

Roles of Primary Care Pharmacists in Public Sector: A Qualitative Study in Thailand

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Abstract

Objective: To define and illuminate the roles of pharmacists needed to enhance the primary care mission in Thailand. **Methods:** The phenomenological qualitative methodology was used. Eighteen participants selected by purposive sampling consisting of 12 professional pharmacists, 3 health practitioners, and 3 health profession leaders were interviewed with a set of semi-structure interview guide and open-ended questions. Audiotape records of interviews were transcribed and analyzed by thematic analysis. Non-participating observations were conducted when the participants allowed. Data collection ended when the conceptual information was saturated and no new data emerged. Triangulation of significant information from three different sources of data was undertaken to ensure the trustworthiness of the study. **Results:** Findings revealed three situational themes of how pharmacists in Thailand developed the roles of primary care; 1) Primary care pharmacists in the midst of conceptualization, 2) The existing roles of pharmacists in primary care and 3) Future prospect of primary care pharmacists. The conceptualization of primary care pharmacy seemed dynamic and context dependent--difficult to consolidate the boundary of tasks while pharmacists performed the primary care roles. The existing roles were defined in 4 categories; 1) professional care practitioner, 2) disease manager, 3) empowering community's health capability, and 4) community drug logistics supervisor. The future of pharmacists' roles was expected to be proactive and capable to work in integrative approach as a change agent for health, and to commit both the roles of professional specialist and health coordinator. Finally, the role concept of "family pharmacists", the approach to patient caring, emerged from this study. **Conclusion:** The role of pharmacists in primary care was concretely defined in this study. The role concept elicits an indispensable guide to further steps of actions for involving stakeholders to fulfill the gap in professional capacity for primary healthcare of the country. The results of this study are strong evidences supporting primary care pharmacists to be eligible and officially approved in the nationwide public health system.

Keywords: primary care, primary care pharmacists, family pharmacists, pharmacy practice

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บทบาทของเภสัชกรปฐมภูมิในภาครัฐ: การศึกษาเชิงคุณภาพในประเทศไทย

ศิริณี ยงประเดิม¹, กร ศรเลิศล้ำวิช^{2,3}¹สำนักวิชาเภสัชศาสตร์ มหาวิทยาลัยวลัยลักษณ์²ภาควิชาบริหารเภสัชกิจ คณะเภสัชศาสตร์ มหาวิทยาลัยสงขลานครินทร์³ศูนย์วิจัยนวัตกรรมทางการศึกษาและความเป็นเลิศด้านการเรียนการสอน มหาวิทยาลัยสงขลานครินทร์

บทคัดย่อ

วัตถุประสงค์: เพื่อค้นนิยามและอธิบายบทบาทของเภสัชกรที่จำเป็นในการบรรลุพันธกิจของบริการปฐมภูมิในประเทศไทย **วิธีการ:** การศึกษาใช้วิธีการเชิงคุณภาพแบบปรากฏการณ์วิทยา ผู้ให้ข้อมูล 18 คนได้รับการคัดเลือกโดยการเลือกแบบเจาะจงประกอบด้วยผู้ประกอบวิชาชีพเภสัชกรรม 12 คน ผู้ประกอบวิชาชีพด้านสุขภาพ 3 คน และผู้นำในวิชาชีพสุขภาพ 3 คน ผู้ให้ข้อมูลได้รับการสัมภาษณ์ตามแนวคำถามแบบกึ่งโครงสร้างและคำถามปลายเปิด เทปบันทึกเสียงสัมภาษณ์ถูกถอดและวิเคราะห์โดยการวิเคราะห์ประเด็น การสังเกตการณ์แบบไม่มีส่วนร่วมถูกใช้ในการเก็บข้อมูลด้วยหากผู้เข้าร่วมการวิจัยอนุญาต การเก็บรวบรวมข้อมูลสิ้นสุดลงเมื่อแนวคิดที่พบมีความอิ่มตัวและไม่มีข้อมูลใหม่ปรากฏขึ้น การตรวจสอบสามเส้าในส่วนของข้อมูลสำคัญทำโดยเก็บข้อมูลจากสามแหล่งข้อมูลเพื่อให้มั่นใจถึงความน่าเชื่อถือของการศึกษา **ผลการศึกษา:** ผลการวิจัยชี้ให้เห็นถึง สถานการณ์ใน 3 ประเด็นเกี่ยวกับการพัฒนาบทบาทของเภสัชกรในประเทศไทยในเรื่องบริการปฐมภูมิ ได้แก่ 1) เภสัชกรปฐมภูมิท่ามกลางการพัฒนาแนวคิด 2) บทบาทของเภสัชกรที่มีอยู่ในสถานบริการปฐมภูมิ และ 3) โอกาสในอนาคตของเภสัชกรปฐมภูมิ แนวคิดเภสัชกรปฐมภูมิมีลักษณะเป็นพลวัตรและขึ้นอยู่กับบริบท-ยากที่จะกำหนดขอบเขตอย่างชัดเจนถึงงานที่เภสัชกรมีบทบาทในบริการปฐมภูมิ บทบาทที่มีอยู่แบ่งเป็น 4 กลุ่ม; 1) ผู้ประกอบวิชาชีพในการรักษา 2) ผู้จัดการโรค 3) ผู้เพิ่มขีดความสามารถด้านสุขภาพแก่ชุมชน และ 4) ผู้ดูแลจิตใจจิตสติกส์ของยาในชุมชน บทบาทของเภสัชกรในอนาคตคาดว่าจะไปในเชิงรุกและมีความสามารถในการทำงานแบบบูรณาการเพื่อขับเคลื่อนการเปลี่ยนแปลงด้านสุขภาพและมีบทบาททั้งในด้านวิชาชีพและผู้ประสานงานด้านสุขภาพ ในประการสุดท้าย แนวคิดเรื่องบทบาทของ "เภสัชกรครอบครัว" ซึ่งเป็นแนวทางการดูแลผู้ป่วยปรากฏขึ้นจากการศึกษาครั้งนี้ **สรุป:** บทบาทของเภสัชกรในการดูแลผู้ป่วยแบบปฐมภูมิถูกระบุอย่างชัดเจนในการศึกษาครั้งนี้ แนวคิดเรื่องบทบาทเป็นสิ่งจำเป็นสำหรับการดำเนินการในขั้นตอนต่อไปเพื่อให้ผู้มีส่วนได้เสียเข้ามามีส่วนร่วมเพื่อเติมเต็มการพัฒนาสมรรถนะของระบบบริการปฐมภูมิของประเทศ ผลการศึกษานี้เป็นหลักฐานสำคัญที่สนับสนุนเภสัชกรปฐมภูมิให้มีบทบาทและได้รับการยอมรับอย่างเป็นทางการในระบบสาธารณสุขทั่วประเทศ

คำสำคัญ: การบริการปฐมภูมิ เภสัชกรปฐมภูมิ เภสัชกรครอบครัว การบริการเภสัชกรรม

Introduction

Health provision in countrywide of Thailand has been clearly directed to focus on improving healthcare accessibility and promoting health awareness of population in all economic levels especially in the remote areas, evidenced by the concurrent movement of major health organizations of the country namely Ministry of Public Health (MOPH), and National Health Security Office (NHSO) (1, 2). Strengthening primary health care service is accepted in broad view as one of the key strategies for accomplishing the mission since the World Health Organization (WHO) has claimed primary health care to be the principal method of delivering health care at the most local level of the system (3). Primary healthcare is defined as the first line health services delivered within community for individuals and families. The role of primary care is supposed to facilitate all ranges of health conditions—prevention, promotion, treatment, and rehabilitation and to improve all aspects of health outcomes—physical, social, and spiritual (4). The national primary health care program was first implemented nation-wide as part of the Fourth National Health Development Plan (1977–1981) (5). Currently the major public mechanisms structured by MOPH to work for the program are primary care units (PCUs) or Sub-District Health Promoting Hospitals (SDHPHs). However, in the current situation there is no official primary care job position for pharmacists in Thai health system; even though there have been studies indicating the need of pharmacists for these tasks. According to Sriwanitchakorn (6), pharmacists were the needed manpower in performing the indispensable roles for primary care settings, especially providing rational and safe use of medication, and supervising alternative medicines used in community. The absence of pharmacists would affect the quality of healthcare services. The question of what and how pharmacists should do to accomplish the task in primary healthcare is persistent. This study is an

attempt to obtain insightful and in-depth data from involving experienced health practitioners, healthcare policy makers and experts from academic sector to define and illuminate the needed roles of pharmacists to enhance the primary healthcare mission.

Methods

The phenomenological qualitative methodology was used to acquire the intersubjective knowledge of Thai pharmacists' roles in primary care from the experiences of highly involved health professionals in the area. "Phenomenological study describes meaning of several individuals of their lived experiences of a concept of phenomenon" (7). The basic purpose of phenomenology is to reduce individual experiences with a phenomenon to a description of the universal essence (8). This study confined in the description consisting of what and how pharmacists practiced in the primary care.

Participants

This study was conducted in 2014. A total number of 18 participants agreed to share their deliberate experiences. There were 12 professional pharmacists and three health practitioners who experienced in public primary care services, and other three health profession leaders. Purposive sampling was undertaken and all the participants were recruited according to the criteria of having high involvement in primary healthcare for more than three years. Pharmacist informants' names were selected by considering their solid background in primary healthcare service and asked for consent before interviewing. Then a number of health practitioners who worked closely with the pharmacists in serving primary care tasks in community for years were invited for interviews. Health profession leaders were selected from academic administrators in the higher education institutions publicly recognized as providers of courses and training in community and primary care service for undergraduate students and health policy makers in

accordance with their consistent influence in primary care, especially their impactful initiatives in promoting primary health care in Thailand.

Data collection

Face-to-face, in-depth interviews with participants were conducted. Open-ended questions and a semi-structured interview guide were used. Each interview of professional pharmacist and health practitioner included questions: 'What kinds of primary care activities do you engage in?', 'Can you give some examples of your success?', and what are the success factors then?', 'What are your biggest challenges in practicing your primary care roles?', 'What support do you need to sustain the role of pharmacist in primary care in the future?' Interviews of health profession leaders emphasized on three protocol questions: 'How can you describe pharmacist's roles in public primary care system, and what is the future you can see?', and 'what supports are planned to facilitate pharmacists in performing the roles?' The interviews, held at each participant's workplace, lasted 45-90 minutes and were audiotape recorded. Data collection in this study ended when the conceptual information was saturated and no new data emerged. Non-participating observations were conducted as well; but only by permission of the participants. Field notes and memos from observations and during interviews were taken with the attempt to describe the context and situations, including subtle matters while pharmacists visited patients and their families at their home places.

Participation in the study was voluntary, and all research participants were interviewed with their informed consent. Pseudonyms were assigned to each participant by using a set of alphabets instead of their names in order to protect anonymity and confidentiality.

Data analysis

The audiotape records of interviews were transcribed and analyzed by using the procedures suggested by Creswell (7): (1) going through interview transcriptions and highlighting significant statements—

sentences or quotes that provide an understanding the phenomenon, (2) developing clusters of meaning from the significant statements into themes, (3) writing a description of what the participants experienced and the context that influenced the experience, (4) writing a composite description that presents the essence of the phenomenon. Field notes and memos were analyzed separately for emerging themes as well.

Trustworthiness of the study

According to Lincoln & Guba (9), trustworthiness of a qualitative study is enhanced by certain operations dealing with the required criteria. The researcher of this study had been consistently engaging in many aspects of primary pharmacy care for more than five years. To ensure the credibility, triangulation of significant information from three different sources of data was undertaken to make the description of essence. In the study, two authors analyzed the data independently and compared emerging themes together until a consensus was reached. A summary of the interviews was sent to the informants to confirm their perspectives. Although the number of participants was limited, their descriptions were rich and insightful.

Results

Three prominent themes emerged from the data analysis portraying the situation of how pharmacists in Thailand involved insightfully in primary health service functions and developed their professional roles in community. These were (1) Primary care pharmacists in the midst of conceptualization, (2) The existing roles of pharmacists in primary care, (3) Future prospect of primary care pharmacists. This study consecutively revealed what the roles pharmacists performed in primary care in each situational context.

Primary care pharmacist in the midst of conceptualization

Primary care in the context of pharmacy practice seemed dynamic and context dependent even

though there was a well-defined what primary care was in the healthcare system. This study found that it was difficult to consolidate the boundary for pharmacists when practicing the primary care roles. According to HPE1, the primary care job was not officially assigned in the National Health Service system.

"...pharmacists in many workplaces do primary care...ok...it may not be clearly determined whatever the boundary is, but most of pharmacists in government-own hospitals today accept that they must do the job" said HPE1 and added, *"it is not a commitment that you must have a position but the job (primary health care) needs pharmacist to do"*.

"The problem is that pharmacists do not know what to do in primary care settings...don't know what the role or duty is" (PP7) *"There are so many problems in home care services, nobody is available to go visit patients at home and pharmacist is an alternative to go"*

The phenomenon of how a pharmacist initiated a primary care role was a typical voluntary happening when there was a chance for thoughtful pharmacist to meet patients in community.

"I never know what it is...I have no concept, the beginning point occurred when a nurse at PCU persuaded me to join home visit with her..." *"I have never been taught, I must learn everything by myself from working and I enjoy it."*(PP3)

"Everything I do, I do what are needed,..., it's the need of healthcare system from a pharmacist when I critically think about, then I try to do whatever it works" (PP2)

In this study, evidences showed that the practicing pharmacists could ordinarily see drug related problems in community at the first glance when they had a chance to contact a patient over there; however, their roles did not limit in the boundary of pharmacists' traditional function. A few challenges emerged from the events when the pharmacists attempted to fix the

problems, and they learned various new tasks to mitigate patients" suffer from their illness or even facilitated good health and sustainable process in community.

"Don't fix that we only do about drugs...but other activities we may learn from team to make the health picture clear in community" (PP6)

"We (pharmacists) are supposed to learn from other professionals" basic practices...medical recording, some wound dressing, measuring blood pressure ..." (PP1) *"Warfarin clinic at SDHPHs is always crowded with patients; I need to help nurse in finger puncture for blood INR check"*.

From the experiences of pharmacists who involved in primary care jobs, these were the events which often occurred in community and they could barely avoid doing some health practices across the professional boundary.

"Health professionals including pharmacists who work for primary care must have basic skills such as patient health assessment, and basic skills mix of four key professionals—physician, nurse, pharmacist, and physical therapist—to compensate each other in primary care task" (PP2).

"Pharmacists must do holistic care for patients as a primary care, meaning that we must work as inter-professional, not only by ourselves" (PP7)

The concept—what primary care pharmacist's role is—was explored and illustrated by the mentioned significant statements. This concept was supported by the quote from a top policy maker in public health of the country,

"The body of primary care consists of—not only serving healthy individuals, but also serving and facilitating ill individuals of all levels illnesses by integrating the tasks for health: education, services, protection, and management" (HPE2)

Existing roles of pharmacists in primary care

Nevertheless the ongoing dialogues of what was the certain job of primary care pharmacy and how it could be officially recognized, the pharmacists' roles were existent in primary healthcare system providing healthcare services for individual patients, their families, and community as a whole. From the data analysis, the existing roles were categorized into four areas: 1) professional care practitioner, 2) disease manager, 3) role of empowering community's health capability, and 4) community drug logistics supervisor.

Professional care practitioner

This is the most important role that all informants consensually mentioned. Pharmacists should be dominant in taking care of drug use and be a part of multi-professional healthcare team providing proper primary care services. Giving pharmaceutical care for chronic patients at home happened to be a key role of pharmacists. Accordingly, drug use assessment and solving drug-related problems in all dimensions was necessary. The role of professional practice, quoted by PP2, was:

"Not only... drug-related problems as we had been taught from our schools that pharmacists should deal with, but also drug-related suffering of patients and caregivers we have to solve".

Moreover primary care pharmacists must prepare for more complex events which patients could not access appropriate care.

"There was a cancer patient when we did home visit. The patient was on chemo, and morphine... and we experienced another patient with HIV, on NG tube and CKD" (PP3).

Almost all informants who had experiences of practicing in community agreed that patients with severe chronic diseases were commonly found in remote community waiting for helps at home. To depict the happenings, informants gave examples: last stages

cancer patients and on using morphine, HIV patients with CKD in various stages, heart disease with warfarin use, TB patients with DOT treatment, kidney impaired patients, and psychic patients (PP1, PP2, PP3 and HPC3).

Disease manager

Disease manager was another role emerged from the study. The term 'disease manager' was an initiative term from the data analysis. Primary care pharmacist was supposed to be a best choice to do the role of bridging and coordinating health professionals and others to facilitate patients suffering from chronic diseases to access health services from their home in community.

"For patients with chronic illness and last stage palliative care, I think that public health personnel can help in a limit extent, but the expertise of these persons may not as good as pharmacists" (HPC1)

"We must accept that physician, in real situation, has some barriers in going to serve patients in community not only the limit amount of time, but also the flexibility of professional practice" "nurse and physical therapist also have barriers, pharmacist is the most flexible." (PP2)

From the data analysis, there were concrete events evidencing the pharmacists' role called disease manager. 1) According to PP5, there was a hospital pharmacist who formed a team of pharmacists from Provincial Public Health Office and local drugstores to improve safety of drug use and healthy lifestyles for kidney impaired patients in the community. They helped each other in home visits to collect data, discussed and shared knowledge. Patients were referred back to their homes and were supported with medication refill from drugstores nearby. This project was expected to foster a promising drug compliance from patients, reduction of DRPs, and cost saving.

2) Another event was told by PP2 that meeting a psychiatrist was nearly impossible for psychic patients

in community because of scarcity of psychiatrist. He appointed a psychiatrist and gathered 15 psychic patients per month for treatment. The outcome of the operation was an appropriate use of drugs in these patients which consequently helped relief the caregiving burden of community. The informant explained how pharmacists did as a disease manager for complex diseases in primary care. Schizophrenia was one of the examples of complex diseases that needed multi-years of medication and continual care. These patients could stay at home if they were stable. Pharmacists were the health professional of choice to arrange a practical plan for a comprehensive care and doctor visits for patients. They helped arrange referring very ill patients back to their home, and sent neglected patients back to their families.

“Morphine and psychotropic drugs are in high risk category...I see that palliative care patients want to die at their home...taking morphine back to treat patients at home is terribly difficult” (HPC2).

The need of comprehensive practice in remote community was agreeable among the informants in this study and holistic healthcare from multi health professionals was hardly avoidable. Pharmacists had a proof that they were helpful in connecting between patients, physicians, and other healthcare providers, providing sufficient patients' information and other related data to support physicians in medical therapy.

Role of empowering community's health capability

The roles of pharmacists in primary care seemed to confine to a mission of facilitating patients in community to access their needed health services and strengthening individuals to cope with their health problems. In this study there was another important emerging role which was active and concurrently supported by policy makers of public health.

An informant (PP4) confirmed with exciting mood, *“Community empowerment—yes! It is*

pharmacist's role—empowers community to be self-reliance as much as possible”

“It must be designed as far as patients can help themselves, be sustainable, and walk further...” (HPC1).

“Primary care is what we call the issues of health self-care and help each other caring one's own health by communal way” (PP4).

This study found three emerging tasks of pharmacists were meaningful in empowering community's health capability.

1) Health education was an important measure to empower community. Patients at home could be troublesome and cause burden to people around them, especially to family members who were supposed to do caregiver task. An experienced primary care pharmacist who worked closely in community said,

“I found a patient with creatinine 6 or 8...and denied to do dialysis. His son utters some words that shocked me, he said dialysis would make his father died sooner.” “But I think I understand him, whenever the patient had peritoneal dialysis...there would be a possible death threatening infection for his father because of bad hygiene” (PP3)

“As a pharmacist, the most important role is provision of medication. The question of how we can empower the patient family to acquire caregiver capability is essential, and we are just a coach or advisor” (PP3)

“The vision of policymaker for primary care was directed to improve population health with less dependence on drugs, and use drugs appropriately when necessary. People with self-awareness in drug use were appreciated” (HPE2)

2) The role on consumer protection in community was mentioned. People in community not only patients but also healthy individuals were suffered from inappropriate consumption of food and drugs. Informant (PP4) proposing risk manager role, urged

pharmacists to lead community to be concerned and learn about the threats for health products surrounding them. Consumer protection in community was claimed as an indispensable role for pharmacists in community. Pharmacists sometimes coordinated with local administration in order to operate a health promotion campaign.

“We want pharmacist to create a new belief in consuming drugs or health products...community people are lack of correct knowledge, for example, energy drinks, white face cosmetics” (HPC1)

3) Local herbal medicines and Thai traditional therapy had been used by Thai people in communities for a long time to relieve their illnesses. This study found a concrete belief, among the informants, in these alternative treatments for primary care; even though there was no clear scientific proof. An informant (HPE2) gave a strong sense of support,

“Primary care is an issue of self-care and being healthy by one’s own by the communal way...it’s one solution for health problem in Thailand because we have started from this way (Thai traditional medicines) by helping each other—frankly speaking, by trials and errors but for long time” “It was established as a treatment modality, even though there was no full scientific proof”

He urged pharmacists to promote herbal use within the community, he insisted that our country had lost a big opportunity in using herbal medicines.

“Traditional Thai medicines or Thai ways are community’s equity...when pharmacists came in and assured the value of these things, we helped accreditation the knowledge of community” said HPC1.

There was another quote strongly supporting the use of Thai herbal medicines in primary care service,

“Pharmacists working for community must help promote the use of herbal medicines, currently the

National Committee for Drug System Development views that herbal medicines help reduce cost of medication” (HPE3)

Community drug logistics supervisor

The official role of pharmacists in serving community at SDHPHs was to provide medical supply to local people. The pharmacists were responsible for assuring drug logistics—right drug to the right person in good quality condition.

“We oversee drug inventory management and dispensing; we look at first-in first-out of drug stock, and work on stock cards...all of those: fill the stock, pack, double check with family folder and dispense drugs to patients”

“It is really one of our major tasks to supervise nurse and health personnel, to do double checking on drugs before dispensing to patients...to prevent medication errors” (PP1)

Narcotics drugs like morphine and psychotropic items were an issue of difficulties for drug logistics in community and caused suffering in palliative medication at home.

“There is no Morphine stock in community hospital; patients cannot access this drug for pain management at home” (PP8)

Future prospect of primary care pharmacists

Our findings reflected expectations of future roles for pharmacists to perform in primary care. Informants believed in the potentials and characteristics of pharmacy professional and proposed two directional themes pursuing sustainable healthy community and role expansion covering rural and urban communities. The roles were expected to be proactive and capable to work in an integrative approach as a change agent for health in order to produce self-reliance communities that were able to sustain their good health by their own. The change agent had to integrate work of five healthcare

duties—promotion, protection, therapy, rehabilitation, and consumer protection—according to HPE2. Primary care pharmacists were then supposed to commit both the roles of professional specialist and health coordinator (PP4). There was other convincing intention to strengthen primary care in urban community. The role concept of family pharmacists emerged from the data analysis elaborating the role could be enriched and expanded. The belief was the success of systematic approach to patient caring.

'We try to tell pharmacists to look at a bigger picture (when do home visit), you must be sure that you do not visit only 30 DM patients...that's all, but you need to change your view to visit 30 families,..., this is a clearer focus' said HPE1.

The "family pharmacists" concept could articulate a new territory of pharmacy practice where the overlapping roles of primary and specialized professional care were combined to serve patients at homes. Family pharmacists were possible to serve urban community (PP4).

The prospect of primary care pharmacists was brightened up, but there were needs of consolidation among bodies of authority to launch official job positions for this health professional to perform effectively for health system.

Discussion and conclusion

This study generates realities delineating pharmacists in a new health territory of tasks that pharmacy professional is performing to contribute better and more beneficially to society right in the place where people live or "community". The findings unfold how pharmacists have created their own ways to serve patients better in community by the concept of comprehensive and continuing care. Their thoughts are beyond the boundary of traditional pharmacy professional functions of medication supply and supervision of drug usage. 'Disease manager' and

'change agent' empowering community's health capabilities through health education, consumer protection of food and drug usage, and promoting local herbal medications as essential alternatives for healthcare are the list of emerging roles embedded in the current professional practices and proved beneficial to community. This role concept can match nicely with the primary care concept suggested by WHO since it facilitates community self-reliance for health and promotes a safe health environment at the first place to protect individuals from becoming ill or worsening health condition. This study scrutinizes and elicits the perception of how pharmacists attain primary care roles in such a dynamic context of community in Thailand; other than simply spells out what the roles are. This helps illustrate how to perform the roles successfully in the real situation of community. Typically, what pharmacists perform to serve primary care in health system is defined as "task" of primary care in community (10) that includes the following aspects: 1) managing drug supply for community, 2) drug dispensing and drug use counseling, 3) continuing pharmaceutical care for patients and their family, and 4) consumer protection. The tasks are then enumerated into operational activities with key performance indicators.

Role development is a highly changeable and complex process depending upon many factors especially human factors and socialization process—networking, mentoring—in healthcare environment (11). In this study, the findings reflect the value that pharmacists bring to patients' health care teams in addition to the tasks. They learn and develop how to practice more beneficially in certain circumstance from their professional expertise and with their intention to contribute more for patients. The findings are clear evidence that pharmacists have already established their roles in the area of primary care in health system of Thailand, and the roles have extended reflecting their attitudes and values in every aspect of the typical tasks. The ongoing prospect of primary care roles opens up

the chance for thoughtful pharmacists who come to work closely with patients in community—exemplary initiations for health improvement and wellness are definitely possible. This new role of pharmacists in primary healthcare system is substantially recognized by health profession leaders in higher level of public health in Thailand. The results of this study help support pharmacist's professional role of primary care to be eligible and officially approved in the nationwide public health system. The finding evidences the effective tasks of pharmacists, not only a concept but also realistic ways of operation, in providing rational and safe use of medication, and enhancing the access to medicines of chronic patients in community. This elicits indispensable clues for both the practicing pharmacists who intend to serve primary care, and the policy makers—MOPH, NHSO—to move forward to set up a formalized and structured framework of practices in primary care to help strengthen and nurture the role of pharmacists in the long run. The long-term prospect of primary care might not be that vivid for the leading health professional like physicians in the United States, evidenced by the growing unhappiness of patients with their primary care experience (12) as the growing set of demands placed on primary care exceed the limit of human capability to provide the best care for every patient. It is the time to launch official positions for pharmacists in primary healthcare to fill the gap in rational use of drugs in community and enhance a fruitful impact on the needed nationwide population wellness. However, the roles of pharmacists in primary care have been developed volitionally based on individual pharmacist's perception. Primary care pharmacists' abilities and characteristics need to be clearly defined in accordance with the required responsibilities and obligations in order to develop a firm grounded career in the future.

The Pharmacy Council of Thailand is expected to be a key mechanism to formulate official standard of practices and training programs for future primary care

pharmacy professionals. The role concept of primary care pharmacists from this study elicits an indispensable guide to further steps of actions for involving stakeholders to fulfill the gap of health professional capacities and develop effective primary healthcare of the country.

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