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Original Research Article

Study on the Attitudes, Perceptions, and Behaviors of Youth on the Use of Thai Traditional Medicine in Singhanakhon District, Songkhla Province, Thailand

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ABSTRACT

This quantitative research study investigates youth's attitudes, beliefs, and behaviors concerning the use of Thai Traditional Medicine in Singhanakhon District, Songkhla Province, Thailand. The researcher used a closed-ended questionnaire to collect data from a sample of 140 participants. Sample size determination followed the guidelines of Hair (2010). Eligible participants were Thai-speaking individuals aged 15–24 years who consented to and cooperated in the study, during the period from February to October 2021. The data were analyzed using descriptive statistics with program R, including calculations of mean, standard deviations, and Pearson correlation coefficients. Findings revealed statistically significant positive correlations between attitudes toward herbal medicine, reasons for use, and herbal medicine usage behaviors among youth ($p < 0.05$). Furthermore, perceptions related to disease treatment and the perceived benefits of herbal medicine were positively associated with usage behavior at a higher significance level ($p < 0.01$). The results suggest that favorable perceptions and adequate knowledge of Thai Traditional Medicine contribute to increased adoption among young individuals. Social influence, family background, and accessibility to herbal products were also identified as influential determinants of herbal remedy usage behaviors. These findings provide foundational insights that may guide the development of educational strategies to foster appropriate attitudes and behaviors toward Thai Traditional Medicine among youth. They also offer practical implications for researchers, educators, and policymakers seeking to promote informed and safe usage of Thai Herbal Medicine. Future studies could explore experiential learning approaches to enhance awareness and ensure responsible use of traditional remedies among young populations.

Keywords: Attitude, Perception factors, Thai Traditional Medicine consumption behavior, Youths

Introduction

Human life, from ancient times, has fundamentally depended on natural resources, particularly plants, for survival and health maintenance. Knowledge regarding various plant species and their applications in healthcare has been transmitted across generations, embedding itself deeply within the cultural fabric of local communities. Consequently, the types and uses of medicinal plants exhibit significant regional variation, often intertwined with the unique lifestyles of diverse ethnic groups since antiquity.[1] In recent years, numerous countries have increasingly emphasized natural health products as integral components of healthcare systems. Herbal medicines, recognized as accessible and natural therapeutic options, are typically associated with minimal side effects, deemed safe for consumption, and offer cost-effective alternatives to conventional treatments. These attributes have elevated herbal products as therapeutic and preventive health modalities, thereby enhancing their perceived value among consumers. Currently, herbal medicines are evolving beyond traditional formulations, expanding into modern pharmaceutical preparations and dietary supplements.

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According to the most recent Euromonitor International report on herbal and traditional products in Thailand, consumption of these products is projected to maintain a steady upward trajectory through 2024 and further accelerate between 2024 and 2029, as demonstrated by Euromonitor (2023).[2] This growth is propelled by several key drivers: the rising global demand for plant-based and natural products, increasing consumer trust in the safety and efficacy of herbal remedies, and proactive governmental policies that promote indigenous knowledge and incorporate herbal medicine within Thailand's public health infrastructure. On a global scale, Market.us Media corroborates this positive outlook, forecasting the herbal products market to expand consistently, with its value anticipated to surge from USD 135 billion in 2022 to USD 249.5 billion by 2032, as demonstrated by Market.us Media (2023).[3] The Ministry of Public Health in Thailand has documented a continuous rise in domestic consumption of herbal medicine products over recent years, a trend that remains robust in the latest reporting periods. In alignment with these developments, the Ministry has implemented strategic initiatives under the "Health for Wealth" framework, aiming to leverage health as a catalyst for sustainable economic growth[4]. This framework promotes traditional Thai medicine, alternative therapies, and herbal knowledge while fostering the growth of medical tourism. These initiatives collectively aspire to position Thailand as a regional medical hub, stimulate job creation and income generation, and strengthen the national economy. Moreover, they endeavor to safeguard and perpetuate the cultural heritage and traditional wisdom associated with Thai medicine and herbal remedies.[3] The southern region surrounding Singhanakhon District, Songkhla Province, remains abundant in diverse flora and rich with historical heritage, as it encompasses the ancient city of Singora (modern-day Songkhla City).[5] Historically, this area flourished as a center for trade and transportation, with enduring archaeological evidence manifested in architectural structures, sculptures, ancient sites,

and artifacts.[6] The region is also characterized by forests teeming with medicinal plants and herbs. Traditional healing practices continue to thrive, upheld by respected local folk healers whose remedies have demonstrated efficacy in disease prevention and self-care through the application of Thai traditional medical knowledge. Sustainable self-care practices based on local wisdom have been preserved and cultivated across many communities over extended periods. This ongoing cultural transmission fosters a dynamic tradition of knowledge acquisition and practical utilization of medicinal plants. Such educational wisdom has been inherited intergenerationally, becoming an integral element of local identity and culture. Consequently, medicinal plants play a vital role in daily life, underpinning traditional Thai medical wisdom that remains essential for regional healthcare and is actively passed down to younger community members. Attitudinal and perceptual factors significantly influence the development of youths' knowledge, understanding, and emotional responses toward herbal medicines. These factors, shaped by personal experiences and environmental contexts, govern whether young individuals adopt positive or negative stances regarding herbal remedies. Attitudinal components encompass beliefs about the value of herbal medicines, their effectiveness in disease treatment, and the anticipated benefits of their use. Perceptual factors include motivations for utilizing herbal products, perceived efficacy in symptom management, and access to reliable information regarding herbal medicine—all of which shape youths' decisions to engage in herbal medicine consumption. Given the aforementioned context and significance, this study aims to explore the relationships between attitudinal and perceptual factors and the consumption behaviors of herbal medicine among youths in Singhanakhon District, Songkhla Province. The findings are intended to inform strategies that promote informed knowledge and positive attitudes among youths concerning herbal medicine selection, thereby enhancing appreciation for the benefits and value of herbal remedies. Additionally, such insights may foster increased awareness and support for the preservation and transmission of traditional herbal medicine wisdom within local communities.

Materials and Methods

Study area

Singhanakhon is a district in Songkhla Province (7°15′3.45″ N, 100°30′25.61″ E), located to the northwest of the province along the Gulf of Thailand's outer and inner seas. It is approximately 974 kilometers from Bangkok and 23 kilometers from the provincial capital (Figure 1). The general topography of Singhanakhon consists of coastal flatlands that gradually slope down towards the eastern coastline along the Gulf of Thailand and the western side towards Songkhla Lake. To the south, the area is mountainous, with Khao Kiew and Khao Daeng hills sloping down to the coastline. The district has a triangular shape extending into the lake, covering a total area of 48,109 acres, with 23,151 acres being flatlands, which accounts for 48.12% of the total area.[7]

Population and sample

In this research, the researcher studied only a group of youths in Singhanakhon District, Songkhla Province, who met the following criteria: (1) aged between 15 and 24 years; (2) gave consent and cooperated in the study, and (3) were able to communicate in Thai. The sample size was determined based on the concept of Hair (2010),[8] which indicates that the sample size should be at least 20 times the number of variables studied. In this case, there are 7 variables; therefore, the sample size consisted of 140 participants. The research was conducted from February to October 2021.

Research Instrument

The tool used for data collection was a questionnaire developed based on relevant information, concepts, theories, and research related to the use of herbal medicines. The questionnaire consisted of four parts as follows:

Part 1) A checklist designed to collect general information about the respondents.
Part 2) A rating scale questionnaire designed to assess attitudes toward the use of herbal medicines.
Part 3) A rating scale questionnaire on the perceived use of herbal medicines.
Part 4) A behavioral questionnaire on the use of herbal medicines, which also employed a rating scale.
The questionnaire was evaluated for item-objective congruence (IOC) by qualified experts, with values ranging between 0.98 and 1.00. It was then administered to a sample of 140 participants to assess reliability using Cronbach's alpha coefficient, which ranged between 0.89 and 0.95. Details are presented in Table 1.

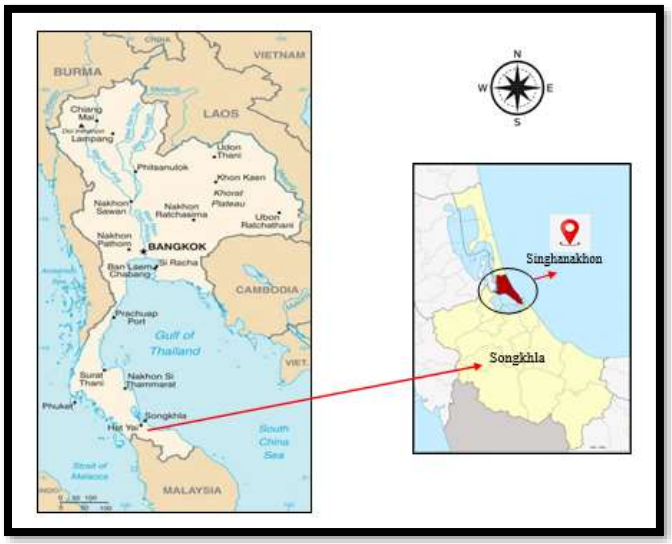

Figure 1: Map of the study area in Singhanakhon District. Songkhla Province, Thailand[19,20]

Table 1: Scoring questionnaire and definition criteria for the mean of the research

Questionnaire	Rating scale	Mean Translation Criteria
Negative question	1=most	1.00-1.80 =least
	2=a lot	1.81-2.60 =low
	3=medium	2.61-3.40 =moderate
	4=low	3.41-4.20 =a lot
	5=minimum	4.21-5.00 =the most
Positive question	1=minimum	
	2=low	
	3=medium	
	4=a lot	
	5=most	

Data collection and Sampling

The researcher obtained an official letter from the university requesting cooperation from relevant organizations for data collection. This letter was presented alongside the questionnaires when approaching the sample group. Participants were asked to respond according to predefined criteria. Before data collection, the researcher explained the objectives of the study and sought informed consent. Upon agreement, the questionnaires were distributed. Subsequently, all returned questionnaires were reviewed for completeness, and only fully completed responses were scored according to predetermined criteria for further statistical analysis. This study employed a structured questionnaire using a rating scale to collect data from a sample of 140 youth aged 15–24 who reside in Singhanakhon District, Songkhla Province, Thailand. All participants voluntarily consented and agreed to participate in the study. The questionnaire consisted of closed-ended items measured on a Likert-type scale, to assess participants' attitudes,

perceptions, and behaviors regarding the use of Thai Traditional Medicine. Each participant completed the questionnaire once. The data collected provided quantifiable insights that supported the study's objectives.

Data analysis

The data were analyzed using the program R (R program Version 4.3.1, 2023, R Foundation for Statistical Computing)[9] to analyze the mean, standard deviation, and to examine the relationship between attitude and perception factors and the herbal medicine consumption behavior of youths in Singhanakhon District, Songkhla Province, using Pearson's correlation coefficient.

Results and Discussion

The dependent variable in this study was herbal medicine use behavior (Y). The analysis showed that the participants used herbal medicines at a high level (mean = 3.60). Regarding the attitude factors, it was found that attitudes toward treating diseases with herbal medicine use (X_2), attitudes toward herbal medicine use information (X_3), and attitudes toward the causes of herbal medicine use (X_1) were all at high levels, with mean values of 4.09, 4.04, and 4.00, respectively. Perceptions related to studying information regarding the utilization of herbal medicine benefits (X_6), perceptions toward the causes of herbal medicine use (X_4), and perceptions toward treating diseases with herbal medicine use (X_5) were also at high levels for all three variables, with mean values of 3.85, 3.84, and 3.79, respectively. Details are shown in Table 2.

Table 2: Means and standard deviation of the variables used in the research

Dependent variable	Mean Score	S.D.	Level
Behavior of using herbal medicines)Y(	3.60	0.77	High
Attitude factor			
- attitude towards the causes of herbal medicine use (X_1)	4.00	0.68	High
- attitudes towards treating diseases with herbal medicine use (X_2)	4.09	0.56	High
- attitude towards herbal medicine use information (X_3)	4.04	0.43	High
Perception factor			
- perception towards the cause for herbal medicine use (X_4)	3.84	0.79	High
- perceptions towards treating diseases with herbal medicine use (X_5)	3.79	0.80	High
- perception towards studying information regarding utilization of herbal medicine benefits (X_6)	3.85	0.72	High

From the analysis of the relationship between attitude factors and herbal medicine use behavior, it was found that attitude towards studying information about herbal medicine use (X_3) and attitude towards the causes of herbal medicine use (X_1) were positively correlated at a low level with herbal medicine use behavior, with statistical significance at the 0.05 level (r = 0.20, 0.15). Attitude towards the treatment of symptoms by herbal medicine use (X_2) was also positively correlated at a low level with herbal medicine use behavior, with statistical significance at the 0.01 level (r = 0.13).

The analysis of the relationship between perception factors and herbal medicine use behavior showed that perception towards the study of information regarding the utilization of herbal medicines' benefits (X_6) and perception towards the treatment of diseases with herbal medicines (X_5) were positively correlated at a moderate level with herbal medicine use behavior, with statistical significance at the 0.001 level (r = 0.38, 0.35). Perception of the causes of herbal medicine use (X_4) was positively correlated at a low level with herbal medicine use behavior, with statistical significance at the 0.01 level (r = 0.22), as shown in Table 3.

According to a study on the relationship between attitude and perception factors and herbal medicine use behavior among youths in Singhanakhon District, Songkhla Province, it was found that herbal medicine use behavior among youths was at a high level. Perception factors, social media use behavior, attitude towards studying information about herbal medicine use, and attitude towards the causes of herbal medicine use were positively correlated with herbal medicine consumption behavior. This may be due to the rising trend in herbal medicine use, which has increased awareness among youths and the general public. Additionally, the global "back to nature" movement continues to influence people's preferences for natural products and medicines. Since the outbreak of COVID-19 in 2020, there has been increased public interest and confidence in herbal medicine products.[10] According to the Department of International Trade Promotion (DITP), the export value of the Thai herbal medicine market in 2021 increased by 29.47% compared to 2020, which had already seen a growth rate of 18.20%. This demonstrates the growing importance of herbal medicine among the younger generation as a safe and natural health alternative, contributing to increased market value.[11]

Table 3: The relationship between attitude and perception factors and herbal medicine use behavior

Dependent variable	r	*p*-value	95% Confidence Interval	
- attitude towards the causes of herbal medicine use (X_1)	0.15	0.052	-0.00	0.30
- attitudes towards treating diseases with herbal medicine use)X_2(	0.13	0.088	-0.02	0.28
- attitude towards herbal medicine use information (X_3)	0.20	0.010	0.05	0.34
- perception towards the cause for herbal medicine use (X_4)	0.22	0.003	0.07	0.36
- perceptions towards treating diseases with herbal medicine use (X_5)	0.35	0.000	0.21	0.48
- perception towards studying information regarding utilization of herbal medicine benefits (X_6)	0.38	0.000	0.24	0.50

*p < .05 ** p < .01 ***p < .001

Government policies, particularly the 2017–2021 Master Plan for the Development of Thai Herbal Medicines,[12]have further promoted the growth and sustainability of the herbal medicine industry.[13] Youths and community members use herbal medicines to treat diseases due to their trust in the production processes and quality control standards, which are believed to ensure safety and effectiveness comparable to modern medicine but with fewer side effects. Herbal medicines are also easily accessible, can be homegrown, and are more affordable than chemical drugs. Their use helps reduce the trade deficit in pharmaceutical imports and lessens dependence on expensive foreign medicines.[14] Youths'

growing interest and positive attitudes towards herbal medicines also support the preservation of traditional Thai knowledge. Furthermore, perceptions regarding the treatment of diseases with herbal medicines (X_5) and perceptions related to studying the benefits of herbal medicines (X_6) were positively correlated with herbal medicine use behavior. This indicates that youths in the area possess knowledge and awareness of the therapeutic properties of herbal medicines, largely due to exposure to informative media. Ongoing research on herbal medicines has also improved public understanding of safety, properties, side effects, and appropriate usage. Petchmanee (2021) found that support factors such as access to information and social support regarding herbal medicines were positively correlated with herbal medicine use behavior, although the correlation was not statistically significant ($p > 0.05$).[15] This finding aligns with Jaitia (2021), who reported increasing recognition and usage of herbal medicines among the elderly in Thailand. Traditional medicine is often used initially to relieve symptoms before other treatments are administered. Such trends may result from community-level promotion of local herbal medicines, engagement in related activities, communication via local media, and continuous education provided by public health officials. These factors contribute to greater awareness among the elderly, consistent with findings that perceived benefits of local herbal medicines significantly correlate with self-care behavior. In this context, perceived benefits can serve as motivation for health-related actions.[16]Therefore, it is essential to promote and encourage greater public utilization of herbal medicines, as well as to support the development of knowledge and raise awareness about the importance of applying local and indigenous wisdom for improved health outcomes. Traditional Thai herbal medicine as an alternative treatment has a long history of usage and provides therapeutic options,[17] particularly in communities where access to modern healthcare may be limited or where cultural practices favor natural remedies. This historical foundation offers a valuable opportunity to integrate traditional knowledge into current health promotion strategies. In addition, policies and strategic plans should be developed to address the current demand for herbal plant use, taking into account the physical changes in community areas and natural forest environments. Such initiatives should foster genuine collaborative learning and involve a diverse range of key informants to ensure a comprehensive understanding. The research findings should be used as a foundation for planning and implementing educational activities related to herbal medicine and herbal products, ultimately benefiting the public and promoting sustainable health practices.[18]

Conclusion

This study examined the relationship between attitudes, perceptions, and behaviors of youths regarding the use of Thai traditional medicine in Singhanakhon District, Songkhla Province. The findings revealed that the level of herbal medicine use among youths was high. Positive correlations were found between the use of herbal medicine and various factors, including attitudes toward studying information about herbal medicines, attitudes toward causes of use, and perceptions regarding the benefits and treatment properties of herbal medicines. Notably, perception factors related to studying herbal medicine information (X_6) and perception of disease treatment with herbal medicines (X_5) showed moderate positive correlations with actual usage behavior. These findings reflect increasing awareness and acceptance among the younger generation, influenced by cultural heritage and global trends promoting natural remedies. The ongoing COVID-19 pandemic has further encouraged public interest and trust in herbal medicines due to their accessibility, affordability, and perceived safety compared to chemical drugs. In addition, government policies such as the National Master Plan for Thai Herbal Medicine Development (2017–2021) have played a crucial role in promoting the use of herbal medicine across communities. The results of this research provide fundamental insights into youth behavior towards Thai traditional medicine and serve as a guideline for promoting knowledge, positive attitudes, and sustainable practices in other regions. This will support health self-care and help preserve the cultural wisdom of Thai traditional medicine for future generations.

Conflict of Interest

The author`s declare no conflict of interest.

Authors' Declaration

The authors hereby declare that the work presented in this article is original and that any liability for claims relating to the content of this article will be borne by them.

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