

The Integration of the Applied Thai Traditional Medicine into Hospitals of the Current Health Delivery System: The Development of an Administrative/Management Model

Supalak Fakkham MS*,
Teabpaluck Sirithanawutichi MD*, Vithaya Jarupoonpol MD*,
Pitsamai Homjumpa PhD*, Montri Bunalesniruntr MD**

* Faculty of Medicine, Mahasarakham University, Mahasarakham, Thailand

** Huay Ploo Hospital, Nakhon Chaisi, Nakhon Pathom, Thailand

Objective: Develop a model of administration/management of district/general hospitals in the Ministry of Public Health of Thailand to enable the medical services of Applied Thai Traditional Medicine to be integrated into the current Modern Medical (Health) System.

Material and Method: A prospective study of the various services of Applied Thai Traditional Medicine in relation to the needs of other related services of the hospitals and the health needs of the population of Huay Ploo District Hospital of Nakhon Pathom Province. The collection of data of services covered 12 months to enable the comparisons of changes that occurred during the period. The study was both quantitative and qualitative measures.

Results: There is a statistical difference in all aspects compared of the opinions of personnel related to the services of Thai Traditional Medicine before and after the interventions in the areas of knowledge, attitude, beliefs, and the support of the services rendered by Thai Traditional Medicine. The present study showed that more system diseases was seen before than after the interventions whereas the most common incidence of diseases was in the musculo-skeletal system when compared to those found in other systems. After the interventions, the patients' preferences in the methods of treatment were mixed, with several methods of treatment preferred and with the tendency to resort to Thai Traditional Medicine more than before the interventions. This was believed to be the result of changes in the hospital i.e. personnel from all service units after answering the questionnaires and voiced opinions were found to require more relevant competencies and in need of support from their superiors. The personnel surveyed wished that the planning and policies' goals succeed with efficiency. The Administrators outlined the plan and strategies to move forward. With cooperation to solve problems, should any occur, and with mutual role and coordination of personnel and services, the way towards solving problems should be beneficial as all sides participated in the undertakings.

Conclusion: The management/administration of Government district/general hospitals under the Ministry of Public Health aiming for an integration of all services of Applied Thai Traditional Medicine into services of Modern Medicine in Government Hospitals at the mentioned level was feasible and this undertaking would comply with the National Health Policy and WHO Guidelines. The present research study proposed that the Hospital uses health care services as a 'principal core' and other related sectors acted as supporting/promoting/and facilitating the principal core towards the best practice in health/medical care. The researches wished to label the development of this model as "Huay Ploo Model", which will be a landmark. In addition, the Ministry may want to pursue a similar model as the administrative structures of all hospitals under the Ministry, under the Thai civil service system. The researchers also proposed the set-up of a Centre for Training and Learning within the hospital. It was also suggested that the Hospital should hold regular academic meetings of various forms to strengthen the knowledge, skill, and overall capacity of its personnel.

Keywords: Model development, Applied Thai traditional medicine, Prevalence of diseases, Integration of services, District/provincial hospitals, Interventions, Current health delivery system, Center for learning and teaching, Huay Ploo model

J Med Assoc Thai 2012; 95 (2): 257-63

Full text. e-Journal: <http://www.jmat.mat.or.th>

Correspondence to:

Fakkham S, Faculty of Medicine, Mahasarakham University, Talad, Muang, Mahasarakham 44000, Thailand.

Phone: 081-489-8512

E-mail: Supalak99@hotmail.com

Applied Thai Traditional Medicine is a system of health care based on the pre-existing knowledge of Thai Traditional Medicine, which have existing in Thai culture for a very long time. However, it has been improved and modernized by the addition of scientific principles into its curricula as well as the essential knowledge of Modern Medicine, especially the preclinical subjects (Anatomy, Physiology, Biochemistry, Pharmacology, Microbiology, Pathology, and Pathogenesis), principles of physical diagnosis, and knowledge and practice in clinical subjects. The improvement was to develop and upgrade it so as to show its significance as equal and progress towards modern development of the system of health care of Modern Medicine.

Objective

The present research study aimed to seek for a development model for the health care services of district/provincial hospitals of the Ministry of Public Health of Thailand in integrating Applied Thai Traditional Medicine into other services of the hospitals with satisfaction, efficiency, and effectiveness^(1,2).

Material and Method

Methods of study

1. Questionnaires to the groups of population under the responsibility of Huay Ploo Hospital, Nakhon Pathom Province, covering five communities numbering 1,212 households and 4,632 citizens. Nakhon Pathom Province.

2. Questionnaires to service personnel belonging to the Huay Ploo Hospital.

The construction of the two questionnaires was recommended by three experts in this area and was validated by actual testing for validation with the concerned groups.

3. In-depth interviews of hospital administrator. Community leaders, collection of quality data for village leaders, district subdivision leaders, village administration organization administrators, local municipality leaders, local community leaders, by arranging Focus Group Discussion. Conferences were also arranged aimed at seeking relevant opinions from invited participants to the topics being studied. In-depth interviews were also made to specialists in Modern Medicine and Thai Traditional Medicine including the Director General of the Department of Thai Traditional Medicine and Alternative Medicine, Director of the Institute of Thai Traditional Medicine,

Director of District Hospitals, viz. Huay Ploo, Panom Dongrak and Prapokklao Chantaburi Hospital to seek for advice and suggestions regarding the Development Model as well as future developments considering the appropriateness and reflections on the Model when it was to be applied to the hospitals under the Ministry of Public Health. The researchers then made corrections and amendments to finalize the details before recommending for implementations.

Details of the methods of research study

Phase 1. Preparation Phase

Phase 2. Research Phase

Phase 3. Follow-up, Interpretation and Conclusion of Research Study

Stages of study

1. Population and Sample Size

2. Research Phase

3. Follow-up, interpretation and Conclusions

Population and Sample Size

1. Population of five villages under the responsibility of Huay Ploo hospital were selected for the study and systemic random sampling formula was employed to determine the number of samples to be studied.

2. Personnel of Huay Ploo Hospital totaling 169 persons were also included in the present study.

3. Collection of data, both quantitative and qualitative, spanned for 12 months to ensure completeness of data. The collection of quantitative data surveys of the designated samples were carried out by the researchers and assistant researchers for general information and the health needs of the population.

Analysis of data

1. Quantitative data-Using descriptive statistics to reveal population characteristics viz frequency, percentage, average value and standard deviation, minimum and maximum value, prevalence rate and incidence rate.

2. Inferential statistics-by comparing the differences in knowledge, attitude, trust and support in service of Applied Thai Traditional Medicine of hospital personnel before and after interventions by using Wilcoxon signed rank test.

3. Qualitative data-Analyses of this data using classification of data into various categories according to opinions made and other relevant

categories and various items including meanings and conclusion connecting with the data of other roles so as to enable to draw the results for making hypothesis and conclusions of various stages possible.

Results

1. The needs for health care services of the population. Analysis of 450 samples showed population characteristics. Health statistics and the preference of the methods of treatment.

2. Illness and disease of the studied population could be classified as follows:

A. Musculo-skeletal system-72.1% suffered from pain in the head, neck, shoulder, scapular and chest. 55.3% suffered at the back, waist and hips.

B. Dermatology system-64.0% suffered from allergy, urticaria.

C. Respiratory system-59.3% showed symptoms related to this system, including 62.9% from cough and 24.6% from difficulty of breathing.

D. Gastro-intestinal system-54.1% suffered from symptoms related to this system, consisting of gastric disease 40.7%, followed by constipation 34.1%.

E. Circulatory system-19.4% suffered from symptoms related to this system, consisting of blood dysfunction and syncope 70.4% and purpura 7.4%.

F. Nervous system-23.0%, mostly from stress 16.2%, followed by hemiplegia and hemiparesis 5.1%.

G. Reproductive system-inflammation of uterus 6.2%.

Patients in each group above wanted varied methods of treatment, for example those who complained of symptoms of the musculoskeletal system wanted modern medical treatment (average 56.5%), Thai traditional medicine (48.2%), whereas the proportions of modern medicine to Thai traditional medicine were as follows: those with symptoms belonging to skin disease 46.1:4.5, respiratory system 61.5:24.2, gastrointestinal system 39.7:53.5, nervous system 58.5:6.4, reproductive system 92.3:7.7, common cold and influenza 75.8:34.0. The present results showed that the majority of patients preferred modern medicine treatment more than Thai traditional medicine in the proportion of 61.8: 24.4, indicating that hospitals needed to be well-prepared in offering both modern medicine treatment as well as Thai tradition medicine.

Studies concerning the readiness of hospital personnel showed the following results: competencies:

moderate level (324 persons or 72.0%), very good level (93 persons or 20.7%), receptive personality: moderate level (244 persons or 54.2%), very good level (134 persons or 29.8%), punctuality: moderate level (287 persons or 63.8%, and improvement needed (77 persons or 17.1%).

Concerning hospital equipments and instruments, the results of the opinions surveyed showed the following results: adequate, moderate level (297 persons, or 66.0%), needed improvement (74 persons, or 16.4%), up-to-date level (286 persons, or 59.6%), needed improvement (117 persons, or 26.0%).

Concerning rules and regulations of the hospital, the opinions surveyed showed that promptness of rendering services: moderate level (227 persons or 50.4%), good level (104 persons or 23.1%), impressive service: moderate level (270 persons, or 60.0%), needed improvement (85 persons or 18.9%).

Before the beginning of the present research study, 450 citizens were surveyed to reveal the needs of population for hospital services which showed that Huay Ploo Hospital needed to improve its equipment and instruments (198 persons or 44.0%), service improvement (189 persons or 42.0%) and improvement of personnel (178 persons or 39.8%).

Variety of medical services

The present study revealed that Huay Ploo hospital offered four types of Thai traditional services, namely preventive and rehabilitative measures stressing the need for active participation of all sectors of personnel by integrating other services with Thai Traditional Medicine through appropriate and effective training and refresher courses to hospital personnel viz. Rehabilitation Medicine, Physical Therapy, Medicine, Obstetrics-Gynecology and others⁽³⁾.

Hospital administration/management concerning health care service that had an impact on the services to hospital customers

It was found that Thai traditional medicine service was formerly under the Pharmacy Service but possessed its own structure with three personnel and no personnel with a relevant graduate degree. After the present research study, the Rehabilitation and Alternative Medicine Service possessed 22 personnel with two persons with university degree in Thai Traditional Medicine. There was training and information propagation of hospital personnel in Thai Traditional Medicine to all sections of hospital

personnel as well as improving administration/management to facilitate and ensure the effectiveness of the integration of Thai Traditional Medicine and Modern Medicine, as well as providing specific area for services of Thai Traditional Medicine, standard procedure of service, screening of patients from the out-patient department, with direct access to Thai Traditional Medicine Service, both directly or referral and sending of Thai Traditional Medicine personnel to requested units in the hospital. In addition, there existed a training service related to Thai Traditional Medicine available to the general population and university students with various facilities, *i.e.* training, work observation, home visits and various form of knowledge media. In addition, there were various enhanced facilities such as health club, physical exercise club, students core helping the distribution of knowledge related to Thai Traditional Medicine⁽⁴⁾.

The results of research studies on alternatives in Administration/Management of Hospitals that would best benefit the health care service of the hospital under the Ministry of Public Health that would lead to the integration of the function of Thai Traditional Medicine service and other services of the hospital were based on:

1. Compilation of Concepts: by theoretical concept of Health Care System proposed by Arthur Kleinman in determining model of administration/management of hospital, information from hospital customers, feed-back from various levels of hospital personnel, information from interviews with the Director General of the Department of Thai Traditional and Alternative Medicine, other components and roles of Health Care Services at local level, administration/management of Health Care Service at National Level, as well as international guidelines⁽⁵⁾.

2. Seeking participating parties: organizations, units, communities and researchers and assistant researchers.

3. Scrutinization by experts for correctness and appropriateness.

Having considered all relevant factors, a conclusion could then be made of the required Administration/Management Model for Hospitals under the Ministry of Public Health. The researchers wished to label the Model as "Huay Ploo Model". It was believed that this model could be applied to most, if not all, of the district/general hospitals of the Ministry of Public Health as these hospitals were all under the same civil service system of the Government.

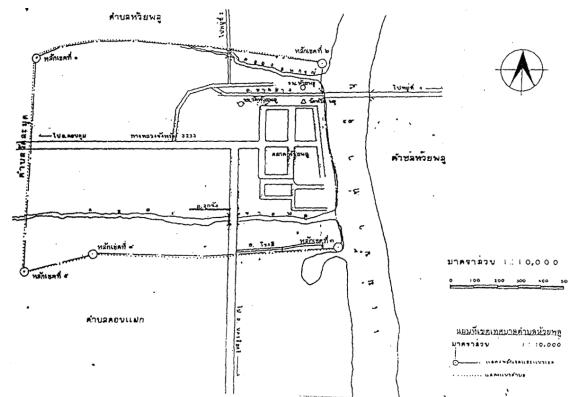


Fig. 1 The map of Huay Ploo subdistrict

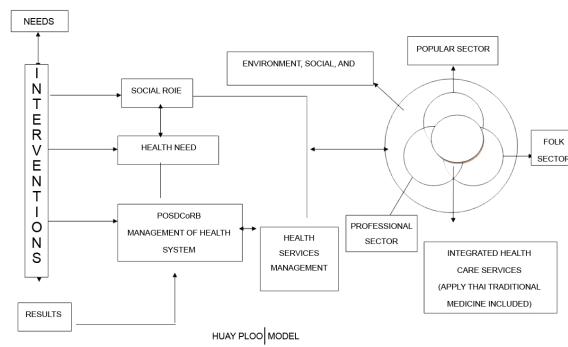


Fig. 2 Huay Ploo Model

Discussion

1. The research design of the present research study possessed the main advantage on several characteristics, viz the nature of prospective study, with relevant factors participating, pre- and post-test nature to ensure the maximum advantages of its applications in actual practices and the on-site research, which enable practical applications of the research results and recommendation possible.

2. Comparative study of various known knowledge. The present research study compared similarities and differences with other research studies and theories that were brought to apply according to different categories of studies.

A. The results of the analysis implied the process of development and carrying out according of model development. This indicated the deficient parts of the management to enable the establishment of Thai Traditional Medicine and Modern Medicine more clearly, as evidenced in the proportion, trends and the patterns of choices of services to the public,

which showed the majority of customers chose modern medicine services, followed by a mixture of treatments and Thai Traditional Medicine only in some minor, insignificant symptoms. When compared to other research works, World Health Organization guidelines⁽⁶⁾ and National Health Policy of Thailand, it was found that the management/administration of hospitals still lacked sufficient details which would facilitate hospital health services of Thai Traditional Medicine to enable its facilities to be in line with other hospital services. The result of the present research was therefore the first that would facilitate such deficiencies.

B. The present research study based its philosophies of Ather Klinman whose work has been referred widely and found to be most suitable as guidelines to the formation of a model development with full integration of Thai Traditional Medicine and Modern Medicine⁽⁵⁾.

C. Health care status that indicated the customer's preference towards health care service. It is revealed from this research study that reflected between the expectation of effectiveness of results of treatment and the pattern of management/administration of hospital services. The decision to choose the best services would depend on a number of factors *i.e.* easiness to find the service, the most economical, easy to reach the facilities, the safety, and the effectiveness of treatment received. Hence, the future development of health care service would have to take the above factors into consideration in conjunction with modern development of modern medicine, particularly the application of modern technology, medical science and modern methods of propagation of information.

D. Characteristic roles that facilitate development. Huay Ploo already possessed sound management/administrative structure base on 4 Ms. Principle *i.e.* personnel, money, material and management. In line with those recommended by Weilrich and Koontz.

E. Thai Traditional Medicine Service and Modern Medicine Service. Although the results of the present research study revealed that, both before and after the period of the present study, there were more customers seeking modern medicine treatment as the result of more and readily accessible modern technologies making more efficient treatment and less complex system of seeking hospital health care service. However, it was also revealed that there were customers seeking a combination of Thai Traditional

Medicine Service and Modern Medicine Service or Thai Traditional Medicine Service alone for a number of ailments, especially 1. Diseases and symptoms of musculo-skeletal system *e.g.* pain in the region of head and neck, shoulders, scapula, chest, 2. Diseases and symptoms of respiratory system especially involving vocal cord, bronchitis, tonsillitis, sore-throat. This implied partial success of integration of the system. The prevalence of diseases decreased implying that the process of development needed more time to succeed.

F. The Impact on National Strategies. The review of knowledge and related information revealed that Thai Traditional Medicine Service has been neglected for a long time and lacked relevant connection with concerned parties resulting in insufficient reference from the main society for a period of time. However, when there were more attempted drives towards Thai Traditional Medicine, such as more development of Thai Traditional Medicine Service and alternative medicine, development of Thai herbal medicines, and protection of Thai Traditional Medicine and indigenous medicine resulting in more use of local natural resource, more use of Thai herbal medicines as well as various other developments of Thai Traditional Medicine⁽⁷⁾.

G. Participation as a key word to Development. From the present study, the combination of Thai Traditional Medicine Services and Modern Medicine Services resulted from active participation of all related parties, *i.e.* hospital sector, community sector, general public, in all stages of development which would eventually enable integration of all services in the hospital as well as active cooperation from the community served by Huay Ploo hospital.

H. The limitations of integrating Thai Traditional Medicine Service in Government Hospitals. As a result of transfers of previous hospital administrations to new administrations resulted in stagnation of Thai Traditional Medicine Service in related hospitals. Therefore, it was advisable to develop Thai Traditional Medicine into main services of the hospitals, particularly its personnel and the needs of the population to attain sustainable integration⁽⁸⁾.

I. Applied Thai Traditional Medicine and Thai Traditional Medicine Services. There have been confusion, misunderstanding and conflicts between those belonging to the two sectors and hospital personnel. Most people still believed that Thai Traditional Medicine Service and Modern Medicine Service were similar in their functions, and roles. There

was also confusions between various names, viz. Applied Thai Traditional Medicine, Thai Traditional Medicine, Indigenous Medicine and Local Medicine. These confusions had lead to the lack of opportunity to development of Applied Thai Traditional Medicine as it was thought unnecessary to do so. In addition, there were a large number of personnel who still held their belief that Applied Thai Traditional Medicine and Thai Traditional Medicine Service were merely offered “massage” with or without “herbal medicine, pot medicine, inhalation medicine, surface medicine”, with herbal medicine as an essential ingredient⁽⁹⁾.

As a matter of fact, Applied Thai Traditional Medicine Service possessed a major development in that Professor Dr. Oauy Ketusingh, Fellow of the Royal Institute of Thailand, who was himself a medical doctor and a well-known scientist, was monumental in developing Applied Thai Traditional Medicine (then known as Aryurveda) by adding Scientific method and Medical Science methods into its curriculum.

The result of the present research study could be concluded that the Model Development of Public Hospital Administrative-Management to integrate the Applied Thai Traditional Medicine into Modern Medicine was established and is known as Huay Ploo Model as shown in the following diagram. The researcher also proposed the setting up of a Centre for Training and Learning within the hospital primarily aiming to enhance personnel development, improve Information Technology as well as acting as a venue for facilitating learning among hospital personnel and act as a driving force towards evidence-based medicine and administration. It was also suggested that the Hospital should hold regular academic meetings of various forms in order to strengthen the knowledge, skill and overall capacity of its personnel.

Potential conflicts of interest

None.

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การพัฒนาการแพทย์แผนไทยประยุกต์เข้าสู่ระบบการแพทย์แผนปัจจุบันอย่างบูรณาการ การศึกษาวิจัยเพื่อพัฒนาแบบจำลองระบบการบริหารจัดการในโรงพยาบาล

ศุภะลักษณ์ พักคำ, เทพลักษ์ ศิริธนาวุฒิชัย, วิทยา จาธุพนผล, พิสมัย หอมจำปา, มนตรี บุญญเลสนิรันดร์

วัตถุประสงค์: เพื่อศึกษาและสำรวจแบบจำลอง (model) การบริหารจัดการการบริบาลสุขภาพ (health care services) ของโรงพยาบาลชุมชนในการบูรณาการแพทย์แผนไทยประยุกต์เข้าสู่ระบบการบริการการแพทย์แผนปัจจุบันได้อย่างเหมาะสมกับความต้องการบริการด้านการบริบาลสุขภาพของประชาชนในเขตความรับผิดชอบ วัสดุและวิธีการ: เป็นการศึกษาตามแผนที่กำหนดไว้ล่วงหน้า หรือ แบบติดตามไปข้างหน้า (prospective study) โดยมีการเก็บรวบรวมข้อมูลพื้นฐานก่อนการศึกษาและนักวิจัยเข้าร่วมในการประชุมกับคณะกรรมการบริหารโรงพยาบาลตลอดระยะเวลา 12 เดือนเต็ม เพื่อสำรวจหาข้อมูลเกี่ยวกับสภาพปัจจุบันและความต้องการด้านสุขภาพ และการบริบาลสุขภาพของประชาชนในพื้นที่รับผิดชอบของโรงพยาบาล สภาพที่เป็นอยู่ของการให้บริการสุขภาพของโรงพยาบาลห่วยพดุ โดยใช้การเก็บข้อมูลของบุคลากรในด้านความรู้ ทัศนคติ การปฏิบัติในการให้บริการของบุคลากร รวมทั้งร่วมแสดงขอคิดเห็นเกี่ยวกับแนวทางการบริหารจัดการการให้บริการสุขภาพในโรงพยาบาลของรัฐอย่างบูรณาการ ผลการศึกษา: ผลการศึกษาพบว่าบุคลากรและเจ้าหน้าที่มีความคิดเห็นต่องานบริการแพทย์แผนไทยของโรงพยาบาล เปรียบเทียบกับความแตกต่างด้านความรู้ ด้านทัศนคติ ด้านความเชื่อ และด้านการสนับสนุนการบริการแพทย์แผนไทยประยุกต์ ระหว่างก่อนและหลังการดำเนินงาน มีความแตกต่างกันอย่างมีนัยสำคัญทางสถิติทุกด้าน ในส่วนของประชาชน พบว่าอัตราความซูกของผู้ป่วยลดลง โดยรวมแล้วก่อนการจัดโครงสร้างมีอัตราความซูกของโรคมากกว่าหลังโครงสร้าง อัตราอุบัติการณ์ของโรคส่วนมากจะพบในกลุ่มอาการระบบ粘膜เนื้อและโครงสร้างมากกว่ากลุ่มอาการระบบขึ้น ผู้ป่วยมีแบบแผนในการเลือกวิธีในการรักษาโดยเมื่อหลังโครงสร้าง เป็นไปในลักษณะแบบผสมผสานใช้หลายวิธีร่วมกัน และมีแนวโน้มใช้แบบแผนไทยประยุกต์มากกว่าก่อนโครงสร้าง ทั้งนี้เนื่องจากโรงพยาบาลมีการเปลี่ยนแปลง คือ บุคลากร เจ้าหน้าที่จากทุกฝ่าย ในระดับปูบูริบัติการ หลังจากได้ทำการสอบถามและให้เสนอข้อคิดเห็นแล้วบุริหารได้นำผลมากำหนดแบบแผนปฏิบัติงานและแผนยุทธศาสตร์ผลักดัน และให้เกิดกระบวนการร่วมมือร่วมใจแก้ไขปัญหา ตลอดจนมีบทบาทและประสานงานร่วมกับทางโรงพยาบาล ได้แก้ไขโดยจัดโครงสร้าง ให้สอดคล้องกับปัญหาของคนพับ ตลอดจนสนับสนุนในด้านกำลังคนและบริการอื่น ๆ ทำให้เกิดผลดีต่อการแก้ไขปัญหาโดยเน้นการดำเนินงานที่มีส่วนร่วมทุกฝ่าย

สรุป: ในการให้บริการสุขภาพของโรงพยาบาลมีลักษณะเป็นองค์รวมของการบริบาลสุขภาพอย่างแท้จริง (holistic health care) โดยมีการบริบาลสุขภาพของโรงพยาบาลเป็น “แกนหลัก” (principal core) ทุกภาคส่วนที่เกี่ยวข้อง อื่น ๆ เป็นสวนที่ให้การสนับสนุน/ส่งเสริม/และอำนวยความสะดวก ผลการศึกษานี้ได้ “แบบจำลองการบริหารจัดการการบริบาลสุขภาพของโรงพยาบาลของกระทรวงสาธารณสุข” (Public Hospital Administrative-Management Model) เพื่อให้การแพทย์แผนไทยประยุกต์เข้าสู่ ควบคู่ หรือ รวมกับการบริการด้านการแพทย์แผนปัจจุบันประเภทอื่น ๆ อย่างบูรณาการ ขณะผู้นิพนธ์ประสงค์ให้แบบจำลองนี้ว่า “แบบจำลองหวยพดุ” (Huay Ploo Model)
