การสร้างคุณค่าในงานของเภสัชกรโรงพยาบาลในจังหวัดน่าน: การวิจัยเชิงคุณภาพ **Enriching Work Value among Hospital Pharmacists in Nan Province: A Qualitative Study**

นิพนธ์ตันฉบับ

Original Article

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วารสารไทยเภสัชศาสตร์และวิทยาการสุขภาพ2564;16(3):195-202.

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บทคัดย่อ

วัตถุประสงค์: เพื่อศึกษากระบวนการสร้างคุณค่าในการทำงาน และบริบท แวดล้อมที่สนับสนุนให้เกิดการสร้างคุณค่าในการทำงานของเภสัชกรโรงพยาบาล

ในจังหวัดน่าน วิ**ธีการศึกษา:** การวิจัยเชิงคุณภาพ โดยการสัมภาษณ์เชิงลึก เภสัชกรที่ปฏิบัติงานอยู่ในโรงพยาบาลของรัฐ ในสังกัดสำนักงานปลัดกระทรวง สาธารณสุขจังหวัดน่าน อย่างต่อเนื่องเป็นเวลาอย่างน้อย 5 ปี และได้รับการ ยอมรับทั้งในระดับจังหวัดและระดับประเทศในการพัฒนางานในวิชาชีพเภสัช กรรม เก็บข้อมูลระหว่างเดือนกรกฎาคม 2561 ถึง มกราคม 2562 การวิเคราะห์ ข้อมูลใช้การตีความและให้ความหมายข้อมูลเชิงคุณภาพ ผลการศึกษา: เภสัชกร มีวิธีการสร้างคุณค่าในงานดังนี้ 1) สร้างบรรยากาศการทำงานที่มีส่วนร่วม 2) สร้างบทบาทของเภสัชกรให้เป็นที่ยอมรับ และ 3) ขยายบทบาทในการทำงานของ เภสัชกร ซึ่งผลของงานที่เกิดขึ้นเป็นสิ่งที่แสดงสะท้อนกลับไปถึงคุณค่าในงานของ เภสัชกร เภสัชกรสามารถสร้างคุณค่าในงานโดยการตระหนักถึงบทบาทความ รับผิดชอบของตน พัฒนาตนเองอย่างต่อเนื่อง สั่งสมประสบการณ์การทำงาน มี ทักษะการสื่อสารประสานงาน และ ทัศนคติด้านบวกต่อการทำงาน ทั้งนี้บริบท แวดล้อมการทำงานเป็นทั้งสิ่งสนับสนุนและสิ่งที่เป็นอุปสรรคต่อการสร้างคุณค่าใน งานของเภสัชกร สรุป: เภสัชกรมีส่วนสำคัญในการสนับสนุนการสร้างคุณค่าใน งาน ด้วยการสนับสนุนของผู้บริหารองค์กร เพื่อให้เภสัชกรสามารถสร้างงานที่มี คณค่าและมีประสิทธิภาพ เป็นประโยชน์ต่อองค์กร ระบบสขภาพ และผ้มารับ บริการ

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Abstract

Objective: To explore a process that hospital pharmacists used for enriching their work value, and to describe supporting environmental contexts. Method: This qualitative research used an in-depth interview with pharmacists working in public hospitals under the Office of the Permanent Secretary for health in Nan province for at least 5 years and gaining professional recognition in either provincial or national level. Data collection was conducted between July 2018 and January 2019. Data were analyzed through interpreting and giving the meaning of qualitative data. Results: Hospital pharmacists had enriched their work value through the following processes: 1) creating a coherent work environment, 2) establishing roles of pharmacists to gain public acceptance, and 3) expanding new roles of pharmacists as a drug system manager. Outcomes of the works would exhibit as value of pharmacists' work. Pharmacists enhanced their work values by taking responsibilities on professional works, continuous professional development, learning from work experience, having communication and co-operation skills, and having positive work attitudes. Several environmental contexts were barriers and facilitator for enriching work values. Conclusion: Pharmacists themselves are key factors in creating value of their work with supports of superiors and colleagues. Having professional work values would increase job satisfaction and work outcomes for benefits of patients, organization, and healthcare systems.

Keywords: work values, pharmacist, public hospital

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Introduction

Pharmacy is a medical profession with a broad scope of medicines.1 practice regarding The Pharmaceutical Profession Act (2015) of Thailand defines "pharmaceutical profession" as the profession involved in drug preparation, production, invention, selection, quality control and quality, prescription preparation, dispensing, and selling. It also includes providing pharmaceutical care and consumer health protection activities.2

According to the Public Health Information Report of Thailand in 2015, there were 8,773 pharmacists working at hospitals under the Ministry of Public Health.³ They are key health workforce for Thai healthcare. Due to the changing needs of the country's public health system, roles and duties of pharmacists are diverse regarding their working environment. Under circumstances. hospital current pharmacists faced many challenges including have implementation of hospital accreditation standards, pharmacist's competency framework, several government policies and initiatives that encourage higher quality of care while engaging better patient involvement. Therefore, roles of hospital pharmacists have shifted and expanded to pharmaceutical care and promoting consumer's ability to use medicines and health products rationally.⁴ Consequently, needs for pharmacist workforce have increased qualitatively and quantitatively.⁵ Under the increasing needs, the number of pharmacists in government hospitals remains constant.⁶

Problems with shortage in pharmacist workforce occur in many areas, including Nan province, which is a remote province close to Laos broader. Its surrounding landscape is steep valleys within mountains, which takes time to travel between districts. An average number of people receiving healthcare services increases every year. Government hospitals serve not only Nan people, but also Laotians living nearby. Thus healthcare personnel, including pharmacists have heavy workload in caring for their customers. From these geographical factors, problems of workforce shortage and turnover could be solved not only by improving availability and distribution, but also enhancing personnel's quality by enhancing workforce's competency and work value.

Perceived work value leads individuals to create valuable works. The perception of performing a meaningful work has positive relationship with job satisfaction, job retention and workforce development. Value in work stems from capability to apply knowledge and abilities in performing their work. It results in success, pride, and meaningful work outcomes. Helps reducing psychological stress and improve satisfaction. Herefore, enabling pharmacists to recognize the value of their work and value of themselves would lead to job satisfaction, resulting in better patient care and public health services.

Several factors contribute to perceived value of work. First factor is related to job characteristics. Individuals whose work exhibits variety of skills, significance of work, autonomy and identity in tasks, and constructive feedbacks are more likely to perceive more value of their work. Additionally, personal internal factors, such as competencies, experiences, and working contexts affect the perception of value in the work and the creation of value work. With combination of job characteristics, personal factors, and surrounding context, a person develops perceived work-value, and value of work. ¹² Moreover, the value of work can be estimated from the results of work and also make the person perceive work value. ¹³

Shortage and turnover of pharmacist manpower in Nan might be a factor contributing to discontinuity in development

of professional jobs and responsibilities. However, under this manpower constraint, there are some pharmacists who have been working at Nan, and continuously improve professional work with high spirit. This study aimed to explore a process that hospital pharmacists at Nan used for enriching their work values and to describe supporting environmental contexts. Evidence gained from this study would be useful for workforce management in remote areas. Enriching pharmacists' work value would impact workforce retention, job satisfaction, and professional development.

Methods

This qualitative, descriptive research used the case-study approach. By interpretation and explanation on the meaning of enhancing work values according to the experience of hospital pharmacists at Nan province, the researchers developed an in-depth understanding of the issue from those practicing in difference settings and responsibilities. Study protocol was approved by the Human Ethics Research Committee of Nan Hospital on January 11, 2018 (IRB Approval No.008/2561).

Key informants

The study's informants were pharmacists who had been working in public hospitals under the Office of the Permanent Secretary for Health in Nan province, including one general hospital and 14 community hospitals. Informants were selected by a purposive sampling with snow-balling techniques based on the following inclusion criteria. Informants had to be working in the same hospital for at least five years, had positive attitude in pharmaceutical works, and received a work awards or received an appreciation from colleagues or patients at either provincial or national level. For instance, they received an award as an outstanding pharmacist from a professional organization or an outstanding alumnus from a university.

The list of potential informants was identified from a senior pharmacist at Nan Provincial Health Office who had been working collaboratively with hospital pharmacists throughout the province. To ensure to recruit informants with maximum variation, the researchers carefully selected informants with different work characteristics that were available in all hospitals such as pharmaceutical system management, patient services, pharmaceutical care, and

community care. Factors of hospital type, gender, length of work and education were included as selection criteria to ensure validity of the findings. Researchers collected and analyzed data from each of the pharmacist key informant until the data were saturated.

Instruments

To ensure the data validity, the main researcher (CR) grained expertise in qualitative research by taking class in qualitative research and conducting a series of mock interview with three pharmacists working at Nan Hospital. A semi-structured interview was used in the study. The interview guide was a list of open-ended questions developed from literature review about work value12,13, classified into broad questions that seek the understanding about enriching work value of hospital pharmacists in Nan. In this study, enriching pharmacist's work value was defined as the recognition of pharmacists about value in their work that was valuable, meaningful, challenging and indicating the success. They realized the importance of their work and wanted to dedicate to the work. Examples of key questions in the interview guide were "Could you explain about the meaning and the importance of your work?," "In your opinion, what make your work valuable, meaningful and important?," "Could you please identify factors that affect the success of your work?," and "Who or what is helping you to complete your work? And how?" The interview guide was validated by three experts in the field of research methodology and pharmacist workforce. Additional data collecting tools were a voice recorder and a field note.

Data collection procedure

Data collection took place between July 2018 and January 2019. The researcher made an appointment in advance by telephone in which the informants determined the date, time and location. Most of the interviews were conducted in their hospital. Each interview took approximately 1-1.5 hour. In addition, non-participatory observation was used by following the pharmacist informants to their workplace, observing their interactions with others, and interviewing their co-workers. Besides gaining consent, the informants were asked for permission to record the voice, talk to co-workers, and make note before each interview. After each interview, the researcher took field note for recording her observations.

Data triangulation consisted of interviews, non-participatory observations and field notes. At the end of each interview session, the researcher summarized the main contents of the discussion, and asked the informant to verify it. The saturation of data was reached when no new information was gained from the eighth pharmacists.

Data analysis

All data were written by verbatim transcriptions and field-notes. First the researchers read throughout the transcriptions to gain familiarity with the data. Then, content analysis was used by categorizing data into themes, defining meanings and relationships between themes, and interpreting the finding based on the process of enriching work value, and environmental contexts that support the creation of working value. The research team discussed on the findings until the agreed conclusion.

Results

Key informants were eight pharmacists, five of them working in Nan general hospital and three working in community hospitals. Their main responsibilities were in pharmaceutical system management, patient services, pharmaceutical care, and community care. Results of the qualitative research are presented in three issues, including process of enriching pharmacist's work value, supporting factors and barriers for enhancing work value among hospital pharmacists. Figure 1 summarizes key findings of this study.

1. Process of enriching pharmacist's work value

Pharmacists developed their value in work through their perception and experience in work. Three processes of developing value in work extracted from this research were 1) creating a coherent work environment, 2) establishing roles of pharmacists to get public acceptance, and 3) expanding new roles of pharmacists.

1.1 Creating a coherent work environment

From the study, informant pharmacists recognized the importance of creating co-operative working atmosphere among colleagues. It was achieved by engaging everyone to participate in community events or professional works. That allowed everyone to share the same goal and perceive value of the work together.

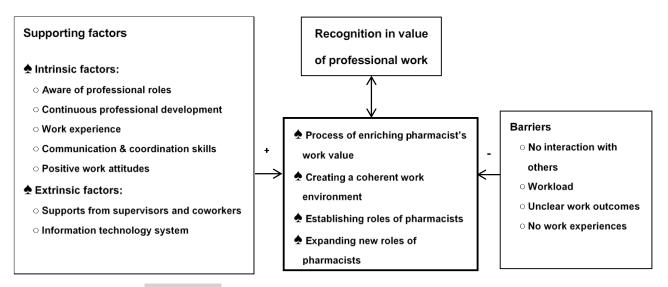


Figure 1 Key elements in enhancing hospital pharmacists' work value.

To create value in work, we started with creating a working atmosphere. Regardless of works, positive environment and shared value must be there then the energy will spread outside. We must create a happy working place. Then, people will understand what we want and why we do what we do" (Pharmacist A)

"Sometimes our work is very specific. But if we bring other people to work together, everyone will understand the work and understand its value as well." (Pharmacist B)

1.2 Establishing roles of pharmacists to get public acceptance

Pharmacists gained an acceptance and trust by providing professional services that help improving quality of care regarding drug-related issues. These were needs of multidisciplinary healthcare team. Pharmacist informants highlighted that professional services should go beyond drug management and dispensing at pharmacy department. It should include other responsibilities that pharmacists had to work coordinately with team both inside and outside the hospital.

"We are a physician's or nurse's assistant. We do not the one who makes decisions. Our responsibility is to inform about possible alternatives. We have to integrate all the information together. We have to apply our knowledge and suggest possible solutions regarding medicines, even they may or may not listen to us." (Pharmacist C)

"What will make them see and accept our role, I think, it's about our works and quality of work. Our works and

outcomes should be presented to the public or to make them realize that that they can't work without us" (Pharmacist E)

1.3 Expanding new roles of pharmacists

In the past, an image of a pharmacist was often seen as someone working just in the pharmacy or pharmaceutical department. To gain better recognition of work, pharmacist informants expanded pharmacist's roles and responsibilities to other departments in their hospital and to communities outside the hospital. By working with larger groups of people, pharmacist's works got easier accepted and recognized when they initiated new works. Consequently, they perceived value in their works.

"In warfarin case, we (pharmacists) walked into the ward to learn what we can help. There was one case, the doctor called us to help with a swinging INR with bleeding. We found that after an order of dose adjustment, a nurse gave a dose of warfarin to the patient, after that the caregiver who regularly prepare medicine for the patient gave another dose to him. That's it!" (Pharmacist D)

"Our pharmacist is good at many things. We are in hospital academic team, accreditation team, and even fundraising team. At first a newcomer pharmacist might hesitate to work on un-pharmacy professional things. But they would later realize that these additional roles would help us to get better recognition with the team. We can do more after that." (Pharmacist H)

2. Supporting factors for enhancing work value

The findings revealed factors that support hospital pharmacists at Nan enriching their work values. There were

intrinsic and extrinsic factors. Intrinsic factors included aware of pharmacist's professional roles, continuous development of pharmaceutical knowledge, work experience, communication and coordination skills, and positive attitude towards work. Extrinsic factors included supports from supervisors and administrators, positive relationship with coworkers, and supportive information technology system.

2.1 Intrinsic factors are influential elements embedded within individual pharmacists which help develop work values among hospital pharmacists.

2.1.1 Being aware of pharmacist's professional roles as a drug system manager

Awareness of professional role as a drug system manager, which is not limited to caring for individual patients, but including administrating and improving of hospital and community drug systems for rational use of medicine, allowed pharmacists to develop their works beyond the traditional tasks. Findings from this research shown that most pharmacists did not aware about the role of drug system manager prior to their work since pharmaceutical care were the focus of pharmacy curriculum. Therefore, in general pharmacy graduates were unaware of their works in drug systems. However, they learned about this responsibility by themselves while working. With a broader perspective on professional works beyond dispensing, they realized that these initiatives helped strengthen work values of pharmacists.

"I used to picture myself sitting in a square room of pharmacy, dispensing medicines for out-patients in the morning, and preparing medicines for in-patients in the afternoon. If you are satisfied with this, it's okay. But for me, I have so many responsibilities. It is not what I have pictured. In addition to dispensing, I am assigned to other responsibilities as new policies were implemented. There are many things, such as active surveillance, community development, disease prevention, and so on. We (pharmacists) have many roles, not just dispensing in a square room." (Pharmacist H)

2.1.2 Continuous development of pharmaceutical knowledge

From this study, pharmacist informants agreed that developing pharmacist's work value required confidence in professional competencies. Skills and knowledge gained from pharmacy school served as minimal requirements for basic tasks. To develop a work, additional and applicable knowledge and skills specific to the work were essential. Therefore, continuous professional development was important for enhancing work values.

"I think we have to continue learning. Every day, there are new medicines coming, ... new trends, new guidelines. It is our responsibility to keep updating ourselves to the changing world." (Pharmacist C)

2.1.3 Work experience

In addition to professional competencies, experience in working with others supported pharmacists to develop their work value. While working, they learned to understand others and to deal with emerging problems, effectively. By these experiences, they gained confidence in their works and achieved value in works.

"In working, we have to work with many people from many departments. This helps us learn about many different systems. So, we see things from different perspectives. We understand other points of view, why they do what they do." (Pharmacist A)

2.1.4 Communication and coordination skills

Hospital pharmacists mentioned that to gain professional recognition and value in work, they worked as a team member in many hospital activities, not limited to only drug issues. They had to communicate and work coordinately with diverse agents, both in and out of the hospital, in order to achieve work targets.

"The heart of working is human relationship. Communication and interaction are essential for get our works going. Communicating with people above, below, and in the same level would help to get our work done easily." (Pharmacist E)

2.1.5 Positive attitude towards work

With good attitudes at work, pharmacists felt engaged to work through their routines, and to improve their work. It could be observed that if they were happy with their work, they wanted to work well and efficiently.

"For every task, we must think positively toward it. That helps us want to work on it and get good results. Thus, we must see values in our works, otherwise we don't want to do it." (Pharmacist B)

2.2 Extrinsic factors are influential elements that come from outside. They are uncontrolled by pharmacists, but directly affect pharmacist's work achievement and work values.

2.2.1 Supports from supervisors and hospital administrators

The study findings revealed that with supports and cooperation from supervisors, leaders, and administrators, pharmacists could achieve their work targets, better systems, and outcomes. That would enhance pharmacist's work values.

"In many cases, the tasks are beyond our responsibilities. Supports from hospital administrators help open door. We, later, could ask for contact and co-operation. It makes our work easier." (Pharmacist H)

2.2.2 Positive relationship with coworkers

Pharmacist informants highlighted importance of good teamwork. Having positive relationships with coworkers led to happiness and satisfaction in work, resulting in job retention. A good team would help solve problems and gaining achievement in works.

"It's clearly a team. A team of hospital personnel who work well together. I am lucky that I have good pharmacist team. We understand the same health targets and share the same working goals." (Pharmacist F)

2.2.3 Supportive information technology system

Implementing information technology in pharmaceutical system operation allowed pharmacists to expand their works successfully. Pharmacists employed information technology to support rational decision-making, minimizing errors, and reducing work time.

"Information technology and computer applications are very helpful. For example, a warfarin's application helps us make better decision. It helps us give better patient care." (Pharmacist G)

3. Barriers for enhancing work value

Everyone encounters difficulties in work and barriers prior to achieve expected goals. This research found that barriers for achieving work outcomes, for informant hospital pharmacists, were lack of interaction with others, pharmacist's workload, unclear work outcomes, and lack of work experience.

3.1 Lack of interaction with others

In the key informants' views, pharmacists in general gained no work value due to lack of interaction with others, both within and outside pharmacy department. Working with administrators, physicians, multidisciplinary team, and others gave opportunities for pharmacists to present their works and capabilities of pharmacists in managing drug systems. Therefore, being reserved and having no interaction with others was a barrier to gain professional recognition.

"You cannot work by yourself. Drug systems development needs the help of others. However, new generations of pharmacists seem not interested in working with others. If we avoid talking with co-workers because of disagreement on something, it would be hard to talk with other people from other departments. Without interactions with others, it would be hard to get acceptance from administrators and multidisciplinary team. This would be a big barrier for developing works." (Pharmacist A)

3.2 Pharmacist's workload

With heavy workload, pharmacists spent most of their time managing routine tasks, and no time to develop and improve new tasks that would serve emerging needs of the multidisciplinary team and customers. Heavy workload also led to boredom, dissatisfied in work and burnout.

"Actually, we are overwhelmed by our routine works. It limits us to take care of other responsibilities. When you are away from it, it does not feel like our job. People also do not perceive that it is ours." (Pharmacist D)

3.3 Unclear outcomes of pharmacy work

From outsiders' perspective, pharmacist's responsibilities involve only preparing and dispensing medicines. They rarely perceived pharmacist's role as drug systems manager which is a foundation for delivering excellent healthcare services. Strengthening drug systems need collaboration from physicians, nurses, and other members. Therefore, it is seen as group efforts rather than individual achievement. Unaware of being a part of this bigger system, pharmacists might focus extensively on their own works, fail to achieve these systems' goals, and discourage form work.

3.4 Lack of work experience

Informant pharmacists viewed that some pharmacists had difficulty working with others. Newly graduates focused

more on hospital services, but less on community work and drug management system. Limited scope of professional works and lack of experience limited pharmacists to extend their roles and responsibilities.

"I think most pharmacists have difficulties in working with others. In college, we hanged out with same people in the same age. We rarely work with others. Although, we had some trainings in a hospital but it's just a short period. After graduation, we only worked in the department. I wish there were more opportunities for interdisciplinary trainings, where pharmacists learned to work with other. So, after graduation, they have skills in working with others." (Pharmacist B)

Discussions and Conclusion

This research findings revealed that hospital pharmacists gained work value through recognition of success in works under their responsibilities. Realizing that they were working on valuable works, they were motivated, resulting in achieving expected work outcomes. These findings are concordant to concepts of work values^{9,12}, stating that a person with identified work value would find motivation on work and satisfaction in work, and work effectively. Consequently, they would feel attached to the organization and retain in work.¹³

In this study, hospital pharmacists enhanced their work value through their work experiences by these following processes; creating a coherent work environment, establishing roles of pharmacists to get public acceptance, and expanding new roles of pharmacists. In creating working environment, pharmacists engaged everyone to work collaboratively. By forming a supportive environment where everyone feels comfortable to work together, they shared goals, and faced difficulties and happiness together. Consequently, they could achieve their shared target in developing better systems and services. This led to value in work. This finding is supported by related literature showing that working environment influences workers' quality of life and effectiveness of work. 14,15

Pharmacists enriched their work value, by gaining public recognition in their works while introducing new roles of pharmacists. Pharmacist gained acceptance in their professional roles through expanding their roles beyond dispensing medicines and managing inventory. Stepping outside pharmacy department and working with others

helped pharmacists gain recognition. Previous research has shown that moving forwards to work in a community make pharmacists realize their values, and improve quality of their works. According to Maslow's hierarchy theory of needs, gaining sense of belonging and sense of esteem are higher level of human's needs. 17

In the findings, awareness of professional responsibilities, continuous professional development, work experience, skills in communication and coordination, and positive attitudes toward works were intrinsic factors facilitating pharmacists to enhance their work values. Additionally, there were extrinsic factors including supervisors and administrators, co-workers, and information technology. These findings support previous evidence on factors affecting pharmacists' work values were internal factors including professional spirit and professional work experience and external factors including organizational policy, acceptance of supervisors, teamwork, and communication. Persons who successfully balanced these factors were more likely to be satisfied and motivated to their works. 14,18,19

The results showed that when pharmacists working by themselves with no interaction with other, they lost opportunities to present themselves and their valuable works. The findings were aligned with previous research on work value of pharmacists, showing that lack of communication and cooperation with multidisciplinary team limited the pharmacist's chance to extend their works. However, heavy workload constrained pharmacists to extend their work beyond the pharmacy. Constraints from workload and unrecognizable works that fail to meet the needs of society would results in job turnover. However, heavy

Although this study demonstrated the work value creation contributing factors and among pharmacists, it had some limitations. Study sample was limited to only those working in public hospitals under the Office of the Permanent Secretary for Health in Nan province. Findings might not be fully applicable for those under different contexts. То develop working recommendations for enriching hospital pharmacists' work value applicable to a broader group of pharmacists, future research in hospitals under other agencies should be conducted. Additionally, findings of this research could be used to develop a survey for a quantitative study to reach a larger group of pharmacists.

Results of this study could be used in promoting hospital pharmacists' work value that would consequently enhance pharmacists' work outcomes. First, professional leaders and department managers should encourage hospital pharmacists to understand the values of their work. By recognizing the goals and values of their work on a patient and a drug system, pharmacists could work effectively in improving quality of their services to gain public recognition. Second, professional leaders and educators should promote a role of drug system manager that pharmacists need to work collaboratively with others to develop and improve drug systems both in the hospital and community, as it helps pharmacists to gain better perceived work values. Finally, leaders in any levels should support pharmacists to participate in multi-department activities to enhance coordination and communication skills, which are essentials for gaining acceptance and recognitions from others. These would enhance pharmacists' work values.

In conclusion, hospital pharmacists enhanced their work value by taking responsibility on the assigned work. With commitment to work, continuous professional development, and engaging to work with multidisciplinary team, they could gain professional recognition towards their work as drug system manager. The process of enhancing work value could be strengthening with supports from supervisors and co-workers. Additionally, if pharmacists could apply the information technology to their works, it would help loosen workload and expand pharmacist's initiatives to meet the needs of the healthcare systems. Enabling pharmacists to recognize the value of their work and value of themselves would lead to job satisfaction, resulting in better patient care and public health services.

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References

 Sub-committee in pharmacy education, the Pharmacy Education Consortium of Thailand (PECT). Past, present, and future of pharmacy education in Thailand (part I). *Isan J Pharm Sci* 2014;10(1):1-15. (in Thai)

- Pharmaceutical Profession Act (No.2), B.E. 2558. (March 26, 2015).
 (in Thai)
- Strategy and Planning Division, Office of the Permanent Secretary.
 Health resources report 2015. 2015. (Accessed on Feb. 3, 2017, at http://bps.moph.go.th/new_bps/sites/default/files/healthresource2558_100160.pdf) (in Thai)
- Ploylearmsang C, Kanjanasilp J, Kessomboon N, et al. Hospital pharmacy practice and the way forward for pharmacy education in Thailand. Can J Hosp Pharm 2019;72(1):34-41.
- Suwannaprom P, Suttajit S, Plodpai P, Prapaso N, Srisuphan V. Pharmacy workforce: a call for professional cohesion to meet the rising healthcare demand. J Health Sci 2020;29(special):141-152.
- Ningsanon T. Rationale and key concepts in the assessment of pharmacist intervention. Bangkok. Pitkanee, 2009. (in Thai)
- The Nan Provincial Office. Nan. 2017. (Accessed on Sep. 4, 2017, at http://www.nan.go.th/webjo/) (in Thai)
- Information Center of Nan Provincial Public Health Office. Nan hospital:
 Patient service receiver report fiscal year 2011 2015. 2016.
 (Accessed on Mar. 22, 2017, at http://203.157.198.57/xoops/modules/mypage/data2558_patient.php) (in Thai)
- Bokemeier JL, Lacy WB. Job values, rewards, and work conditions as factors in job satisfaction among men and women. Social Quart 1987; 28(2):189-204.
- Knoop R. Work values and job satisfaction. J Psychol 1994;128(6):683-690.
- Knoop R. Relieving stress through value-rich work. J Soc Psychol 1994;134(6):829-836.
- Hackman JR, Oldham GR. Work redesign. Massachusetts. Addison-Wesley, 1980.
- Elizur D, Koslowsky M. Values and organizational commitment. Int J Manpower 2001;22(7):593-599.
- Jullasat J, Polprasert W. Factors affecting pharmacist standard performance in community hospital, public health inspection region 6. Isan J Pharm Sci 2012;8(2):60-75. (in Thai)
- Sukonlapuck M, Jaroenloetongdee J, Mitsuparp D. The relationship between job characteristics, organization atmosphere and quality of working life of nurse working at Pra Nang Klao Hospital. *J Health Sci* Res 2011;5(1):32-39. (in Thai)
- Wongnag C, Wattananamkul V. The value of pharmacists: Appreciative inquiry approach. *Isan J Pharm Sci* 2012;9(1):15-31. (in Thai)
- Maslow AH. Motivation and personality. 2nd ed. New York. Harper & Row. 1970.
- Lwandee P, Amrumpai Y. Job motivation and job satisfaction among nurses in Banphaeo Hospital public organization. *Kuakarun J Nurs* 2015;22(1):48-59. (in Thai)
- Herzberg F. The motivation to work. New York. John Wiley and Sons, 1959.