ratchathani, Surin, and Sisaket in Thailand. Focus groups and questionnaires were conducted with representatives or persons in charge of cross-border health services at the hospitals, one person per facility, for a total of nine participants. A convenience sampling questionnaire on satisfaction with hospital health services was also completed by 50 patients from Lao PDR or Cambodia who received healthcare services at the hospitals. Statistics, frequency, percentage, and content analysis were used to analyze the data. The results showed that there were shortages of specialists, English- and Khmer-speaking personnel, medical equipment, and a management structure designed exclusively for overseas patients. The research also found that the patients at the hospitals did not pay their medical bills. Furthermore, the patients' overall satisfaction was high with a mean score of 4.04 (S.D. = 0.68). There was a high level of satisfaction in every aspect. The average score for the environment was 4.13 (S.D. = 0.72), compared with 4.07 (S.D. = 0.69) for treatment, and 3.95 (S.D. = 0.67) for services. However, the patients were less satisfied with waiting times, treatment duration, and speedy referral method with the mean scores of 3.58 (S.D. = 0.97), 3.64 (S.D. = 0.94), and 3.66 (S.D. = 0.87), respectively. As a result, to enhance their cross-border health service system, the hospitals should provide an appropriate number of workers who can communicate in both English and Khmer, offer interpreter training for hospital personnel, ensure the availability of appropriate medical equipment and tools, streamline the service system, and reduce the risks of medical debts owed by the recipients of cross-border health services.*

Keywords: *government hospitals, cross-border, health services, medical hubs*

I. INTRODUCTION

Ubon Ratchathani, Surin, and Sisaket are provinces in Thailand that border neighboring nations: the Kingdom of Cambodia and the Lao People's Democratic Republic (Lao PDR). Ubon Ratchathani has a border checkpoint known as Chong Mek in Sirindhorn District. Surin has a permanent border crossing point known as Chong Chom – O Smach or the Chong Chom border trading market. Sisaket has a Cambodia-Thai border checkpoint called Chong Sa-ngam[1]. The three provinces have consequently seen increased cross-border trade, transportation, tourism, and access to healthcare. There are two types of hospitals in Ubon Ratchathani, Surin, and Sisaket: large hospitals (central hospitals or general hospitals) and small hospitals (community hospitals)[2]. Services provided at these hospitals include general medical examination, specialized therapy, autopsy and treatment, health promotion, disease prevention, and other rehabilitation services. As a result, numerous foreign patients from Cambodia and Lao PDR have crossed the border for treatment and services at these hospitals. In 2019, there were 1,877, 3,094, 2,937, 2,182, and 516 foreign patients who received healthcare services at Surin Hospital, Khemmarat Hospital, Kap Choeng Hospital, Sirindhorn Hospital, and Kantharalak Hospital, respectively, and in 2020, there were 9,143, 1,855, 1,495, 1,434 and 560[3].

As people from neighboring countries have sought treatment and access to medical care, especially in Ubon Ratchathani, Surin, and Sisaket, the hospitals in these provinces have developed services to assist the recipients of international healthcare services. The Thai government has made it a policy to make Thailand an international health center, and it is preparing to push for it[2]. Many countries throughout the world respect Thai medicine and service. Visas for foreigners are being extended by relevant agencies to increase the visibility of health tourism activities in accordance with the Medical Hub policy that aims to attract additional revenue into the country[4].

Since 2004, the Ministry of Public Health has been charged with overseeing the implementation of the policy to transform Thailand into an international health center (Medical Hub Policy). The Wellness Hub, the Medical Service Hub, the Academic Hub, and the Product Hub are the four core products in the ten-year plan (2016 – 2025) [2]. People from both Lao PDR and Cambodia have crossed the borders to receive medical care in Ubon Ratchathani, Surin, and Sisaket. As a result, plans have been put in place to assist these people. The research team studied the problems and obstacles related to cross-border health services in government hospitals in Ubon Ratchathani, Surin, and Sisaket to obtain basic information for the development of an efficient cross-border health service center in Thailand.

II. METHODS

The study collected data from nine target hospitals: central hospitals/general hospitals and community hospitals in Ubon Ratchathani, Surin, and Sisaket with a total of nine hospitals, as shown in Table 1.

Table 1 List of target hospitals

ID.	Hospital name	Type of hospital	Number of beds	Location (Province)
1	Detudom Royal Crown Prince Hospital	General	315	Ubon Ratchathani
2	Sirindhorn Hospital	Community	30	Ubon Ratchathani
3	Khemmarat Hospital	Community	60	Ubon Ratchathani
4	Namyuen Hospital	Community	60	Ubon Ratchathani
5	Surin Hospital	Center	914	Surin
6	Kap choeng Hospital	Community	60	Surin
7	Sisaket Hospital	Center	788	Sisaket
8	Kantharalak Hospital	Community	200	Sisaket
9	Phusing Hospital	Community	30	Sisaket

The researcher specifically chose a central hospital/general hospital that provides health services to persons from Lao PDR and Cambodia and community hospitals located near the Thailand-Lao and Thailand-Cambodia borders. The data were collected between June 2021 and September 2021.

2.1 Sample/Data Collection

1) The data on the challenges and impediments in cross-border health services in the hospitals were gathered through focus groups and surveys with 9 participants in charge of cross-border health services, one from each hospital.

2) The data were collected through a convenience sampling questionnaire from the persons who had received healthcare services at the hospital. Fifty Laotians and Cambodians were asked to provide information about their satisfaction with hospital services. The assistant researchers, who were the data collectors, had been trained to comprehend the surveys, and they could communicate in Lao or Khmer.

2.2 Tools and Equipment

1) Focus groups and hospital data surveys were used to collect data on the challenges and roadblocks in the operation of cross-border health services at the hospitals, to address the problems, and to suggest solutions to them.

2) A questionnaire on satisfaction with hospital services was used. It consisted of 9 closed-ended questions regarding patient gender, age, monthly income, congenital condition, and so on. The questionnaire comprised 24 items pertaining to factors influencing patient satisfaction: 8 on treatment, 9 on service quality, and 7 on the environment. Best's concept of criteria-based categorization was used to interpret and assess the score outcomes [5]. There are three scales of satisfaction: good, moderate, and low.

2.3 Tool's Quality

Three experts checked the content validity of the focus group form, the hospital data survey, and the satisfaction questionnaire. To complete the satisfaction survey for cross-border health services, the researcher calculated the Index Of Objective Congruence (IOC), which ranged from 0.67 to 1.00 for each questionnaire. It was tested with 15 foreigners at Ubon Ratchathani University who had visited Thai hospitals to determine the questionnaire's reliability. Cronbach's alpha coefficient was calculated. The reliability of the treatment items, the service quality, and the environment were 0.782, 0.847, and 0.857, respectively. The minimum acceptable questionnaire confidence value was 0.70[6].

2.4 Ethical considerations

The study was approved by the Ubon Ratchathani University Human Research Ethics Committee with the code UBU-REC-08/2564.

III. RESULTS

3.1 Problems in Cross-Border Health Services

All the target hospitals were certified and reaccredited by the Hospital Accreditation (HA). One hundred percent of the patients intended to receive healthcare services, whereas 88.9% were accident and emergency patients. Only 55.6% of hospital personnel were able to communicate with foreign patients.

The cross-border health services provided in the target hospitals faced a number of challenges. There was a shortage of specialized doctors and personnel who could communicate in both English and Khmer. Moreover, there was not enough medical equipment in some hospitals. Also it was so frequently used that it needed to be constantly repaired. Regarding patient management, it was found that the hospitals lacked a system that was exclusively catered to foreign patients. Another significant issue was that both Laotian and Cambodian patients owed hospital bills. (Table 2)

Table 2 Problems in cross-border health services at the target hospitals (n=9)

ID	Subject	Problem and Obstacles
1	Personnel	- There were not sufficient specialists. - The physicians were frequently rotated because the hospitals were located outside the province and did not serve the community. - Scarcity of people who could communicate in Khmer. - A scarcity of English-speaking workers
2	Medical supplies	- Some tools, such as dental machines, required constant maintenance. - The referral vehicles were frequently repaired. - There were inadequate medical instruments and equipment to offer services. - There was a lack of MRI equipment. - There was a lack of a computerized X-ray machine. - There was a lack of respiratory apparatus.
3	Patient management	- There was no structure designed exclusively for overseas patients - The service was delayed due to the time it took to communicate and contact an interpreter and the limited number of hospital staff.
4	Communication	- Staff members were unable to speak in Khmer, causing service delays; they occasionally utilized English to communicate with Cambodian patients who could communicate in English. - Personnel were limited in their ability to communicate in English and Khmer.
5	Service payment	- Customers were delinquent in paying for services. The problem was found among both Cambodian and Laotian patients.

3.2 Satisfaction with admittance to central/ general hospitals and community hospitals in the target hospitals

Seventy-six percent of the sample were from Lao PDR, while 80.00% of the sample were female with a mean age of 35.5years (IQR=12 years). Of the patients, 76.0% had no underlying ailment, 38.0% paid for health services with cash/credit card, 38.0% received reimbursement from life insurance/health insurance companies, 40.0% were admitted to the hospital due to common illnesses, 40.0% received treatment for congenital/chronic illnesses, and 44.0%. had a financial means to pay for medical care. (Table 3)

Table 3 Patient characteristics, medical conditions, and financial abilities (n=50)

General Data	Frequency (person)	Percentage
Nationality		
- Lao	38	76.0
- Cambodian	12	24.0
Gender		
- Male	10	20.0
- Female	40	80.0
Age (year)		
- Median = 35.5, IQR = 12		
- Minimum = 23, Maximum = 67		
Congenital disorder		
- Yes	12	24.0
- No	38	76.0
Payment method		
- Payments received from life and health insurance companies	19	38.0
- Payment based on social security rights	4	8.0
- Payment by cash/credit card	19	38.0
- Others	8	16.0
Cause of hospitalization		
- Common illness treatment	20	40.0
- Chronic/chronic illness treatment	20	40.0
- Accidental injuries	10	20.0
Financial ability to pay for medical care		
- Able to afford	22	44.0
- Medical care is supported by the hospital	9	18.0
-Life insurance/health insurance companies	19	38.0

The results showed that the most important factors influencing the patients' decision to receive services at the target hospitals were convenient location and transportation (68.0%), reasonable medical charges (34.0%), modern equipment and tools (28.0%), and recommendations from others (22.0%). (Table 4)

Table 4 Factors affecting patient decision to use hospital services (n=50)

ID	Factors	Decision on yes
		Percentage
1	The doctor's reputation and acceptable treatment	12.0
2	Service and reputation of the hospital	10.0
3	Modern equipment and tools	28.0
4	Reasonable medical charges	34.0
5	Convenient location and transportation	68.0
6	Recommendations from others, such as family, friends, and acquaintances.	22.0
7	Others	24.0

The overall satisfaction of hospital patients was high with a mean score of 4.04 (SD = 0.68). Of the three main items, the item for which satisfaction levels were highest was the environment with a mean score of 4.13 (S.D. = 0.72), followed by treatment with a mean score of 4.07 (S.D. = 0.69), and service quality with a mean score of 3.95 (S.D. = 0.67). Regarding environment-related items, the "examination room facilities" item received the highest level of satisfaction with a mean score of 4.32 (S.D. = 0.82), followed by the "cleanliness of examination rooms" item with a mean of 4.26 (S.D. = 0.88). The items for which the levels of satisfaction were lowest were the appropriateness of waiting times with a mean score of 3.58 (S.D. = 0.97), treatment time with a mean score of 3.64 (S.D. = 0.94), and rapid treatment referral procedure with a mean score of 3.66 (S.D. = 0.87). (Table 5)

Table 5 Patient satisfaction with admittance to central/general hospitals and community hospitals (n=50)

Patient satisfaction with hospital services	Satisfaction level	
	Mean±SD	Interpretation
Treatment		
1. Alternatives to examination and treatment suggested by doctors	4.34±0.75	high
2. Quality and modern equipment and tools	4.00±0.86	high
3. Doctor's counseling, patient care, and response	3.98±0.96	high
4. Nurse's counseling, patient care, and response	4.08±0.92	high
5. Linguistic and communicative competence	4.26±0.85	high
6. Medicines or medical supplies	4.02±0.94	high
7. High-standard care	4.26±0.88	high
8. Appropriate treatment duration	3.64±0.94	Moderate
Total	4.07±0.69	high
Service quality		
1. Getting prepared for the Center/Service Coordinator's	4.06±0.89	high
2. Appropriate waiting times	3.58±0.97	Moderate
3. Courtesy of service personnel	4.02±0.92	high
4. Friendliness and helpfulness of personnel	4.00±0.81	high
5. Pre-order check-up service	3.96±0.95	high
6. The referral process was quickly completed	3.66±0.87	Moderate
7. Reasonable charge	3.94±0.91	high
8. healthcare counselling service	4.20±0.78	high
9. Equal treatments among Thai and foreign patients	4.14±0.99	high
Total	3.95±0.67	Moderate
Environment		
1. Cleanliness of examination rooms	4.26±0.88	high
2. Relaxed atmosphere at examination rooms	4.14±0.93	high
3. Examination room facilities	4.32±0.82	high
4. Cleanliness of the surroundings and the location	4.24±0.82	high
5. Enough toilets	4.06±0.94	high
6. Accommodation for service recipients	3.98±1.02	high
7. Accommodation for service recipients' visitors	3.90±1.06	high
Total	4.13±0.72	high
Overall	4.04±0.68	high

IV. DISCUSSION

This study found that Kap Choeng Hospital, Kantharalak Hospital, and Surin Hospital provide comprehensive cross-border health services for foreigners that include a special service channel, bilingual personnel, accommodation areas for visitors, clear signage, information boards and guides for foreigners, and post-treatment care. Thai medicine and health services are being provided in accordance with a policy that aims to establish Thailand as an international health center[7]. However, there are still barriers in cross-border healthcare services at the hospitals, particularly the shortages of specialist doctors and bilingual or multilingual employees who can speak both English and Khmer. While some hospitals lack medical equipment, some lack a management system dedicated to serving international patients. The most serious issue found is that the service

users from Lao PDR and Cambodia are in arrears. This is consistent with a study by Wariya Pattharapinphong and Kassara Sukpatch (2017)[8] that found a shortage of medical tourism promotion in Thailand and personnel in the medical field. In addition, it is also congruent with the study of Orathai Srithongtham and et al., (2017)[9] where it was found that border hospitals in Ubon Ratchathani have endured the financial burden of delivering services to foreign patients. This problem, which occurred not only in Ubon Ratchathani but also in Surin and Sisaket, was solved by the agreement between the patients and the hospitals whereby the patients pay hospital fees before being admitted. Nevertheless, not all problems are solved as the International Convention on the Protection of the Rights of Migrant Workers and Family Members stipulates that migrant workers and their family members have the right to any medical treatment urgently required to preserve their lives. The hospitals cannot thus refuse their treatment[10]. To improve the efficiency of cross-border health services, it is important to develop staff, tools, facilities, and locations and reduce the risks of bad debt due to unpaid healthcare bills. According to a study by Phayam Kandee and Waraporn Boonchieng (2019)[11], providing health services in primary care units to migrant workers can cover dimensions of health promotion, disease prevention, treatment, and rehabilitation, resulting in an improvement in the quality of working life and maintaining the country's balance in terms of public health, security, economy, and human rights.

The overall satisfaction of Lao PDR and Cambodian service recipients was determined to be at a high level with a mean score of 4.04 (S.D.=0.68). Their satisfaction with treatment, service quality, and the environment was high with the mean scores of 4.07 (S.D.=0.69), 3.95 (S.D.=0.67), and 4.13 (S.D.=0.72), respectively. Such high scores are possibly the results of many factors. The target hospitals offered counsel, care, and response to service recipients; the nurse recommended examination and treatment to the patients; each examination room was clearly labeled; the location could be easily found; the environment was clean; and there were enough bathrooms. As a result, the patients at the target hospitals expressed high levels of satisfaction with cross-border health services. This result is consistent with the findings of Natephetcharat Trakulboonnate (2017)[12] that showed that the overall satisfaction of service users in the outpatient department of the Princess Mother Navuti Hospital was high with a mean score of 4.40 (S.D.=0.70) while the mean scores for their satisfaction with service convenience, knowledge advice, and counseling were 4.43 (S.D.=0.55), 4.67 (S.D.=1.32), and 4.39 (S.D.=0.63), respectively. Moreover, according to Wapee Crongwiriyapap and Suchada Ratchukul (2015)[13], the level of patient satisfaction with service quality provided by private hospitals in Bangkok was high with a mean score of 4.00 (S.D=0.53). Furthermore, a study by M. M. Ali and A. Medhekar (2018)[14], found that Thai doctors are internationally competent, caring, trustworthy, honest, and straightforward when dealing with patients and have expertise in providing diagnostic results.

However, there was still an issue because healthcare recipients from Lao PDR and Cambodia were less satisfied with, for example, the appropriateness of waiting times with a mean score of 3.58 (S.D. = 0.97), treatment duration with a mean score of 3.64 (S.D. = 0.94), and timely referral procedure with a mean score of 3.66 (S.D. = 0.87). This is possibly due to the hospital staff members' low language skills, particularly in Khmer as only 55.56% of them could converse with foreign patients. As a result, waiting for an interpreter or someone who could interact with foreign healthcare recipients to come took time. Moreover, the referral system is complicated as it involves many time-consuming protocols such as coordination between initiating and receiving hospitals, paperwork, data validation, patient assessment, or obtaining patient consent[15]. This is consistent with the study of Orathai Srithongtham and Aomthip Polbupha, which found that the referral system for patients in Ubon Ratchathani Province has some constraints since personnel at the Chong Mek border control were overworked and it is not their duty and responsibility to provide emergency services[16]. This service delay could be the reason that explains the low level of satisfaction among the Laotian and Cambodian service recipients.

V. CONCLUSION

In Ubon Ratchathani, Surin, and Sisaket, Thailand, specialized doctors and staff members who could communicate in English and Khmer were in limited supply**.** Some hospitals lacked adequate medical equipment, and some lacked a management system designed particularly for foreigners**.** The main issue found was that healthcare recipients at the target hospitals were in arrears and were less satisfied with waiting times, treatment duration, and referral process**.** To develop the cross-border health service system **(**medical hub**)**, the hospitals should improve on the following areas**:** increasing the number of bilingual or multilingual staff members who can communicate in English and Khmer, training the hospital staff members as an interpreter or arranging for a volunteer interpreter from the community, developing medical tools and equipment, setting a service system for foreigners, clearing the hospital buildings and premises and making them beautiful and clean, and, most importantly, establishing a plan to reduce the risks of debts owed by foreign patients. Further research, an

experimental study on the use of information technology systems for cross-border healthcare service management, should be conducted to solve the problems of service delays in medical treatment and communication barriers between hospital personnel and foreign healthcare recipients**.**

Due to the COVID-19 pandemic, the researchers were unable to obtain data from those who received treatment at the target hospitals. There were no data on patient satisfaction with access to cross-border health services. Therefore, the data collected by the accidental sampling method can only be used as preliminary data for enhancing cross-border healthcare operations.

ACKNOWLEDGMENTS

We appreciate the information provided by our network partners and service recipients from Lao PDR and Cambodia for this research project**.** We are grateful to the administrators of Ubon Ratchathani University**'**s College of Medicine and Public Health for their support and the Thailand Science Research and Innovation **(**TRSI**)** for their funding**.**

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