

The Knowledge of Thai Herbs among Thai People

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Abstract. The objective of this research study was to examine the basic knowledge of Thais within the country about Thai herbs, and their learning about Thai herbs. The researchers distributed 900 tests and questionnaires to the sample group interested in Thai herbs, in the northern, northeastern, central, and southern regions. Tool used in the study is a test evaluating knowledge of Thai herbs, their natural healing property, and applications. The other was a questionnaire designed to examine the participants in applying Thai herbs and in learning about them. The statistical data analyses were percentage, mean, standard deviation (S.D.), t-test and ANOVA. The results of the study showed that 97% of could identify Thai herbs, 61% knew their healing property, and 70% knew how to use them. However, when the studies into four categories: gender, education level, residential area, and regions. It was found that female knew knowledge of Thai herbs' name Thai herbs, knowledge of Thai herbs' natural healing property, and knowledge of Thai herbs' applications more than male and it was found that there was a statistically significant difference as identify Thai herbs and applications of Thai herbs. Bachelor's degree gain higher scores than Senior high school and Undergraduates' Student on identify of Thai and applications of Thai herbs. Senior high school gain higher scores than Undergraduates' Student and Working people on Thai herbs' healing property and, it was found that there was a statistically significant difference as Thai herbs' healing property and applications of Thai herbs. The people in the Bangkok Metropolitan area and suburbs knew healing property of herbs and their applications less than those who live in the provinces and, it was found that there was a statistically significant difference as Thai herbs' healing property and applications of Thai herbs. Northeastern region gain higher scores than other regions and, it were found that there was a statistically significant difference as Thai herbs' healing property and applications of Thai herbs.

Keywords: Knowledge of Thai herbs, Thai herbs, Thai herbs' healing property, Applications of Thai herbs Understanding of Thai herbs.

1. Introduction

The knowledge and application of Thai herbs is considered an important Thai local wisdom which has evolved and been passed down through the generations. It also plays an important role in the development of the society and the country [1]. Western culture has had a great impact on the way of life of people in developing countries, such as Thailand, particularly on their health and diet. Many people live such a hasty life trying to catch up with the fast-changing age of technology that they are less concerned about their own health than in the past. When they are ill, they can go to the hospital or clinic to get a quick treatment. With such convenience, people tend to hold on to the idea that it is the doctor's job to fix their health. They overlook the fact that there is a traditional wisdom available to them to strengthen their health. Currently, many Thais and foreigners are more and more interested in the new alternative medicine which can approach the same problem from a different direction. In other words, instead of finding a cure to a disease, people should find a way to protect themselves from it by changing their diet and the way they eat [2].

The popularity of Thai herb use has been growing along with more herb-related occupational groups and herbal medicine schools that teach how to apply herbs in regular medical treatments. Many research studies on Thai herbs were also conducted [3]. However, such popularity was limited to certain groups, mostly that middle aged and above, or only those involved in the field of traditional Thai medicine treatment. Thai youths show little interest in Thai herbal wisdom, and thus this invaluable knowledge has started to be lost in

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later generations. Currently, Thai people care more about following global trends while forgetting to appreciate their own potential and wisdom. For example, a Korean wave has recently been embraced among Thai youths who try to imitate Korean actors and actresses, such as apparel, cosmetic surgery, and the use of imported healthcare products [4].

When considering the use of herbal application in treating the world community, it was found that herbs are very popular on a global level and have expanded quickly into developed countries. The World Health Organization has estimated the herbal medicine market to be worth over 60,000,000,000 US dollars per year, or about 2,000,000,000,000 baht. In the Thai market, from a survey done by Kasikorn Thai Research Center, it was found that the use of herbs increased by 20% per year. In 2005, the value of herbal products was 48,000,000,000 baht, including herbal medicine which was worth 8.81 million baht [5]. The new trend for alternative medicine has doubled its popularity. Spa businesses have been sprouting everywhere over the past several years and gained a lot of interest from both Thais and foreigners. Herbal extract businesses have also grown to be an important business model and well-accepted among those who are concerned about their health [3]. These examples reflect the changing behaviors and awareness of the new social values which would help promote Thai traditional medicines. The alternative use of herbs for medical treatment has multiple benefits, both for curing diseases and boosting the economy.

Knowledge of Thai herbal medicines and their development has been passed on from generation to generation for over a thousand years and has become valued as local wisdom. However, it has mostly been distributed in the form of printed materials, such as textbooks. It is not widespread among youngsters who show low interest in print media. They prefer multimedia, as it can react with the users much better. It was found that people can learn and memorize content only 20% from reading, 30% from listening, 50% from both reading and listening, and 80% from reading, listening, and doing [6].

This study aimed to reflect the knowledge of Thai herbs among Thai youths, the results of which would be beneficial for further developing school curriculums to include the study of Thai herbs.

2. Objectives

To study the knowledge of Thai herbs' name among Thai people.

To study the knowledge of Thai herbs' natural healing property among Thai people.

To study the knowledge of Thai herbs' applications among Thai people.

3. Methodology

The research tool used in this study included a test on knowledge of Thai herbs, their natural healing property, and their applications.

This study consisted of four parts. One was a 10-item test on basic knowledge of Thai herbs and a 30-item test on herbs' natural healing property parts, and the last a 10-item test on application of herb parts to study the knowledge about herbs. The other was a questionnaire designed to examine the participants in applying Thai herbs and in learning about them.

Population consisted of three main groups: senior high school, undergraduates' student and bachelor's degree in the northern, northeastern, central, and southern regions. There were 900 samples, selected by the sample group interested in Thai herbs.

The researchers distributed 900 tests and questionnaires to the sample group. The data were analyzed with methods of quantitative research. The statistical data analysis was the frequency distribution including percentage, mean, standard deviation, t-test, and ANOVA.

4. Results

The study of Thai herbs are defined as identify of Thai herbs, knew Thai herbs' healing property and applications of Thai herbs. The results of the study about knowledge of Thai herbs among Thai people are shown in Tables 1 – 4.

Table 1: The percentage of scores and the comparison of knowledge about Thai herbs between Male and Female using the t-test

Issue	Sex	Percentage of Score	Mean	SD	t-test
Identification	Male	84.88	19.43	0.94	- 5.37*
	Female	92.92	19.72	0.73	
Healing Property	Male	53.33	11.69	3.15	0.15
	Female	68.48	11.72	3.24	
Applications	Male	56.86	7.15	3.45	4.16*
	Female	64.94	8.14	3.91	

* P<0.05

Table 1 shows the percentage of scores on the test of basic knowledge of herbs between gender that could identify Thai herbs (84.88% and 92.92%, respectively) and knew healing property of Thai herbs (53.33% and 68.48%, respectively) and knew the applications of Thai herbs (56.86% and 64.94%, respectively). When running the t-test to analyze the data, it was found that there was a statistically significant difference as identify Thai herbs and applications of Thai herbs at P<0.05. However, there was no statistically significant difference between the two groups about their knowledge of herbs' healing property.

Table 2: The percentage of scores and the comparison of knowledge about Thai herbs between Senior high school, Undergraduates' Student and Bachelor's degree using One-Way ANOVA

Issue	Education	Percentage of Score	Mean	SD	F
Identification	Senior high school	96.10	19.56	0.94	0.39
	Undergraduates' Student	96.80	19.62	0.79	
	Bachelor's degree.	97.20	19.59	0.80	
Healing Property	Senior high school	61.12	11.11	2.84	9.39*
	Undergraduates' Student	63.53	12.22	2.16	
	Bachelor's degree.	65.13	19.59	0.84	
Applications	Senior high school	65.63	5.94	1.17	9.98*
	Undergraduates' Student	68.4	11.71	3.2	
	Bachelor's degree.	69.15	11.77	3.97	

* P<0.05

Table 2 shows the percentage of scores on the test of basic knowledge of herbs between education (Senior high school, Undergraduates' Student, and Bachelor's degree.) that could identify Thai herbs (96.10%, 96.80% ,and 97.20%, respectively) and knew healing property of Thai herbs (61.12% , 63.53% ,and 65.13% respectively) and knew the applications of Thai herbs (65.63% , 68.40% ,and 69.15% respectively). Bachelor's degree gain higher scores than Senior high school and Undergraduates' Student on identify of Thai and applications of Thai herbs. Senior high school gain higher scores than Undergraduates' Student and Working people on Thai herbs' healing property. When running the F-test to analyze the data, it was found that there was a statistically significant difference as Thai herbs' healing property and applications of Thai herbs at P<0.05. However, there was no statistically significant difference about their knowledge of identify of Thai herbs.

Table 3: The percentage of scores and the comparison of knowledge about Thai herbs between inside and outside Bangkok using the t-test

Issue	Area	Percentage of Score	Mean	SD	t-test
Identification	Bangkok metropolitan	94.50	19.54	0.95	- 1.42
	suburbs	96.10	19.64	0.77	
Healing Property	Bangkok metropolitan	51.98	11.40	2.31	1.56*
	suburbs	56.37	12.93	2.81	
Applications	Bangkok metropolitan	54.67	5.92	1.22	1.87*
	suburbs	69.47	7.59	1.17	

* P<0.05

Table 3 showed that almost all of inside and outside Bangkok who could identify Thai herbs (94.50% and 96.10%, respectively) and knew healing property of Thai herbs (51.98% and 56.37%, respectively) and knew the applications of Thai herbs (54.67% and 69.47%, respectively). They could obtain score more than a half on healing property and on applications. When running the t-test to analyze the data, it was found that there was a statistically significant difference as Thai herbs' healing property and applications of Thai herbs at $P < 0.05$. However, there was no statistically significant difference between the two groups about their knowledge of identify of Thai herbs.

Table 4: The percentage of scores and the comparison of knowledge about Thai herbs between regions using One-Way ANOVA

Issue	Regions	Percentage of Score	Mean	SD	F
Identification	Northern region	96.87	19.64	0.81	0.54
	Northeastern region	98.34	19.66	0.75	
	Central region	95.12	19.57	0.82	
	Southern region	96.16	19.55	1.03	
Healing Property	Northern region	62.11	11.40	2.66	5.36*
	Northeastern region	68.14	12.81	2.2	
	Central region	59.23	11.17	2.58	
	Southern region	61.68	11.18	1.47	
Applications	Northern region	61.12	6.13	1.22	8.40*
	Northeastern region	63.21	6.94	1.02	
	Central region	58.42	5.79	1.18	
	Southern region	60.86	6.00	1.41	

* $P < 0.05$

Table 4 shows the percentage of scores on the test of basic knowledge of herbs between regions (northern, northeastern, central, and southern regions) that could identify Thai herbs (96.87% , 98.34% , 95.12 % and 96.16%, respectively) and knew healing property of Thai herbs (62.11% , 68.14% , 59.23% and 61.68% respectively) and knew the applications of Thai herbs (61.12% , 63.21% , 58.42% and 60.86% respectively). Northeastern region gain higher scores than other regions. When running the F-test to analyze the data, it was found that there was a statistically significant difference as Thai herbs' healing property and applications of Thai herbs at $P < 0.05$. However, there was no statistically significant difference about their knowledge of identify of Thai herbs.

5. Discussion & Conclusion

Generally, most Thai students could identify Thai herbs because the herbs used in this study could be found in Thai kitchen [7]. The study of herb healing property and their applications showed that the students did not know much due to their lack of interest in the subject [8]. The study based on the education level indicated that the higher the educations of the students were, the more knowledge about Thai herbs they got. The rural students knew Thai herbs more than urban students, since most of them cooked their own meal while the latter often ate out or bought ready-made meals, making them less exposed to the knowledge of Thai herbs' healing property and their applications. Rural residents were found using Thai herbs more than urban residents. This is parallel with the study of Arunsri Mongkolchart who stated in her study that the use of herbs found in the northeastern region was more than in other regions. She explained that for the medical treatment, rural residents still used local herbs, and therefore it was included in their lives. The knowledge transferred from generation to generation. In terms of age, people in the range of 46-59 years old and those who are 60 years old and above (elders) used more herbs than other age groups [9]. The studied the use of Thai herbs in Ubon Ratchathani. The study showed that most residents started to learn about Thai herbs during the ages of 16-25. More than a half (54.9%) learned through former generations or from their immediate relatives who were local doctors and eighty two percent was told by respected persons in the village. The use of herbs for medical treatment is still provided for the villagers, neighbors, and distant residents. [10].

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7. References

- [1] Glintian. *Herbs: Thai wisdom for your beloved childer*. Bangkok, 2004.
- [2] Panichyuupagaranan ,P., (2011, September 28). “*Herbs for health care.*”, [On-Line]. Available: <http://pcog.pharmacy.psu.ac.th/thi/Article/2549/01-2549/healthandherbal.pdf> .
- [3] Yuwatanakorn, U. *The development of school based curriculum on herbs for first grade students*, Bangkok, 2003.
- [4] Pathomviriyavong, M. *Consumer' attitude towards Thai herbal cosmetics industry*. Bangkok, 2006.
- [5] Kornkasem, M., 2011, September 21). “*WHO reveals the popularity of herbs worldwide rises up to 2 trillion baht per year*”, [On-Line], Available from: [http://www.manager.co.th/QOL/ViewNews.aspx?NewsID = 9500000096198](http://www.manager.co.th/QOL/ViewNews.aspx?NewsID=9500000096198)
- [6] Amnuaypan, I. *Computer games to support the learning of Thai herbs*, M. Sc. Thesis in Computing Technology for Education, Phetchaburi Rajabhat University, 2010.
- [7] Mungklakupt, T. & Ruangransi, N. *Thai Herbs*. Bangkok, 2004.
- [8] Riewpaiboon, A. *Econmic research on herbal utization: Conceptual framwork and situations in Thailand*. Bangkok, 2000.
- [9] Mongkolchati, A. *Factor related to utilization of traditional and herbal medicine in Thailand*. Bangkok, 1992.
- [10] Prasitpuriprecha, C. *The use of Thai herbs in Ubon Ratchthani Province*. Ubon Ratchthani, 2002.