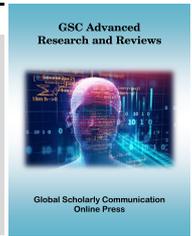


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(RESEARCH ARTICLE)



Patient's backgrounds, perceptions toward a primary medical centers and reasons in getting medical services at general clinic in the provincial hospital

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Abstract

Primary health care system takes important role in citizen health care with abundant of primary care unit near citizen residents in order to solve barrier of distant region health care accessibility problem and appropriate referral system. This research objectives are to study patient characteristics, primary care unit acknowledgement and reason for visiting in general practice outpatient department, result of health care service and traveling details including distance time and money cost of journey to receive health care service. A descriptive cross-sectional study collecting data from 343 patients in sample group with government universal coverage health insurance plan. The result found that 77.84% of the samples are female and 22.16% are male with mean age of 56.01 ± 14.67 year. Majority of samples are freelance general contractor and housekeeper. Average household income was $4,040.06 \pm 4,536.75$ baht. 54.22% of patients have at least one underlying disease. 95.59% of the patients acknowledge their primary care unit and had experience of using the primary care unit. Average distant to the hospital was 12.22 ± 6.79 kilometers, average time was 30.39 ± 12.23 minutes and average cost was 159.75 ± 69.42 baht. Average distant to primary care units was 3.1 ± 2.63 kilometers, average time was 13.91 ± 6.69 minutes and average cost was 21.86 ± 33.63 bath. 99.41% of the patients were discharge as the result of health care service. The sample group are aware of their own primary care unit but travel to the hospital by choice despite higher cost comparing to cost of traveling to their own primary care unit. The results may be applied to develop strategies for several aspects of primary care unit services and accessibility.

Keywords: Patient's background; Perception; Primary Medical Centers; Provincial hospital

1. Introduction

Currently, a primary medical center plays a crucial role in the international level, and it is a key aspect in providing health care to residents in a country (1-4). This is because it assists the residents to access health care more conveniently, and they can also get the better medical service. There was an operation of several primary medical centers nearby residential areas. (5) This is to help relieve the commuting expenses for people who live in a distant area and to reduce a hospital overcrowding. One of the aims in founding a primary medical center is to help make a decision in transferring patients to hospitals according to the seriousness of their illness. However, many people choose to get healthcare from a hospital without visiting a primary medical center in their neighborhood first. This problem existed long time ago and persists to occur until nowadays. People, therefore, have to be burdened with expensive commuting expenses, long waiting time and unbearable overcrowding in hospitals. [5-7] This issue continues to exist

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despite the fact that there are several primary medical centers and local promoting health hospitals in different regional parts of Thailand, and in fact, this primary service can help Thai residents to access better medical service. [8-15]

Saraburi Hospital provides primary healthcare service in a form of general clinics and primary medical centers under the operation of Saraburi Hospital, including medical centers in Muang District such as Family Practice Clinic, Municipal Hospital, Community Medical Centers in Kheha, Khao Khuba and Wat Cheng Khao and medical centers outside Muang District such as promoting health hospitals.[16] However, it is found that General Clinic at Saraburi Hospital is still burdened with a large number of visitors from various areas, and instead of getting primary healthcare from primary medical centers or promoting health hospitals in their areas first, these visitors often go straight to the hospital. According to 2018 Budget [17], it is found that while there were only 24,515 visitors who received medical service from promoting health hospitals in their areas, there were 94,188 visitors who went straight to Saraburi Hospital. Regarding to the number of visits, there were only 95,434 visits at promoting health hospitals whereas there were 418,946 visits at Saraburi Hospital. These numbers are quite large because based on the estimated efficiency of General Clinic, the daily maximum number of visitors that the clinic can provide service to should be 60. However, nowadays there are approximately 60-80 visitors per day, which are the healthcare coverage around 20 persons per day.

Despite the advancement of transportation in these days, many people still find that topography could pose them some difficulties [13, 18-21]. The issues are also included distance, time and expenses in commuting. However, there are a greater number of people who prefer to get medical service from the hospitals and only fewer people who access primary medical centers in their neighborhood first [10, 12-14]. Consequently, this leads to overcrowding in the hospitals. In addition, due to certain reasons, people find that there are some differences of the resource provided by primary medical centers and that of hospitals [11-14, 21]. They also feel that doctor's performances and diagnosis rounds are different in each context. Moreover, each visitor has different opinions in getting medical service from the hospitals [6]. For example, some people claim that they go to hospital because they want to be investigated by a doctor, and they are informed that a doctor only makes a visit at health promoting hospitals only 1-2 times per month. Hence, they are afraid that if they go to health promoting hospitals when a doctor is not there, they will be investigated by a nurse practitioner. On the other hand, if they go straight to a hospital, it is certain that they will be diagnosed by a doctor. Several preferences also caused by the fact that there are some medical tools, investigation or medicine which are available only at a hospital.

To study patient's backgrounds, perceptions toward primary medical centers or promoting health hospitals in their neighborhood and reasons in getting medical service at General Clinic in Saraburi Hospital. The objective of study also includes the study of the outcomes of medical service and details regarding the commute such as distance, time and expenses.

2. Methodology

2.1. Research design

This is a descriptive cross sectional study, and the data are collected and analyzed according to the objectives.

The samples in this study are Universal Health Coverage Service insured patients who aged 18 or older and made a visit at General Clinic in Saraburi Hospital during October 2018 -March 2019. The total number of samples is 343. The size of sample group is calculated by Yamane formula, by $N = 2,400$. This comes from the average number of visitors 20 persons per days and 20 days per month throughout 6 months of data collection.

2.2. Research instruments

A Tool includes a questionnaire created by the researcher through literature review. The questionnaire can be divided into two sections. The first section includes 7 inquiries regarding to participant's general data while the second section includes 11 inquiries regarding to their access to medical service. The contents of this questionnaire were investigated and approved for its accuracy by two senior officers.

2.3. Research processes

In data collection process, a meeting is held to provide information to two officers at General Clinic in Saraburi Hospital. These two officers are appointed to collect data and provide information regarding the questionnaire to the

participants. The participants can freely fill in the questionnaire, and they can ask the officers any questions they may have.

Descriptive statistics such as percentage, average number and standard deviation are used to analyze and present patient's general data and factors stated in the objectives.

2.4. Right to Protection and Research Ethics

This study has been approved by the committee of research ethics regarding to human study of Saraburi Hospital. (The number of project: EC009/2563. signed at 12 March 2019).

3. Results

This study is conducted by collecting data from 343 participants who are eligible, determined by the inclusive criteria, and the analysis of a survey will be stated below.

Table 1 General Information

Basic Information	Number	Percentage
Sex		
Male	76	22.16
Female	267	77.84
Age (years old)		
18-35 ¶	40	11.66
36-44	28	8.16
45-59	123	35.86
60-70 ¶	106	30.90
> 71	46	13.41
Mean ± SD	56.01	14.67
Occupation		
General contactor	130	37.90
Housekeeper	101	29.45
Merchant/Seller	49	14.29
Farmer	26	7.58
Officer	5	1.46
Personal business	5	1.46
Students	2	0.58
unemployed	25	7.29
Incomes/month (Baht)		
< 1,000	80	23.32
1,000-4,999	143	41.69
5,000-9,999	94	27.41
10,000-15,000	20	5.83
> 15,000	6	1.75
Mean ± SD	4,040.06	4,536.75
Education		
< Bachelor degree	338	98.54
Bachelor degree	4	1.17
> Bachelor degree	1	0.29
Disease		
None	157	45.77
Underlying disease	186	54.22
1 disease	120	34.99
2 diseases	44	12.83

3 diseases	22	6.41
Underlying disease		
None	157	45.77
Hypertension	59	17.20
Dyslipidemia	53	15.45
Diabetes mellitus	49	14.29
Asthma	13	3.79
GERD/Dyspepsia	13	3.79
Coronary heart disease	11	3.21
Allergic rhinitis	8	2.33
Thyroid disease	8	2.33
COPD	7	2.04
Anemia	5	1.46
Cirrhosis/Hepatitis B	4	1.17
Rheumatoid arthritis	4	1.17
Benign prostatic hyperplasia	3	0.87
Chronic kidney disease	3	0.87
Gout	2	0.58
Migraine	2	0.58
Stroke	2	0.58
Bipolar disorder	1	0.29
Breast cancer	1	0.29
Epilepsy	1	0.29
Psoriasis	1	0.29

According to Table 1, it is found that the majority of participants are females (77.84%), while 22.16% of them are males. Regarding to age, the largest proportion is those aged 45-59 (35.86%), and this is followed by those aged 60-70 (30.90%). The average age of participants is at 56.01 ± 14.67 years old. In terms of occupations, most of the participants are a general employee (37.90%) while those who are a housemaker account for 29.45%. Also, people with other occupations make up for 32.66%. Regarding to the amount of income, people whose households gain 1,000-4,999 baht per month account for 41.69, while there are only 27.41% who claim that their households gain 5,000-9,999 baht per month. The average monthly income is at $4040.06 \pm 4,536.75$ baht. In terms of education, 98.54% of participants are not bachelor graduates while 1.46% of them hold a bachelor degree or higher. Regarding to chronic disease, 45.77% of participants report that they have no chronic disease while 34.99% of them have one chronic disease. The most common chronic diseases are high blood pressure, dialysis and diabetes at 17.20%, 15.45% and 14.29% respectively. Meanwhile, 19.24% report that they have 2 chronic diseases or more.

Table 2 Perception of primary care unit

Acknowledgement	n=343	Percentage
Perceive and experience with service	321	95.59
Perceive and not experience with service	20	5.83
No perceive and not experience with service	2	0.58

Table 2 reveals data regarding to an awareness of a primary medical center. 95.59% of participants are aware of a primary medical center in their areas, and they have accessed the center before. Meanwhile, 5.83% of them know about

a primary medical center, but they have never made a visit there. Only 0.58% of them are not aware of a primary medical center in their areas.

Table 3 Number of patients from different districts whom visit general practice outpatient department Saraburi hospital without referral service from their own primary care unit

District	N=343	Percentage
Mueang Saraburi	141	41.11
Chaloem Phra Kiat	70	20.41
Nong Khae	74	21.57
Kaeng Khoi	53	15.45
Sao Hai	4	1.17
Other	1	0.29

Table 3 represents districts where most of participants, who go straight to General Clinic in Saraburi Hospital without visiting a primary medical center, come from. It is found that 41.11% of participants com from Muang District, while 58.89% of them are from other districts. The details regarding to primary medical centers in each district can be found in the first diagram.

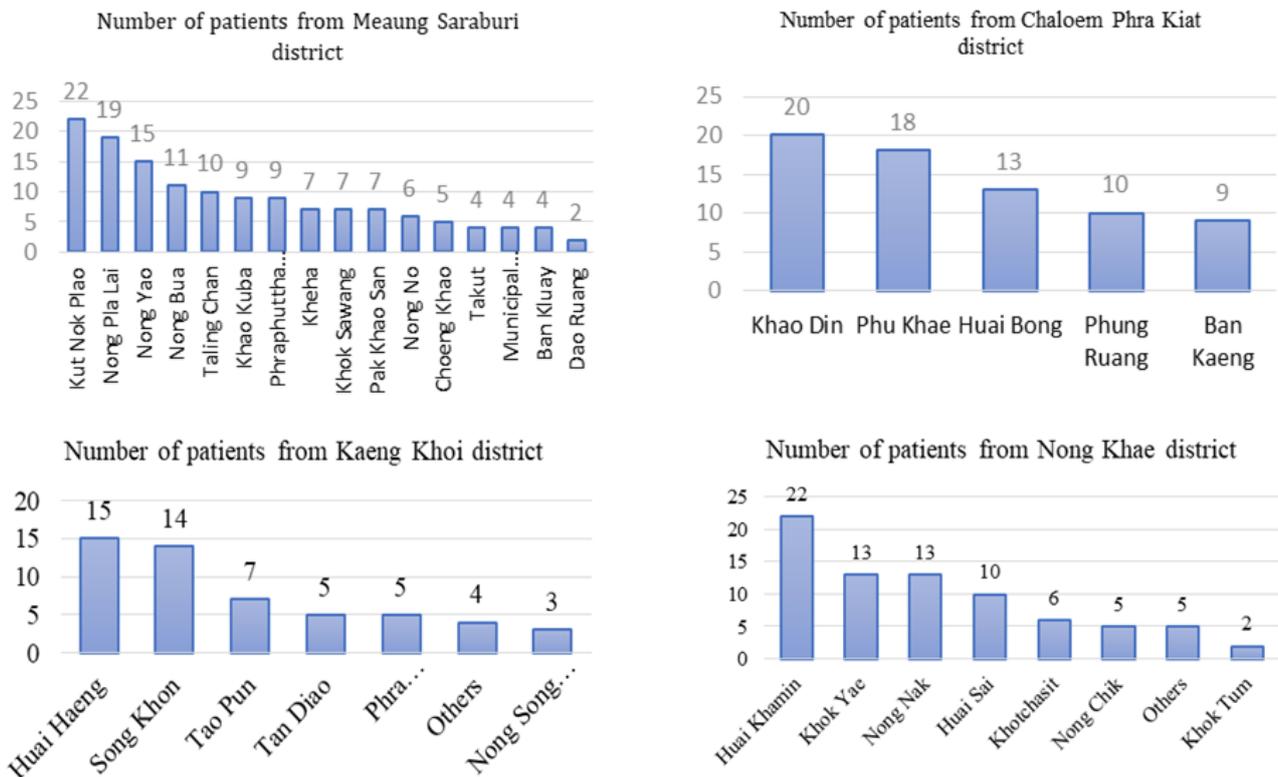


Figure 1 Bar graph demonstrated the number of patients from different primary care setting

Table 4 Reasons of patient whom visit general practice outpatient department Saraburi hospital

Reasons for service visit (n=343)	Frequency	Percentage
Perception of traveling to the hospital is more convenient	258	75.22
Primary care units instruct to directly travel to the hospital	107	31.20
Primary care units have insufficient medical supplies/tools	66	19.24
Primary care units have no doctor at the time of patients' visits	49	14.29
Patients are not informed of their corresponding primary care units	8	2.33
Perception of severe symptoms suggested direct hospital visit	6	1.75
Desire of specific disease examination	4	1.17
Perception of unresolved/unimproved symptoms suggested direct hospital visit	3	0.87
Unsatisfaction of primary care unit personnel/staff	2	0.58
Perception of medicine from hospital superior to primary care unit	2	0.58
Satisfaction of hospital service	1	0.29

Table 4 indicates the reasons why the participants prefer to getting medical service from General Clinic in Saraburi Hospital. 75.22% of participants state that the commute to the hospital is convenient while 31.20% of them said that their primary medical centers suggest them to go straight to the hospitals. Meanwhile, 0.58%, or 2 out of all participants, reported that they are not satisfied with the medical service given at their primary medical centers.

Table 5 Details of traveling for service accessibility

Traveling details	Mean	SD
Average distant from household to the hospital (kilometer)	12.22	6.79
Average distant from household to the primary care unit (kilometer)	3.1	2.63
Average time from household to the hospital (minute)	30.39	12.23
Average time from household to the primary care unit (minute)	13.91	6.69
Average cost from household to the hospital (Baht)	159.75	69.42
Average cost from household to the primary care unit (Baht)	21.86	33.63

Table 5 illustrates the details about the commute to Saraburi Hospital. The average distance is 12.22 kilometers, time is 30.39 minutes and expense is 159.75 baht. Regarding to the commute to a primary medical center, The average distance is 3.1 kilometers, time is 13.91 minutes and expense is 21.86 baht.

Table 6 Result of service

Result of service	Frequency (Patient)	Percentage
Discharge	341	99.41
Different department consultation	1	0.29
Admitted to the hospital	1	0.29

Table 6 shows that 99.41% of the participants are discharged from the hospital. Meanwhile, there is only one patient, accounting for 0.29%, who is transferred to get further treatment in other department. Only another 0.29%, or just one patient, is admitted in the hospital.

4. Discussion

Regarding to general backgrounds of patients received service from General Clinic in Saraburi Hospital, most of them are female, and they are at around working age to middle age. The minority of them are graduated with a bachelor degree or higher. However, since it is initially in the inclusive criteria that the participants must be insured with Universal Health Coverage Service, it is hard to determine if educational level will similarly play an important role in patients with other insurances. To illustrate, almost all patients with Universal Health Coverage Service are not bachelor graduates, and their household income is relatively low, comparing to the legal minimum wage in Saraburi Province – 325 Baht [22]. Only 7.58% of them have higher income than the minimum wage for monthly workers. It is found that the majority of participants are general employees and homemakers which correspond with their low incomes, while there are 7.29% of them who are unemployed. Due to their low income, if the participants have to shoulder the wastes on time and money caused by the commute to the hospital, they are more likely to suffer from financial issues.

It is found that there are 54.23% of participants who have one chronic disease or more, and most of these diseases are non-infectious diseases such as high blood pressure, dialysis, diabetes and so on. Additionally, they are not such a complicated disease that needs to be investigated by a specialized doctor only, and in fact, the patients can initially get an assist from the primary medical centers. The similar percentage, or 45.77%, of the participants have no chronic disease.

The majority of participants are aware of primary medical centers in their residential areas, and they have received the primary medical service there before. However, they decide to go straight to Saraburi Hospital without visiting the primary medical centers for several reasons as stated in Table 4. It is found that most participants who reside in Muang District find that it more convenient for them to commute to the hospital, comparing to those who live in other districts. Similarly, those who live in other districts also mention that convenience in commuting is the key reason why they prefer to get medical service from Saraburi Hospital. The second most common reason is that there are no medical investigation tools and permanent doctors at the primary medical centers. The minority of participants states that they have personal reasons, and two of them mentioned that they are not satisfied with the medical service provided at their primary medical centers. It is possible that many participants might agree with this reason, and providing this information to primary medical centers will help solve the existing issues, the skip in visiting primary medical centers.

Regarding to the commuting details, it is found that the average distance, time and expenses in commuting to Saraburi Hospital are higher than those in commuting to primary medical centers. To illustrate, the average expense in commuting to Saraburi Hospital is 159.75 Baht, which 7.31 times higher than the average expense in commuting to primary medical centers. The majority of participants mention that convenience in commuting is the reason why they prefer to get medical service from the hospital. However, when considering higher time and money that they need to spend on the commute, it conveys that the participants might feel more comfortable to pay additional costs to obtain “convenience” in other senses. If their sense of “convenience” is about how conveniently they can commute, it should be more convenient for them to commute to primary medical centers when considering the aforementioned three factors.

As many of 31.20% of participants claimed that their primary medical center notifies them to go straight to Saraburi Hospital, so they need to commute a long distance to get medical service from the hospital. In addition, lack of medical tools and no permanent doctors are the reasons why many participants prefer to get healthcare from the hospital.

5. Conclusion

From the study, it is found as following details: the 77.84% of samples are females while 22.16% of them are males. The average age of participants is at 56.01 ± 14.67 years old. The majority of them are general employees and homemakers. Almost all of participants' level of education is under a bachelor degree. The numbers of participants who have and do not have chronic diseases are quite similar. The most common chronic diseases are high blood pressure, dialysis and diabetes. Most of the participants are aware of their primary medical centers and have accessed them before. The majority of them stated that convenience in commuting is the reason why they prefer to get medical service at Saraburi Hospital. Meanwhile, other reasons, including lack of medical tools, no permanent doctors and unawareness of their primary medical centers, account for merely 2.33% each.

There should be a reconsideration regarding possible obstacles in getting a medical service and convenience in commuting to a primary medical center in each area. A primary medical center should publicize their general information, services and range of abilities to people in their area, and the center should seek a way to respond to people's health demands. The convenience in commuting to a primary medical center should be improved, and the center should be enabled to supply more medical tools and employ a permanent doctor. This will significantly help decreasing people's possible obstacles in getting medical services from the primary center as well as their burdens in commuting the long distance.

Compliance with ethical standards

Acknowledgments

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Disclosure of conflict of interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and or publication of this article.

Statement of ethical approval

As this study involves human subject, it has been approved by the committee of research ethics regarding to human study of Saraburi Hospital, Thailand. (The number of project: EC009/2563. signed at 12 March 2019).

Statement of informed consent

This study involves information about any individual such as survey, interview. The informed consent was obtained from all individual participants included in the study."

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