WHAT ARE PHARMACIST'S EXPECTATIONS REGARDING PRIMARY CARE PHARMACY SERVICE?: A PRELIMINARY STUDY OF NORMATIVE EXPECTATIONS IN THE PUBLIC HEALTH SYSTEM IN THAILAND

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ABSTRACT:

Background: In Thailand, primary care service is a minor unit in health system; the service is divided into 3 sub-levels--individual, family, and community. For decades, community patients were mainly cared by nurses and community health staff, while, pharmacists, as healthcare providers, were expected to participate in community health for managing medication therapy. Recently, to provide pharmaceutical care in primary care settings, primary care pharmacy service was initiated by Thai pharmacists in public hospitals. Nevertheless, this new service is still in the learning and growth period.

Methods: This study aimed to describe pharmacist's expectation toward primary care service from the provider's perspective. The qualitative method was applied. Primary care pharmacists in public healthcare settings were purposively selected as key informants with regard to their experiences in these services, as well as being publicly recognized as pharmacy care givers. All key informants were in-depth interviewed. All conversations were recorded and transcribed. Content analysis was adopted and triangulation of analyzed data was applied for validation. Overall, 14 primary care pharmacists across 4 national regions were interviewed. Most of them were male with a bachelor's degree in pharmaceutical science. The participants averaged 10.5 years in pharmaceutical work experience.

Results: The study showed that the pharmacists' expectations were divided into 4 parts –outcomes, process, roles, and service quality. The outcomes of service were "self-care" among patients or healthy people, "safety" in particular medication used in individual, family and community level, as well as, "efficacy" regarding clinical and non-clinical indicators, such as, reduction of HIV viral load, good adherence to medication, and good quality of life. The process of service was arranged respectively by case selection, pre-home/community visit, home/community visit, assessment, management, data delivering and monitoring. The roles of primary care pharmacists were provider, manager, supporter, and learner. Service quality was viewed as tangible, responsiveness, empathy in primary care pharmacy practice, and reliability in pharmacist's competency.

Conclusion: All pharmacist's expectation to primary care pharmacy services enables multi-disciplinary health professionals to gain more understanding of what pharmacist "could" and "should" do for patients. To complete the expectation's viewpoints, the further study of client's expectation toward primary care pharmacy service is required.

Keywords: Pharmacist's expectation, Primary care pharmacy service, Primary healthcare services, Thailand

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INTRODUCTION

Primary Care Pharmacy has various functions in accordance with each country's context of health service, such as, in United Kingdom, they divided the roles of pharmacist into 3 areas; community, hospital, and primary care, which the new role of primary care pharmacists is to work in clinical and administrative services together with medical general practitioners (GPs) and/or Primary Care Trusts (PCTs) [1]. Roles of primary care pharmacists in Britain are to review medicines

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prescribed for older patients living at home, and who were receiving five or more medicines on repeated prescription, to discuss medicine-related problems with the GPs, to devise, to implement, and to monitor pharmaceutical care plans. Advance and enhanced pharmaceutical services included anticoagulant monitoring, disease-specific medicines management, home health care, smoking cessation, community drug system consultant, medicine assessment and compliance support, pharmacy administration support, and screening services [2].

In Canada, similarly, there were two typologies emerged with general pharmacists who worked jointly with Family Health Team (FHT)--(1) Physician oriented that pharmacist responded to physician requests for drug information and other projects, and (2) Working at multiple levels of interaction that pharmacists provided patient-centered care, supported education/information, and initiated system-level interventions in order to improve drug therapy [3].

In the United States, many roles of primary care pharmacists are expected that they are to refill prescription correctly, to advise consumer in medication usages, to resolve medication-related problems by coordinated between physician and patients if there were any medication issues, to collaborate with physicians as a member of community-based health care team in order to improve safety of medication use. Besides that, primary care pharmacists have to inform physician in drug pricing data, clinically-significant drug interaction, dosing recommendation, alternative medication, patient compliance, OTC/prescription drug interaction, drug adherence, to advise patients how to take medications properly, and to monitor inappropriate prescription [4].

Since the role of Thai pharmacists shifted from product- to patient-oriented approach, similar to their international experiences, Thai pharmacists are encouraged to work proactively in primary care units, including consumer protection, home health care, herbal and traditional care, and medical inventory management in "Tambon Health Promotion Hospital." Tambon Health Promotion Hospital is a primary care unit in Thai public hospital.

However, there were several professional institutions who participated in Thai primary care pharmacy services in the early period of service provision. Initially, pharmacists who work in public hospital are the major workforces in primary care pharmacy services in Thailand. In addition, The Home Health Care Community of Practice (Home Health Care Cop), formerly known as The Society of Family Pharmacists, Thailand (SOFT) is supported by the Thai Hospital Pharmacy Society. It is a multi-professional health team who is responsible for patient and family care.

Another group of Thai primary care pharmacist is a community pharmacist or pharmacists who work at drug store. The community pharmacist works for home health care in chronic disease cases--screening and risk assessment in hypertension, diabetes and stroke, including behavior modification, such as, smoke cessations and activities to reduce metabolic syndrome, and consumer protection. In addition, most community pharmacists are members of Thai Community Pharmacy Society that encourages members to mainly provide pharmacy services in community level. However, the role of Thai community pharmacist in primary care service is only to provide screening service; not any initiations to provide comprehensive community care as their international peers.

National Health Security Office (NHSO) and Thai Pharmacy council work collaboratively, as an intermediary that plan, integrate and manage primary care pharmacy services into health care system and entitle "primary care pharmacist" as one of the major roles of Thai pharmacists. According to the NHSO definition, a primary care pharmacist is a pharmacist who provides pharmaceutical care to patients in the community and monitors safety of medications and health products in 3 level-personnel, family and community. In another words, there are 3 major roles for individual primary care pharmacists-pharmaceutical management, pharmaceutical care, surveillance of safety use in medication, health product and traditional medicine, and health promotion in changing health behavior's risks among people in community [5].

It is obviously that primary care pharmacy service in Thailand are still in initial stages of growth. To provide primary care pharmacy service appropriately, normative customer's expectations are a key-factor to develop primary care pharmacy service to meet the client's needs. The provider's expectation is also required to understand what primary care pharmacists expect of their provided services. The concept expectation has various meanings, such as, a subjective evaluation of the value of that attribute at a particular point in time [6], and a belief about an object and an attribute of that object [7].

This study aims to describe a pharmacist's expectation toward primary care service from a provider's perspective. The four dimensions of a provider's expectation that will be used in this study were adopted from a model initiated by

Russ et al. [8]--"Outcomes" are the results that providers want to see after clients received their service, "Process" is a step or what should be done to provide an efficient service, "Roles" is a role, skill or attitude that primary pharmacist should have to provide an effective service, and "Service quality" is something to ensure the quality of primary care pharmacy service in 5-sub dimensions--tangibles, responsiveness, empathy, and reliability.

MATERIALS AND METHODS

Study design

This study is a Qualitative research. A semi-structured in-depth interview, transcription, triangulation, and analysis was applied for data.

Study population and sample

Criterion Sampling was applied in this study. Inclusive criteria are pharmacists who were accepted in primary care pharmacy service and/or were teacher practitioners in primary care pharmacy services in the Thai public health care setting and who were voluntarily participating in this study. Overall, the number of pharmacists was 14 key-informants in 4 national regions.

Data collection

A semi-structure for in-depth interview was applied in this study. All informants were interviewed regarding their expectations into 4 topics-- outcomes of primary care pharmacy service, process of primary care pharmacy service, pharmacists' role as primary care pharmacy service givers, and primary care pharmacy service quality. All conversations were recorded and transcribed.

The interviewed questions were divided into 2 parts-- the open-end question was begun by "What are your expectations to primary care pharmacy services?" and then guided questions were raised if participants did not mention the key-information following the topics, such as "Was primary care service benefit to customers regarding self-care practice or to solve their own health problems? Is there any service that primary care pharmacist should provide to customers in order to advocate their self-care practice or to solve their personnel health problems?

The same questions were always presented to all informants and interviewed by the investigators.

Data analysis

Transcribed data was interpreted and validated by the triangulation technique. After that, analysis was done by the thematic analysis technique-- capturing the key-point, indexing, classifying, and verifying a conclusion. This technique was properly used in accordance with the given statements from informants, which were eventually matched to interested themes, otherwise, to any new themes emerged from interviewed data.

The descriptive data was collected and managed by licensed software--MS Word and MS Excel. The informant's characteristics were described by using descriptive statistic for characteristic data, such as, numbers, percentage, and mean.

Table 1 General characteristics of informants

Characteristics	No.	Percent (n=14)
Regions in Thailand		
South	6	42.85
Central	4	28.57
East	2	14.29
North-east	2	14.29
Sex		
male	9	64.29
Female	5	35.71
Education level		
Bachelor	11	78.57
Master	3	21.43
Lengths of working (Years)		
1-5	6	42.86
6-10	1	7.14
11-15	2	14.29
>15	5	35.71

RESULTS

Table 1 shows the general characteristic of 14 key-informants, 42.85 percent work in the South of Thailand, 64.3 percent were male, and 78.6 percent have bachelor degrees in Pharmaceutical sciences. The average period working as a pharmacist was 1-5 years. In Table 2, the individual informant's data was described as a background, which, sometimes, linked to the interpretation of results.

Results shown in Figure 1 reported that 4 dimension of expectation toward primary care pharmacy service as a provider's perspective was presented. In service outcomes (42 comments), there were 3 sub-dimensions of the outcomes; Firstly, The informant gave a strong comment regarding self-care (47.6 percent [20/42]):

> *"…out of a hundred medication problems, they can't solve all of them. However, they must solve any serious or prioritized problems by themselves."* (Informant no. 3)

(2) The medication safety (19.0 percent [8/42]), the issue was divided into 2 topics--personal medication safety and family/community medication safety, and (3) efficacy (33.3 percent [14/42])

Table 2 Individual Informant's data

Number of informant	Regions in Thailand	Sex	Highest education	Lengths of working	Types of health setting for individual informant's workplace*
1	South	Female	Bachelor	3	primary
2	Central	male	Bachelor	18	Primary
3	Northeast	Male	Bachelor	13	Primary
4	Northeast	Male	Master	19	Primary
5	Central	Female	Bachelor	4	Tertiary
6	Central	Female	Bachelor	19	Tertiary
7	East	Male	Bachelor	8	Primary
8	East	Male	Master	25	Primary
9	Central	Male	Bachelor	5	Tertiary
10	South	Female	Master	11	Primary
11	South	Female	Bachelor	2	Primary
12	South	Male	Bachelor	1	Primary
13	South	Male	Bachelor	3	Primary
14	South	Male	Bachelor	16	Primary

*Primary = Medical center, district hospital (10-150 beds), Secondary = general hospital (200-500 beds), Tertiary = specific hospital (over 500 beds and/or specific for special disease)

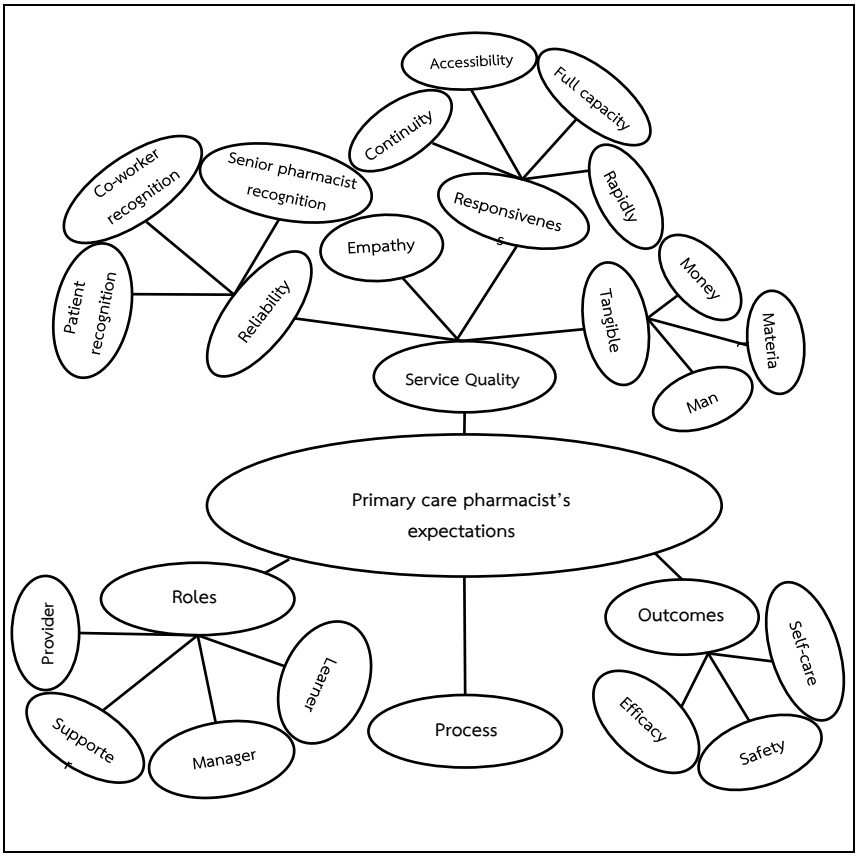


Figure 1 Dimensions of pharmacist's expectation

including clinical and non-clinical indicators such as reduction of HIV viral load, good adherence to medication, and god quality of life, as quoted;

"…although Tuberculosis (TB) patients need anti-retroviral drugs that show good viral load, CD4, they also need a good quality of life and good self-care. They must be strong enough to live with disease and should be able to share their experiences of living with the disease with other TB patients." (Informant no. 14)

"....I agrees that primary care patients should not have any anxiety or suffer from medication use. Primary care pharmacy pharmacist must not change their everyday lifestyles, such as if they want go to the temple, they can go, if they want to work, they can work." (Informant No. 3)

"...Patients are suffering from present distress. Steroid doesn't cause their deaths tomorrow, as well as, disease doesn't cause their deaths tomorrow. In contrast, if they can't work, they will have no money, and they will die. It implies that, disease is not the true problem. Medication solving is also unnecessary, a clinical outcome is not a first priority, compared to poverty." (Informant No. 3)

The process of service (16 comments) was respectively summarized as case selection, pre-home/community visit, home/community visit, assessment, management, data delivering, and monitoring. It should focus on the relationship between primary care team and patients, as well as encouraging the client's participation in the process, as was said here with:

"...service process is to select a community case, which was a referral patient from other hospitals, or any patients who needs seamless and continuous care at home, to review his or her medical documents thoroughly, then to engage the patient at his/ her residence, to seek for medication or identify the health problems of a patient and assist in planning and to solve the problem, and to monitor patients after primary care pharmacy service." (Informant no. 1)

Moreover, most experienced informants agree to provide a tailor-made primary care service that serves the individual patients' needs.

A role of primary care pharmacists (88 comments) was "a provider" in both health service and health information. In a Thai context, the pharmacist in the role-- as health information provider, must have good interpersonal skills and, sometimes, develop a strong personal relationship with the patient as quoted:

"I had an experience that patient were not informed about their true health condition. Consequently, those patients, who were mostly in the last period of life, spent more money for their unnecessary treatments. If I was acquainted to him or her, I would tell the truth. I hope that the truth would allow him or her to accept the fact and then prepare for a palliative care plan, including a care giver, or leave a last message to his or her relatives." (Informant no. 4)

The second role of primary care pharmacist is "a manager"; being case manager and community manager, who manage individual health problems or health needs. In particular, primary care pharmacist as a manager must have clinical knowledge, non-clinical knowledge like interpersonal skills such as good communication, coordination, and a mindset of holistic care as quoted:

"...I visit my patients who are mostly Tuberculosis and HIV/AIDS at their home. I am confident that I can do anything like other professionals but it isn't inconvenient or a disruption for my patients. A multi-professional team must have more collective skills." (Informant No. 14)

"...Primary care pharmacist should have more skills, such as, wound dressing, basic physiotherapy, and lung sound detection." (Informant No. 10)

"...Role of primary care pharmacist in palliative care is a case manager who can do comprehensively because one village is wide that a person has to manage the whole with regard to insufficient health staffs. In addition, each patient has a different problem. Thus, treating drug related problem are not only purpose of the service. Primary care pharmacist must integrate clinical and non-clinical knowledge to serve the needs of the patient." (Informant No. 4)

"I have met an HIV/AIDS patient who was driven out by his family. I talked to the village committee in order to help him in any way possible. We decided to take him to a temple where the abbot agreed to take care of him. Presently, he is strong enough to work. You see, if we did not help him, he would be a vagrant who would just be waiting, day by day, for death to come." (Informant no. 4)

The third role as "a supporter"—is mainly to respond to the drug system in the community, to co-ordinate with community health professionals, to

empower the community as part of health promotion and prevention, and to advise people about health issues. "A learner" is another role of primary care pharmacists that insist on lifelong learning. It is expected that primary care pharmacists should have a systematic thinking in a consequence of being good learner. This quote is to support the idea of life-long learning for primary care pharmacist.

> *"...primary care pharmacist must organize and integrate both life-long knowledge and clinical experiences into serial health services, for example if you met a patients who was using insulin injections incorrectly, primary care pharmacists would determine if the drug explanation for patient who use insulin injection at hospital pharmacy counter was too awkward for the patient's understanding or not? What about the problem of drug labeling for patients?"* (Informant no. 4)

Service quality is the last dimension of the provider's expectation (65 comments). It was divided into 4 sub-categories --tangible, responsiveness, empathy, and reliability. Tangible is composed of (1) man or human resources --multi-professional team, primary care pharmacist, care giver, and patient's neighbor, (2) materials or service facilities --medications, medical instruments, vehicles, and information, and (3) money or financing resources. Responsiveness is a reaction to the patient when the pharmacist works in primary care services, including accessibility, continuity, full capacity, and promptness. Empathy is the ability of pharmacist to understand the feelings of the patient and respond properly to those feelings. Pharmacist should have patient, family, and community empathy as quoted:

> *"...primary care pharmacist must understand patient holistically, included disease, family, mental, socio-economic status."* (Informant no. 13)

> *"...in the future, the primary care pharmacist will be expected to understand patient and family feelings."* (Informant no. 12)

> *"...two major obstacles in home care service are transportation and time. Sometimes, I would like to see my patients for their follow-up service but I can't do that because the hospital vehicle is unavailable..."* (Information No.14)

> *"...I expected that human resources would be sufficiently provided. In other words, the number of primary care pharmacists must be relevant to the number of people in each health care setting...."* (Informant No. 13)

Reliable characteristics of pharmacist, recognized by other professionals are typically categorized in Thai service quality. In the Thai context, the reliability is strongly indicated by the recognition system--from patient, co-worker, and senior pharmacist--by individual competency viewed by "SMART", considering the spiritual perspective, medication knowledge, attitude, relationship, and teamwork.

DISCUSSION

This study is to explore pharmacist's expectations to primary care pharmacy service. Individual pharmacists, who had years of experience in primary care pharmacy service, defined different levels of expectations to the service because of different socio-demographic and socio-economic aspects, different experiences of informants and different provisions of service in relation to level of health care setting.

Some expectations were difference to the outcome, in particular non-clinical outcomes, which are caused by the economic status of the client or patient. It is also found that a different expectation to tangibility regarding service quality improvement is as the result of different in community geographic. The anticipated process of primary care service is dependent on the responsibility of the health service setting. In addition, the different levels of expectation to "Role" is associated with 3 factors, namely 1) socio-demographics and socio-economic factors--a relationship between client and service provider links to the different roles of providers 2) experiences of each informant-- the more the experiences in the services, the more are the roles of primary care pharmacists expanded. and 3) provisions of service in relation to levels of health care setting--the more specialized process of primary care pharmacy services, the higher expectation to the role of pharmacist is presented. Therefore, primary care pharmacy service could be differentiated in each area.

Overall, there were 7 main expectations to primary care services, divided into 4 dimensions following Russ [8]. All informants agreed that "quality of life" is a normative expectation in the outcomes of the service. The expected role of pharmacist in primary care service was emphasized frequently by informants. In addition, primary care

pharmacists must have essential skills, such as clinical and interpersonal skills. It was interesting to find that--most informants believed that service quality should be recognized by others, such as, patient, care giver, co-worker, and/or supervisor, rather than by any explicit criteria. Regarding this finding, it is suggested that the 360 degree assessment technique could possibly be applied in assessing the reliability of Thai primary care pharmacy service. A sufficient number of primary care pharmacists, which are associated with service quality, are concerned of a heavy workload in the current pharmacy services among public health settings, especially, in rural areas.

The limitation of this study is that the only provider's expectation to primary care pharmacy service was explored. To complete the participants' viewpoints on the expectations, the further study of client's normative expectation toward primary care pharmacy service is required. This further study would make the expectations more comprehensive and provide successful guidance in developing primary care pharmacy services in Thailand.

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