International Journal of Health and Medical Sciences
volume 4 issue 1 pp. 1-8 doi: https://dx.doi.org/10.20469/ijhms.40001-1

Database of Folk Doctor to Provide Knowledge and Apply for Health Self-Management in Public Health Services of the Area under Responsibility of Ranong Education Center, Suan Sunandha Rajabhat University

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Abstract: This research was aimed to; 1. study and survey the data of folk doctors in the area under the responsibility of Ranong Education Center, Suan Sunandha Rajabhat University, and 2. provide the database and apply for health self-management. It was developed the knowledge base on the networking websites of Suan Sunandha Rajabhat University for being the learning center of health care by integrative medicine. The population of this research was 200 patients of the public health services in the area under the responsibility of Ranong Education Center, Suan Sunandha Rajabhat University, which was divided into three groups; 1. childhood and teenage, 2. adult and 3. elder. The data was compiled using the questionnaire and interview for analyzing and processing. The statistics for data analysis were frequency, percentage, mean and standard deviation. The researcher has concluded all issues for the qualitative analysis; content analysis, linkage analysis, and change analysis. The findings revealed that the patients of the public health services in the area under the responsibility of Ranong Education Center, Suan Sunandha Rajabhat University were mostly interested in health self-management from the internet and interested in health information to apply for themselves and their families. The attitude assessment towards the websites and knowledge of database of a folk doctor in educating and applying for health self-management in the public health services revealed that it was in the highest level ($\bar{x} = 4.25$), which it was divided into three parts; 1) the knowledge and understanding were in the highest level ($\bar{x} = 4.21$), 2) the knowledge utilization was at the highest level ($\bar{x} = 4.25$) and 3) the assessment of the website was in the highest level ($\bar{x} = 4.29$).

Keywords: *Database, folk doctor, health management, public health services*

Received: 27 July 2018; ***Accepted:*** 10 August 2018; ***Published:*** 15 March 2018

I. INTRODUCTION

Nowadays, Thailand has a policy of using the information technology for community by developing a network of the community digital leaders which Suan Sunandha Rajabhat University has cooperated with the Ministry of Digital Economy and Society to improve the knowledge for community, update a digital content for people and utilize a digital technology due to it has a big role in promoting the Village E-Commerce. Consequently, the researchers aim at the benefit and they have developed a database of folk doctor to support the accessibility of network technology for people included the

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government policy "Thailand 4.0" which affected the information development in accessibility and integrity. In addition, a trend of health care by the integrative medicine besides the current medicine due to the information technology and relevant research [1]. most people receive the information from both of public and private section as the efficiency of network technology which affected to the interest of people on integrative medical information through the information technology or online social media, and affected to the sustainable health. The data of folk doctor has slightly disappeared now, then the researchers would like to keep the knowledge or wisdom of folk doctor for health care continually [2].

From the data of folk doctor in the areas under the responsibility of Suan Sunandha Rajabhat University for five education centers consist of; 1. Suan Sunandha Rajabhat University, Bangkok Campus, 2. SamutSongkhram Education Center, 3. Nakhon Pathom Education Center, 4. UdonThani Education Center and 5. Ranong Education Center, it reveals that there are a lot of data of folk doctor, various knowledge and wisdom for health care without database management for better accessibility. Consequently, the researchers have compiled and developed this database by starting at Ranong Education Center, Suan Sunandha Rajabhat University which is systematic and ready to use due to the integration of learning management, research, and art and culture maintenance for the highest benefit for who interested in health self-management and health care in the public health services.

A. *The objective of the Study*

1. To study and survey the data of folk doctor in the area under the responsibility of Ranong Education Center, Suan Sunandha Rajabhat University.

2. To provide the database systematically and availability.

3. To promote knowledge in the public health services.

II. LITERATURE REVIEW

Database Management System or DBMS is a group of program for being the center of communication system between the user and database to manage and control the integrity, redundancy and relationship of various data in the database which is different from the data file system that the programmer would link it to the database by using DML or DDL or various programs [3]. All commands would be compiled by DBMS to operate them with a data in the database afterward. DBMS is the interpreter which interprets all commands into the operations with those data consisted of [4].

- Database Manager: defines the operations for File Manager to manage all data in the database.
- Query Processor: interprets Query Language into the commands for Database Manager.
- Data Manipulation Language Precompiler: interprets the DBMS commands into Object Code of the application program.
- Data Definition Language Precompiler: interprets Data Definition Language into MataData in Data Dictionary of the database.
- Application Programs Object Code: interprets the program commands included DBMS from Data Manipulation Language Precompilerinto Object Code that would send Database Managerin the database [5].

Surakiat Archananupab has defined the meaning of Folk Doctor a person who has the medical knowledge for the basic health care, lives in the rural area and inherits the knowledge from ancestor or manuscript which has kept in the temple. It often treats by "Free Medication", doing anything as requested and the expense depends on an agreement of doctor and patients by the compassionate principle; no medical fee, less fee or little objects which unable to be the regular income. Consequently, some of the folk doctors have another occupation such as agriculture or commerce etc. [6, 7].

[8] has defined the meaning of Folk Doctor a person who lives in the village, has the folk medical knowledge which inherited from ancestor and local resource, treats by herb and natural method in the interdependent way as the Ministerial Regulation on the Rule and Method of Committee Recruitment B.E. 2003 of Protection and Promotion of Thai Traditional Medicine Wisdom B.E. 1999 has defined the meaning of Folk Doctor-a person who has the knowledge of health promotion and health care by the wisdom of Thai traditional medicine which inherited for many years and certified by 10 persons or who are certified by the local administrative organization. [8].

[9] said, using an online social media which affected the information perception of patients on the integrative medicine of public health services in UdonThani. The study revealed that most of them were the elderly people, who use less of an online social media which affected to the lack of updated information on health care, and affected to the behavior of information perception on Thai and Chinese traditional medicine that would promote and support the health care to the target group included a promotion guideline of the public section on using an online social media for well-being of people[10]. [11] said, the study of health behavior by Chinese traditional medicine

in Ranong revealed that most of them were treated by Chinese herb and they have chosen it as a choice of health care.

In conclusion, a database development for supporting the local wisdom is the base of living due to it is the knowledge for the problem solving which has accumulated and applied for many years included it is verified that suitable for the other aspects of lifestyle and for all people [8, 12]. The local wisdom should be changeable as the environment or context change. The policy of "Thailand 4.0" is a tool to conserve the local wisdom on the database for using conveniently included to drive the economy on the sufficient economic base which focuses on self-dependent to the community economy and the national economy [3].

III. RESEARCH MODEL

A. *Population and Sample Group*

The population of this research was as follows;

1. The folk doctor in the area under the responsibility of Ranong Education Center, Suan Sunandha Rajabhat University.

2. The patients of the public health services in the area under the responsibility of Ranong Education Center, Suan Sunandha Rajabhat University.

B. *Research Method*

The research methods that were used in this study are a questionnaire and interview which they have created as following;

The questionnaire, it has created from the relevant concept, theory and research, and is divided into four parts;

Part 1-General information
Part 2-The knowledge or wisdom of health care
Part 3-The relevant research of folk doctor
Part 4-Suggestion

And the absolute criteria were used in this study;

4.50-5.00 represented to highest level
3.50-4.49 represented to high level
2.50-3.49 represented to moderate level
1.50-2.49 represented to low level
1.00-1.49 represented to lowest level

2. The structured interview for the in-depth interview in each person.

C. *Checking of the Research Method*

The researcher has brought the questionnaire for the content validity proof from 3 experts included its reliability proof from 30 persons excluded the target group to calculate the Cronbach's Alpha Coefficient.

D. *Data Compilation*

1. Bringing the questionnaire to the target group, compile the primary data, study the relevant document and research of folk doctor, arrange the meeting of researchers and community, brainstorm and improve the knowledge.

2. Conducting the in-depth interview.

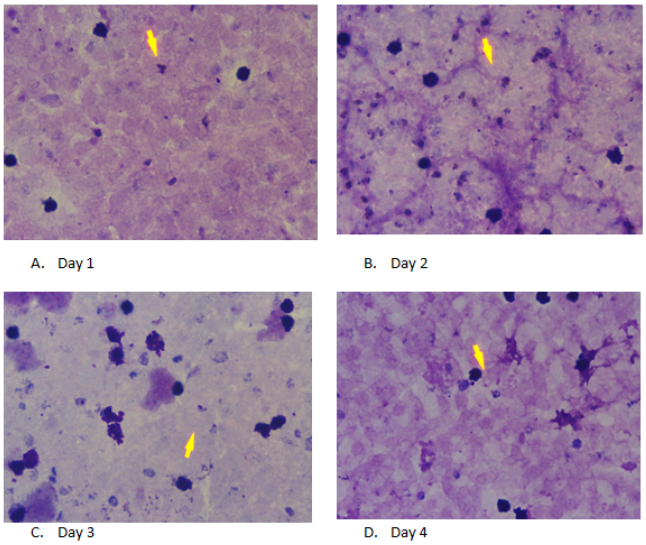

Fig. 1. Meeting of researchers and community

Fig. 2. Brainstorming

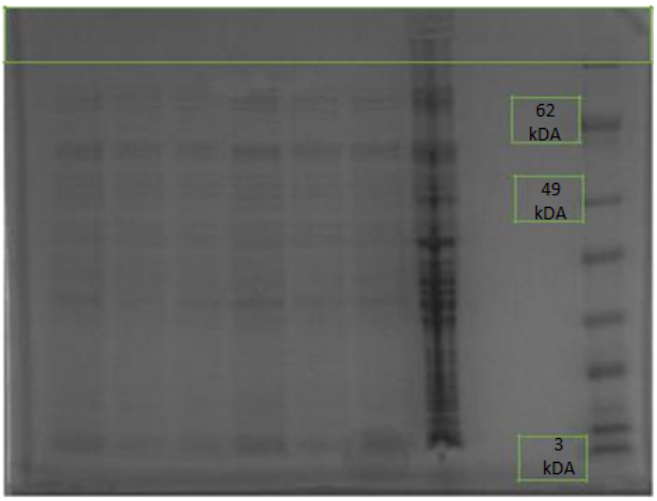

Fig. 3. Conducting the in-depth interview


Fig. 4. Conducting the in-depth interview

E. Data Analysis and Statistic

The researcher has brought the questionnaire for the completion proof and statistical analysis as following;

1. Analyzing and processing the data from the questionnaires by using the statistic values; frequency, percentage, mean and standard deviation.

2. Analyzing and processing the data from the interview questions by concluding in each issue.

3. Bringing the data in item 1. - 2. which were the qualitative data for the content analysis, linkage analysis, and change analysis.

F. Operation Process

Developing the software for website of Suan Sunandha Rajabhat University to be a prototype for the accessibility for people and a primary data of self-management by compiling the knowledge of folk doctor in the area under responsibility of Ranong Education Center, Suan Sunandha Rajabhat University before treating by medical and public health services, the process was as following;

1. Compiling, and analyzing the data and statistic.
2. Structuring the relationship of data and information.
3. Analyzing and designing the system.
   - Framework design
   - Database design
   - Work process design
   - Interaction design
4. Proving the application validation to solve the error of the program and database.
5. System development tool
6. Assessment
   - Assessment on the comment of experts
   - Assessment on the satisfaction of users
7. Concluding the research result and providing the report.

IV. DATA ANALYSIS

From the study of folk doctor's database in educating and applying for the self-management in the public health services in the area under responsibility of Ranong Education Center, Suan Sunandha Rajabhat University which has assessed the satisfaction of 200 users revealed that there were 83 male (41.50%) and 117 of female (58.50%) by dividing into 3 groups; 1. childhood and teenage (26.00%), 2. adult (27.00%) and 3. elder (47.00%).

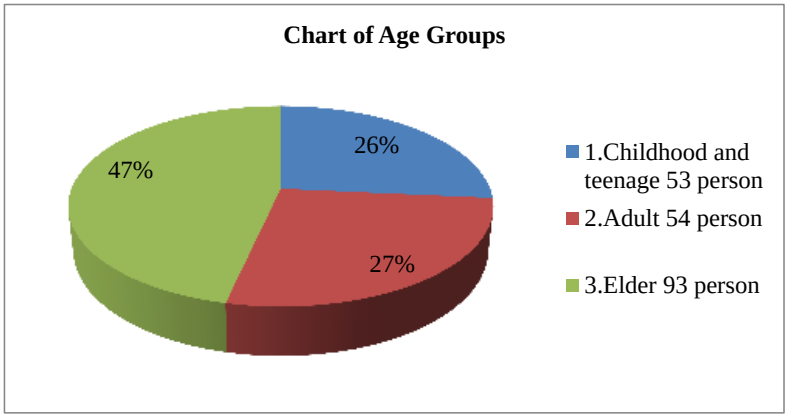

Fig. 5. Chart of age groups

The development of the health database of Ranong Education Center, Suan Sunandha Rajabhat University, it was due to the university has promoted the integration of academic services, research and learning management. Consequently, the researcher has chosen Ranong Education Center in this study and research included a policy of area development by the memorandum of understanding between Ranong Education Center and Ranong Province to develop the proficiency in all aspects to achieve the success, and promote the cooperation of university, faculty staff, and public and private section to strengthen the province continually.

The project team has surveyed the problem and need of the community from previous research and academic services which there were three aspects; information technology, language and health etc. For the purpose that, this project was aimed to promote and support the activity of improving knowledge for the community.

Medical and Public Health Secretary Program, College of Allied Health Sciences, Suan Sunandha Rajabhat University, the program which focused on managing in all aspects for being a good secretary for doctor and executive in the health section. It provided the activity by integrating the knowledge that compiled with a policy of government, university and need of the community for the complete and sustainable knowledge to apply for their daily life.

In addition, it also educated the primary principle of using information technology, Chinese language and health care for students in the community and applied for their daily life appropriately. Due to the Subject HMS3405: Information Technology Management in the Organization which has integrated with the academic services of Using the Information Technology and Chinese Language for Health Care by the second year students of Medical and Public Health Secretary Program as following;

1. The performance has been successful as targeted to provide the basic and cumulative the knowledge of information technologyas the government policy, “Decrease Learning Time, Increase Knowledge Time” included it was a need of the community to develop the proficiency of students in all aspects to support the tourism in Ranong province and being the youth guide afterwards.

2. The integration of the Subject HMS3405: Information Technology Management in the Organization which has integrated with the research and academic services by bringing the knowledge of Ethics and Computer Security and applied for educating the students through the analysis activity of knowledge promotion. Additionally, the integration of the research of Database of Folk Doctor in Educating and Applying for Health Self-Management in the Public Health Servicesin the Area under Responsibility of Ranong Education Center, Suan Sunandha Rajabhat University by bringing the knowledge of health care from the reliable source for their learning and apply for their daily life.

3. The assessments of the project were the questionnaire and presentation of the learning process from 3 activities, then they were analyzed and assessed by the committees consisted of the school executive, speaker and project team for improving and developing the next activities afterward.

The monitoring of performance and a trend of those activities which were concluded by the committees that the project was beneficial because the knowledge excluded the learning management as the government policy, “Decrease Learning Time, Increase Knowledge Time” as follows;

TABLE 1
KNOWLEDGE AND UNDERSTANDING

Question	Level of Satisfaction	Standard Deviation
1.Knowledge of the information technology and health care.	4.34	0.995
2. Perception and understanding of the importance of knowledge from research.	4.16	0.937
3. Understanding the main point of the research process.	4.13	1.043
4. Perception and understanding of the participants throughout the research activities.	4.25	0.971
5. Participation in research activities.	4.17	1.023
Total of Knowledge and Understanding	4.21	0.994

Table 1 indicated that the knowledge and understanding of the patients of Public Health Services was at the high level ($\bar{x}$ = 4.21), when it has analyzed in each item revealed that;

1. Knowledge of the information technology and health care, it was in the high level ($\bar{x}$ = 4.34).

2. Perception and understanding of the participants throughout the research activities, it was in the high level ($\bar{x}$ = 4.25).

3. Participation in the research activities, it was in the high level ($\bar{x}$ = 4.17).

4. Perception and understanding of the importance of knowledge from research, it was in the high level ($\bar{x}$ = 4.16).

5. Understanding of the main point of the research process, it was in the high level ($\bar{x}$ = 4.13).

TABLE 2
KNOWLEDGE UTILIZATION

Question	Level of Satisfaction	Standard Deviation
1. Able to apply the knowledge from activities and bring it for guiding another person.	4.28	0.983
2. Able to apply the knowledge for the daily life and continuously.	4.21	0.954
3. Guideline of cumulating the knowledge from activities.	4.20	0.821
4. Able to apply the knowledge for the occupation.	4.24	0.968
5. A network of community/society	4.32	0.991
Total of Knowledge Utilization	4.25	0.943

Table 2 indicated that the knowledge utilization of the patients of Public Health Services was in the high level ($\bar{x}$ = 4.25), when it has analyzed in each item revealed that;

1. Network of community/society, it was in the high level ($\bar{x}$ = 4.32).

2. Able to apply the knowledge from activities and bring it for guiding another person, it was in the high level ($\bar{x}$ = 4.28).

3. Able to apply the knowledge for the occupation, it was in the high level (x = 4.24).

4. Able to apply the knowledge for the daily life and continuously, it was in the high level ($\bar{x}$ = 4.21).

5. Guideline of cumulating the knowledge from activities, it was in the high level ($\bar{x}$ = 4.20).

Table 3 indicated that the assessment of the website of the patients of Public Health Services was in the high level ($\bar{x}$ = 4.29), when it has analyzed in each item revealed that;

1. Appropriateness of the content, it was in the high level ($\bar{x}$= 4.33).

2. Appropriateness of the website format, it was in the high level ($\bar{x}$ = 4.31).

3. The integrity of the content, it was in the high level ($\bar{x}$ = 4.28).

4. Apply the knowledge from the website; it was in the high level ($\bar{x}$ = 4.27).

5. Accessibility of the website, it was in the high level ($\bar{x}$ = 4.26).

TABLE 3
ASSESSMENT OF WEBSITE

Question	Level of Satisfaction	Percentage
1. Appropriateness of the website format.	4.31	0.989
2. Accessibility of the website.	4.26	0.778
3. the integrity of the content.	4.28	0.983
4. Appropriateness of the content.	4.33	0.803
5. Apply the knowledge from website.	4.27	0.981
Total of Assessment of Website	4.29	0.907

V. DISCUSSION

From the study of Database of Folk Doctor in Educating and Applying for Health Self-Management in Public Health Services in the Area under Responsibility of Ranong Education Center, Suan Sunandha Rajabhat University revealed that most of them have studied the health information from the internet to apply for themselves and their family. The assessment of website and knowledge of the sample group indicated that it was able to cumulative as the national policy, "Thailand 4.0" due to those 3 groups were important in promoting each other, the adult would be a middle man to link the childhood and teenage included the elder for their self-development for the health readiness.

VI. CONCLUSION

The research of Database of Folk Doctor in Educating and Applying for Health Self-Management in Public Health Services in the Area under Responsibility of Ranong Education Center, Suan Sunandha Rajabhat University focused onthe participation of 200 persons; 83 of male and 117 of female which was divided into 3 groups; 1) 53 of childhood and teenage, 2) 54 of adult and 3) 93 of elder. The research process was data compilation, data analysis and learning management which focused onthe new knowledge or new learning innovation of the target group to cumulative for the complete result. The monitoring and conclusion for the highest benefit, it was concluded from the assessment to improve the activities continuously from the knowledge excluded the learning management as the government policy, "Decrease Learning Time, Increase Knowledge Time" as follows;

1. Knowledge and Understanding of the patients of Public Health Services was at the high level ($\bar{x} = 4.21$).

2. Knowledge Utilization of the patients of Public Health Services was at the high level ($\bar{x} = 4.25$).

3. Assessment of Website of the patients of Public Health Services was at the high level ($\bar{x} = 4.29$).

To follow the national policy and respond to the national strategy, it would promote and support the learning continuously by the participation of local administrative organization and educational institute for the community sustainability.

ACKNOWLEDGMENT

The researcher would like to thank the patients of Public Health Services in Ranong who participated in this data compilation. This research was supported by Suan Sunandha Rajabhat University, the researcher would like to thank the College of Allied Health Sciences, Samut-Songkhram Education Center for supporting this achievement.

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