

The Use of Herbs According to The Perspective of Traditional Malay Medicine in Selangor, Malaysia

Muhammad Hannan Abdul Aziz¹, Ahmad Nasir Mohd Yusoff¹
& Mohamad Maulana Magima²

¹Department of Government and Civilizational Studies, Faculty of Human Ecology,
Universiti Putra Malaysia, ²Faculty of Humanities, Management and Sciences, Universiti
Putra Malaysia Bintulu Sarawak Campus

Corresponding Author Email: ahmadnasir@upm.edu.my

To Link this Article: <http://dx.doi.org/10.6007/IJARBS/v13-i18/19933> DOI:10.6007/IJARBS/v13-i18/19933

Published Date: 08 December 2023

Abstract

Herbal medicines have long been a cornerstone of conventional medicine and remain widely used today. In Malay traditional medicine, herbs are the primary component that are usually used to treat various ailments. However, there is still confusion among some Malaysians regarding the functions and benefits of traditional medicine such as herbs as treatment option, most probably due to limited information on the application of herbs in treating diseases. Hence, this study aims to identify the types of herbs used as well as the factors of herbal usage in the Central Zone of Selangor. To obtain such data, a qualitative research methodology was adopted, involving literature review, distribution of surveys to 327 respondents and interviews of several respondents. The study's findings provide relevant information on the various types of herbs used in Selangor as well as their applicability in treating various diseases. This study conclusively supports the efficacy of traditional Malay herbal remedies in treating diverse diseases prevalent in Selangor. Amidst globalization, it is vital for society to earnestly embrace herbal usage for fostering a healthy and thriving life. The study's findings offer valuable insights into the effective utilization of herbs as alternative treatments, complementing modern therapies by the Ministry of Health Malaysia. Embracing this knowledge can pave the way for a comprehensive and holistic approach to healthcare, benefiting the community at large.

Keywords: Herbs, Traditional Malay Medicine, Treatment, Theory of Plan Behavior, Herbs Medicine

Introduction

There is estimated to be 30,000 plant species, and approximately 10% of all plants, are used for medicinal purposes globally (Farnsworth & Soejarto, 1991; Wantanabe, 2000). Among these species, 65 are indigenous to Asia (Karki & Williams, 1999). The debate regarding the

use of herbs in healthcare, particularly in the context of Malay traditional medicine, is vital and constantly evolving.

According to Faisal (2012), traditional Malay medicine is a collection of procedures developed to address issues that people encounter, whether they are well or ill. Certain people have been following this way of life for many years. Besides, Chooi (2004) believed that herbs refer to any type of plant that can be used as a cure or remedy for a health problem while according to Harun (2015), traditional Malay medicine has a complete system and approach for treating or curing a disease. It includes analyzing the causes of body imbalances, taboo practices, and appropriate methods for maintaining health.

Additionally, this system includes physical treatment, instructions on how to take and use herbs, specific readings, taboos, and tips (Jamal et al., 2011). For instance, there are certain illnesses that modern medicine fails to treat but can be effectively managed through traditional Malay medicine (Baharudin, 2019). A broader perspective was presented by Ahmad (2019), who pointed out that traditional medicine has yet to be recognized as a crucial component of health treatment methods. This study is conducted as effort to broaden scientific knowledge of traditional Malay medicine in Malaysia.

Literature Review

In the past, Khairunnisa et al (2016) collected and assembled hadiths about how to heal physical ailments in al-Sahihain. They also concentrated on establishing the distinction between the herbal remedies and the physical therapeutic modalities suggested by the Prophet SAW. In such a circumstance, the continuous mention of hadiths relating to herb-based tactics throughout both sahih books proves their certain truth.

In addition, a study by Yusof et al (2016) used al-Sahihain's hadith as guidance and focused on the use of plants in the treatment of ten physical human ailments. Without focusing on the efficacy of employing herbs for healthcare, the study also proved that the herbal treatment strategy appropriately corresponds with the Sunnah of the Prophet SAW, as evidenced by the hadiths.

Inductive and deductive analyses are used in conjunction with the selection of two hadiths as part of the research approach used in this study. According to Yusof et al (2016), these two hadiths were chosen from well-known narrators Abu Abd Allah Muhammad bin Ismail and Abu al-Husayn Muslim bin al-Hajjaj al Qushayri al-Naysaburi. According to the study's findings, herbal treatment is in fact consistent with the Prophetic Sunnah, which is supported by a number of hadiths that discuss the management of ten physical human diseases, including headaches, leprosy, head lice, infectious eye pain, stomach pain, wounds, fever, and others (Yusof et al., 2016).

A study by Ridzuan et al (2019), titled Bibliometric Analysis of Herbal Applications in an Academic Environment, also looked at the idea of bibliometrics in analysing academic studies involving herbs and used quantitative methods and analysis to gauge the level of productivity and contribution of scholarly works in this research. According to the study, several herbal plants are generated at the same time. This information is used as the main source of reference for academics or herbalists researching herbal ingredients and is essential to the field of herb research (Ridzuan et al., 2019).

Methodology

Basically, this study was conducted among people residing in the state of Selangor, with a total population of 5,694,945 (Department of Statistics Malaysia, 2022). involving a sampling size of 327 respondent samples. Questionnaires were collected and analyzed based on the

framework proposed by (Krejcie and Morgan, 1970). These numbers indicate that the sampling of the study meets the validity and reliability requirements. The selection of the Selangor state district as the study location was justified by the ease of sampling and availability of the information sources related to the study topic. Four respondents in all, separated into two groups: patients and conventional medical professionals with expertise in herbal treatment, were interviewed by the researchers. Individuals from the neighbouring villages in the Selangor region who have experience and information about the use of herbs as a means of disease treatment participated in the patient interviews at the teaching hospital of UPM.

Theoretical and Conceptual Framework

In this study, the Theory of Planned Behavior introduced by Ajzen (1985) has been adopted by the researcher as the theoretical framework. The theory was selected due to its relevance and applicability in determining the effectiveness and factors influencing an individual's practice and use of medicine. According to Ajzen (1969) the theory proposes that a person's behavior or practice can be predicted by their desire or intention to engage in the behavior or practice, as well as their control over it. Desire is determined by the individual's attitude towards the behavior or practice, subjective norms, and perceived behavioral control.

According to Ajzen (1991), the main component in planned behaviour, is a person's intention to carry out a specific behaviour. The degree to which people are prepared to try and the amount of effort they intend to put out in executing that behaviour are both reflected in this intention, which also acts as a marker of the motivation that influences behaviour. Intention is assumed to encompass the motivational factors that influence behavior and is an indication of the level of effort people are willing to put in to implement the behavior and decision through action. The stronger an individual's intention towards the practice of traditional medicine, the more likely it is that their attitude towards the effectiveness of herbs as a treatment material is positive. Additionally, Ajzen and Fishbein (2000) also referred "subjective norm" as a person's sense of the social pressure they feel from significant others to engage in a particular behaviour. Adults were shown to be motivated to engage in desired behaviour by subjective standards, according to (Fishbein & Rhodes, 1999).

Findings

The types of herbs used among the respondents

A true image of the varieties of herbal usage in traditional medicine among the population in the central zone, namely the state of Selangor, has been painted using the sample of this study, which includes 10 items. These results show that a small portion of people of Selangor still practice and maintains herbal-based therapy, adhering to hereditary traditions, showing that traditional therapies are still relevant. This group continues to uphold the importance of believing in ancestors' knowledge and wisdom. Herbal medicine is used in many medical specialties to treat illnesses and is seen to be an effective treatment. These techniques are useful for boosting wellbeing because they are tailored to the particular conditions that are experienced. The shift in the utilization of herbs within society has transformed from being a dietary ingredient to a vital component of health products, as noted by (Shahabuddin, 2001). This finding is supported by data in Table 1.

Table 1

Name of herbs used in Selangor

Bil	Types of herbs	N	%
1	Roselle	19	5.8
2	Mint	27	8.3
3	Basil seeds.	31	9.5
4	Rosemary	27	8.3
5	Cilantro leaves	51	15.6
6	Andrographis paniculata	41	12.5
7	Butterfly Pea	35	10.7
8	Edible lemongrass	37	11.3
9	Ekor anjing	22	6.7
10	aloe vera	37	11.3
	Total	327	100

Based on Table 1 above, the percentage of each herb used varies among the respondents in Selangor district. The highest percentage of usage was for coriander leaves, with 51 respondents totaling 15.6 percent (referring to item 5). This was followed by earth bile (item 6) with 41 respondents totaling 12.5 percent. Lemongrass and aloe (items 8 and 10) were used by 37 respondents, representing 11.3 percent of the total respondents. Basil plants (item 3) were used by 31 respondents, accounting for 9.5 percent. Butterfly Pea (item 7) was used by 35 respondents, representing 10.7 percent of the total respondents, while mint and rosemary (item 4) were used by 27 respondents, totaling 8.3 percent.

Finally, the lowest item was the growing mint, with only 19 people (5.8 percent) using it in their daily life. The possible reason on the coriander usage is the highest is the fact that most people today use the plant more as an ingredient in their daily cooking. Additionally, based on the researcher's survey while visiting the respondents' homes, it was observed that some of them have their own plants around their residential areas. According to Shahibuddin (2001), from ancient times until the end of the 19th century, most medicines were made up of fresh plants or those that had been dried or taken from certain parts of the plant. Therefore, the study shown that herbal plants have become a culture that was practiced by people in the past and is still relevant and practiced to this day among the people of the state of Selangor.

The result of the researcher's interview with a respondent who will undergo surgery at the Universiti Putra Malaysia Teaching Hospital (HPUPM), revealed that he became aware of the benefits of coriander leaves in reducing the complications of kidney disease and began to incorporate it into his daily cooking as effort to control and treat his health conditions. As for Shahibuddin (2001), he stated that humans have been able to identify and determine the uses of various types of plants for centuries. In this regard, humans are adapted in extracting nutrients from nature for their benefits even without a referral from a doctor or medical expert, such as using fruits to make refreshing drinks, leaves that can heal, or even roots that can be used for medicinal purposes.

In this regard, the feedback and controlled decisions have resulted in individual actions to continue the practice of using herbal plants for treatment. The belief in individual control is closely related to the consumption of herbal plants in daily diets, which is an important factor in individual efforts to ensure good health. This is supported by Azwani (2007) statement that consumers in Western countries have started to trust and switch to

herbal medicine because it is believed to be safer, with fewer side effects and lower costs compared to modern medicine.

Table 2

Descriptive Analysis of Different Types of Diseases from the Respondents

Bil	Types of diseases.	Bil (N)	Persent (%)
1	Asthma and Gastric	114	34.9
2	High blood and low blood	86	26.3
3	Obesity/Gout/allergic/arthritis	71	21.7
4	None	56	17.1
	Total	327	100

The table 2 shows the different types of diseases commonly experienced by patients. Referring to item 1, majority of the respondents had health problems such as asthma and gastritis which accounts for 34.9 percent and representing a total of 114 respondents. This is followed by high blood and low blood pressure (Item 2) which is the second highest percentage (26.3 percent) with 86 respondents, in addition, there are also other types of diseases such as obesity, gout, allergies, and arthritis problems which some people suffered from, totaling 21.7 percent, representing a total of 71 respondents. Those who do not have any disease constitute the lowest number at 56, which is equal to 17.1 percent of the total number of respondents.

The present study indicates that there are multiple factors that encourage the utilization of herbs as treatment options for patients. Not only are these herbs widely available, but they are also effective in treating various illnesses among the Selangor community. The herbs mentioned in the study possess unique properties that have been utilized by communities in the central area of the state of Selangor.

According to Ariffin (2016), his study has proven an increase in the use of Traditional and Complementary Medicine (TCM) among patients, particularly those suffering from chronic diseases in Malaysian public hospitals. Additionally, the popularity of TCM suggests that patients prefer a more holistic approach to healthcare, demonstrating the significance and high demand for TCM as a treatment method (Hasan et al., 2009, 1152-157). Such findings are supported by researcher interviews with Adi Yasran (2022), who stated that the duration of treatment varies depending on the type of herb, disease, and treatment method used.

Therefore, Azizah (2001) asserts that since ancient times, people have understood and assessed the advantages of numerous plant species. In this regard, even without the assistance of doctors or other medical professionals, people have been clever in utilising the advantages of nature for their own well-being based on experience, such as employing fruits for reviving beverages, leaves as healing agents, and roots as treatments. Talib et al (2020) believed that individuals understand an action or activity that is performed with flexibility and an open expression of feelings.

For instance, herbal plants like ginger (*Zingiber officinale*), lemongrass (*Cymbopogon citratus*), coriander leaves (*Coriandrum sativum*), black pepper (*Piper nigrum*), and other plants have been documented to be utilised as alternatives in the community for treating ailments. For example, it has been demonstrated that ginger consumption may help to lessen the symptoms of digestive issues like bloating, stomach discomfort, and dyspepsia (Rayner

et al., 2008). However, there are some modern medicines that are incapable of completely curing the disease; instead, they only relieve symptoms. Nevertheless, the use of herbs in conjunction with the appropriate approach can be the cause of healing a disease. Although some traditional treatments may take a longer time, they can still control and cure diseases.

Table 3

Descriptive Analysis of Distribution of Recovery Period of Diseases upon using Herbal plants as Treatment Option from the Respondents.

Bil	Time frame	Bil (N)	Persent (%)
1	3 days	68	20.8
2	1 week > 2 week	129	39.4
3	A month > upward	88	26.8
4	A year >	42	12.8
	Total	327	100



Based on the table above, majority of respondents, (39.4 percent) representing 129 respondents, recovered after 1-2 weeks after using herbal plants (referring to item 2), while the minority of 12.8 percent, representing 42 respondents, took a year or more to recover (referring to item 4). However, it should be noted that the time it takes to recover also depends on the type of illness faced by the respondent.




According to Ariffin (2016), it has been proven that there was an increase in the use of Traditional and Complementary Medicine (TCM) among patients, particularly those suffering from chronic diseases in Malaysian public hospitals. Additionally, the popularity of TCM suggests that patients prefer a more holistic approach to healthcare, demonstrating the significance and high demand for TCM as a treatment method (Hasan et al., 2009). Such findings are supported by Adi Yasran (2022), who stated that the duration of treatment varies depending on the type of herb, disease, and treatment method used. Although some traditional treatments may take a longer time, they can still control and cure diseases. For example, health products made from natural herbal plant ingredients, such as Omega 3 extracted from 'Pegaga Gajah' has been effective in treatment of hypotension and hypoglycemic (Uddin et al., 2014).




The results of the study indicate that the Malay community in Selangor still uses 10 identified herbal plants. Table 4 presents the scientific name, active ingredients, medicinal uses, and suitable methods of each herb for treating various diseases. Each herbal plant possesses unique properties that can benefit the internal and external health of the human body.



Table 4

Information on 10 Herbs Related to Their Content, Functions, Disease Treatments, and Testimonials

Types of Herbs	Content	Functions	Types of Diseases
<p style="text-align: center;">Roselle <i>(Hibiscus sabdariffa L)</i></p>  <p style="text-align: center;">Figure 1: Roselle. (2018). Retrieved from Freepik: https://www.freepik.com/premium-photo/roselle-fruits-hibiscus-sabdariffa-l-thailand_2772620.htm</p>	<p>This item rich in antioxidants and flavonoids, as well as being a good source of riboflavin, carotene, calcium, iron, and protein. (Qi et al., 2005).</p>	<p>This herb can be consumed as food, added to herbal drinks, incorporated into hot and cold beverages, utilized as a flavouring agent in the food industry, and even used as herbal medicine. (Abdalbasit et al., 2017).</p>	<p>The plant accelerates blood flow to the surface of the skin and widens the pores to cool the skin. Its leaves and flowers are used as a tonic tea for treating indigestion and diarrhea. (Qi et al., 2005).</p>
<p style="text-align: center;">Mint (<i>Mentha arvensis</i>)</p>  <p style="text-align: center;">Figure 2. Mint. (2020). Buy Essential Oils Here. Retrieved from: https://buyessentialoilshere.com/mentha-spicata-aka-spearmint/</p>	<p>This herb rich in antimony, calcium, iron, magnesium, vitamins riboflavin, folic acid, niacin, and vitamin C (Hussain et al., 2010).</p>	<p>Flavors for cooking, vinegar, jelly and ice drinks (Sajid Habib, 2021).</p>	<p>Strong anti-inflammatory, antioxidant, anticancer, and antibacterial activity (Khanuja et al., 2000).</p>
<p style="text-align: center;">Basil Seeds (<i>Ocimum basilicum linn</i>)</p>	<p>Chemical content of basil ocimene,</p>	<p>Medicines have been traditionally</p>	<p>Basil seeds can be used as a medicine</p>

 <p>Figure 3: Basil seeds. Iannotti, M. (2017). Retrieved from: The Spruce: https://www.thespruce.com/the-scented-herb-garden-1402634</p>	<p>Careen, methylchavicol, eugenol, eugenol methyl ether, anethole, methylcinnamate, 3-hexen-1-ol, 3-octanone, flavonoid and urfural (Arief, t.t).</p>	<p>used to provides evidence-based scientific confirmation of some of their actions and therapeutic uses as described in literary ethnobotany. (Alia Bilal et al., 2012).</p>	<p>to treat eye inflammation . (comeal opacity) (Drs. H. Arief Hariana, t.t.). The decoction made from basil can treat coughs. (Zakaria, 2010).</p>
<p>Rosemary (<i>Salvia rosmarinus</i>)</p>  <p>Figure 4. Rosemary. Self-made image</p>	<p>Rosemary has antifungal, antibacterial, anti-inflammatory, antitumor, antidepressant, antiulcerogenic and antioxidant (Begum et al., 2013).</p>	<p>Traditional medicine has been used to treat various health problems (Begum et al., 2013).</p>	<p>The plant has been traditionally used for treating inflammatory diseases, and including wound healing, treatment of skin cancer and mycosis (Lucas Malvezzi et al., 2020)</p>
<p>Cilantro leaves (<i>Coriandrum sativum</i>)</p>  <p>Figure 5: Coriander leaves. (2018). HooksGreen. Retrieved from: https://www.hooksgreenherbs.com/coriander-um-</p>	<p>Protein, fat, iron, potassium, Calcium, Magnesium, zinc, Vitamin C, Niacin, Vitamin B-12, Vitamin A, RAE, Vitamin A, IU, Vitamin D, Vitamin (D2+D3) (Bhat et al., 2013).</p>	<p>They possess medicinal properties, as the most important and Coriander seed extract has been traditionally used as an herbal medicine for diabetic patients. (Bhat et al., 2013)</p>	<p>Diabetes, indigestion, bloating, insomnia, kidney disorders, loss of appetite, and as a diuretic (Aissaoui, 2008)</p>

<p>sativum-cilantro- coriander-buy-herb-seeds-online/</p>			
<p>Andrographis paniculata <i>(Andrographis paniculata)</i></p>  <p>Figure 6: Andrographis paniculata. iSelf-made image.</p>	<p>It is rich in three main compounds, namely diterpenoids, flavonoids, and polyphenols (Thohirah et al., 2019)</p>	<p>The pharmaceutical, pharmacological compounds serve as therapeutic agents for treating various diseases (Thohirah al., 2019).</p>	<p>The leaves are also used as medicine to lower high blood pressure and treat diabetes. (Noraida, 2014).</p>
<p>Butterfly Pea (<i>Clitoria ternatea</i>)</p>  <p>Figure 7: Butterfly Pea. Self-made image</p>	<p>Phytochemical analysis of the roots showed the presence of ternatin, alkaloids, flavonoids, carbohydrates, proteins, resins, starch, (Uma et al., 2009).</p>	<p>The roots are used as a diuretic and the seeds as a cathartic (Evans, 2002)</p>	<p>migraine, sore throat, eye infections, skin diseases, asthma, j fever, urinary tract infections, central nervous system disorders (Girish et al., 2010).</p>
<p>Edible lemongrass (<i>Cymbopogon citratus</i> (DC)</p>  <p>Figure 8: Edible lemongrass. Self-made image.</p>	<p>This contains various essential nutrients such as vitamins A, C, E, calcium, folate, alkaloids, zinc, magnesium, minerals, and phytonutrients (Christopher et al., 2015).</p>	<p>It has its own unique physicochemical properties, including taste, lemon aroma, color, strength, and intensity (Dangupen et al., 2009).</p>	<p>C. Citrat us It has healing properties and helps reduce problems such as bloating and stomachache, fever, and pain, and manages arthritis,</p>

			nervousness, malaria, and diabetes (Christopher et al., 2015).
<p>Ekor anjing (<i>Heliotropium indicum</i>)</p>  <p>Figure 9: Ekor Anjing. Self-made image</p>	Alkaloids, flavonoids, tannins, phenols, saponins, and glycosides (Sarkar, 2021)	Almost every part of this plant is used for various traditional treatments (Chee, 2012)	Cough with phlegm, asthma, skin itchiness, eye pain, swollen mouth and eczema, as well as promoting urination. (Chee, 2012).
<p>Aloe vera (<i>Aloe vera</i>)</p>  <p>Figure 10: Aloe vera. Self-made image</p>	Chemically, aloe vera consists of 90% water, 4% carbohydrates, and the rest is composed of minerals. It contains Vitamin B12, Vitamin A, B-Group vitamins, Vitamin C, Vitamin E, and folic acid (Tajeswari et al., 2012).	It is considered the best herbal answer for supporting overall health and body healing mechanisms, the body's systems so they can function optimally and stay healthy (Tajeswari et al., 2012).	For cough, wounds, ulcers, gastritis, diabetes, cancer, headaches, arthritis, immune system deficiencies, and many other conditions when taken internally (Tajeswari et al., 2012)

Factors of Herbal Usage Among Respondents

Subjective Norms in Society Regarding Herbal-based Treatment

Subjective norms refer to the social factor term that denotes an individual's perception of social pressures received from people they consider important in their lives, whether to perform or not to perform a certain behavior (Ajzen & Fishbein, 2000). According to Fishbein & Rhodes (1999), it was found that among adults, subjective norms serve as motivators for the implementation of desired behaviors. Meanwhile, understanding the perception of the effectiveness of herbal usage in practice has been defined as a positive or negative evaluation of an object or action (Eagly et al., 1993). Based on research findings, it has been found that the cultivation and usage of herbal plants in the daily lives of communities have significantly contributed to the context of the specific benefits of herbs contained within them to produce natural remedies. The text of the conversation between the researcher and the respondent is as follows.

"I have planted various herbal plants. Such as gotu kola, betel leaf, lemongrass, turmeric, ginger, tongkat ali, and cat's whiskers. We often use these plants as ingredients in cooking, not only for flavor but also for their medicinal properties in treating various ailments. We believe that traditional medicinal practices are indeed very helpful"

According to Braun (2012), family and close friends in the immediate environment also play a crucial role in influencing individuals to use herbs. If family members or close friends have tried herbs and experienced positive benefits, it has motivated individuals to use them.

The Element of Desire (Intention) in Society Regarding Herbal-based Treatment

This study found that the desire (intention) to practice traditional medicine has been defined as an individual's desire to engage in a specific action or practice (Ibid, 11-39). The results of interviews with respondents indicated that some individuals have different intentions when faced with health problems. Interviews with five respondents revealed that those experiencing issues such as diabetes, high blood pressure, kidney stones, fever, and the like have the intention to recover and maintain their health from those diseases. Some individuals also showed a greater interest in treatment using herbal remedies that they grow themselves and process into medicine.

For example, the use of herbal plants such as lemongrass (*Cymbopogon citratus*), coriander leaves (*Coriandrum sativum*), black pepper (*Piper nigrum*), ginger (*Zingiber officinale*), and other plants has been known to be used as alternatives in treating illnesses by the community. The use of ginger, for instance, has been shown to have the potential to reduce symptoms of digestive disorders such as bloating, abdominal discomfort, and dyspepsia (Rayner et al., 2008). The text resulting from the researcher's interview with the respondents is as follows.

"If at home, my wife cooks with healthy foods that are rich in calcium, like milk, or dishes that use ingredients containing herbs or plants. For example, at home, my wife often cooks using coriander leaves, which we frequently use. In soups, for instance. Because I have to watch my diet, I can't eat things that worsen my condition. That's why coriander leaves are common, and there are many other fresh vegetables that I consume."

Furthermore, *Curcuma longa* or turmeric has been widely used in traditional medical practices to treat various digestive issues such as indigestion, bloating, and inflammation of the digestive system, in addition to its immune-stimulating effects on humans (Wu, 2003). Additionally, the use of *Zingiber officinale* or ginger has long been employed to alleviate nausea and vomiting, particularly related to motion sickness, pregnancy, or chemotherapy side effects (Ernst & Pittler, 2000).

Attitude Towards Behavior in Society Regarding Herbal-based Treatment

According to Ajzen (1985), an individual's attitude plays a crucial role in influencing human behavior. This attitude directs individuals to either engage or not engage in a particular behavior. To actualize the desired behavior, individuals need to recognize and effectively control the desired behavior, with strong intention being important (Ajzen & Manstead, 2007). In the context of herbal usage, individual attitudes and behaviors can be linked to the strength of intention reflected through attitudes towards the behavior, such as seeking appropriate herbal plants for treating specific ailments. Therefore, the element of attitude

towards behavior in society regarding traditional treatment practices holds significant importance.

Individual attitudes towards traditional treatment practices can provide insights into their perspectives and inclinations towards using herbs as an approach to treating illnesses. Positive attitudes towards these practices indicate individuals' tendencies to value and embrace traditional values and believe in the effectiveness of herbs as valuable sources of healthcare. These positive attitudes also influence individuals' intentions to adopt traditional treatment practices as part of a holistic approach to maintaining their health and well-being.

Furthermore, respondents' beliefs in the usage of herbs with distinct characteristics such as roots, stems, leaves, and flowers of herbal plants indicate the high medicinal content that can be utilized through various methods such as cooking, consuming, boiling, applying, and more. This is as the text of the conversation between the researcher and the respondent is as follows.

"Since I was affected by this illness, such as kidney stones and bloated stomach, there have been old folks who advised me to try practicing herbal remedies. I consume garlic, lemongrass, and ginger consistently, and God willing, in the long run, it will have a healing effect on my uncle's condition. In terms of effectiveness, the use of herbs as a supportive treatment surpasses pharmaceutical drugs and hospitals. Uncle also consistently follows the method of extracting ginger in water, letting it sit for a few minutes, and then drinking it. Additionally, using lemongrass helps alleviate my uncle's health issues. These are tips passed down from the past and even doctors have recommended that I practice them".

For example, according to Van Wyk et al (2018), the usage of licorice root has long been employed to relieve coughs, reduce inflammation, and maintain digestive health. Tongkat Ali stems are used as tonics to enhance male vitality, address erection issues, and boost testosterone production. Ginkgo Biloba leaves are used to improve blood circulation, enhance brain function, and combat signs of aging. Chamomile flowers act as natural antidepressants, relieve anxiety, and soothe the nervous system, while Valerian root can aid with insomnia, alleviate anxiety, and assist in relaxation. Studies show that crucial information about herbal usage and its effectiveness is obtained through social media, and the opinions of the surrounding community have influenced patients to use herbs as a treatment method to heal their ailments.

In summary, individuals experiencing illnesses exhibit attitudes that lean towards self-discipline in properly and consistently practicing the usage of herbs based on their types, benefits, and functions for the purpose of treating diseases and achieving recovery. However, to implement this herbal usage, patients need to have a deep understanding of the functions and benefits of herbs in treating their specific ailments.

Conclusion

In short, this study supports the traditional Malay medical practice of using herbal remedies to treat a variety of diseases in the Selangor and highlights the importance of continuing to use natural resources and traditional medical procedures. However, caution should be taken when using herbal remedies due to their potential risks and limitations. Overall, traditional medicine can be an effective complement to modern healthcare practices when used appropriately.

In this study, it was found that the usage of herbs plays a role in the field of medicine, particularly in contributing to disease treatment among people of Selangor. Both in the

context of scientific and traditional perspectives, they need to be integrated into medical science to address various health issues that arise. In the current era of globalization, it is important for society to pay serious attention to the usage of herbs in leading a healthy and prosperous life. The findings of this study provide relevant information for the understanding and utilization of herbs as effective and relevant alternative treatments in society, in addition to the use of modern treatments provided by the Ministry of Health Malaysia. Lastly, this study is considered a stepping stone that provide preliminary data for future research. In this case, a study that take account differences in practices and traditions among the different ethnic groups in Malaysia can be carry out to compare the use of herbal medicine in Malaysia.

References

- Abu, B. (2019). Pengamal perubatan tradisional Melayu bukan bomoh. <https://www.sinarharian.com.my/article/51350/EDISI/Selangor-KL/Pengamalperubatan>
- Adi Yasran. (2022). Keberkesanan Penggunaan Herba Dalam Perubatan. Universiti Putra Malaysia.
- Ahmad, K. (2019), Understanding the Perception of Islamic Medicine Among the Malaysian Muslim Community. *Journal of Religion and Health (JORH) Springer US*, (2017), 1-15.
- Aissaoui, A., El-Hilaly, J., Israili, Z. H., Lyoussi, B. (2008). Acute diuretic effect of continuous intravenous infusion of an aqueous extract of *Coriandrum sativum* L. in anesthetized rats. *J.Ethnopharmacol.* 115, 89–95.
- Ajzen, I. (1985). From Intentions to Actions: A Theory of Planned Behavior. In: Kuhl, J., Beckmann, J. (eds) *Action Control. SSSP Springer Series in Social Psychology*. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-642-69746-3_2
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Ajzen, I., & Fishbein, M. (1969). The prediction of behavioral intentions in a choice situation. *Journal of Experimental Social Psychology*, 5, 400-416.
- Akande, I.S., Samuel, T.A., Agbazue, U. (2011). Comparative proximate analysis of ethanolic and water extracts of *Cymbopogon citratus* (lemon grass) and four tea brands [J]. *Plant Sci Res*,3(4): 29-35.
- Azwani, F., & Aziz, A. (2007). Physiological Responses of *Misai Kucing* (*Orthosiphon stamineus* Benth) Under Different Light Intensities.
- Begum, A., Sandhya, S., Ali, S., Vinod, K. R., Reddy, S., & Banji, D. (2013). An in-depth review on the medicinal flora *Rosmarinus officinalis* (Lamiaceae). *Acta Sci Pol Technol Aliment.* 12(1):61-73. PMID: 24584866.
- Bhat, S. P., Kaushal, M., Kaur, & Sharma, H. K. (2013). Coriander (*Coriandrum Sativum* L.): Processing Nutritional and Functional Aspects. *African Journal of Plant science*. Department of Food Engineering and Technology, Sant Longowal Institute of Engineering and Technology, (Deemed to be University), Longowal-148106, Distt. Sangrur (Punjab), India.
- Bhowmik, D. (2012). *Aloe vera: The Miracle Plant Its Medicinal and Traditional Uses in India*. Tamil Nadu Agricultural University, Coimbatore, India.
- Bilal, A., Jahan, N., Ahmaed, A., Bilal, S. N., Habib, S., & Hajra, S. (2012). Phytochemical and pharmacological studies on *ocimum basilicum* linn - a review. Dept of Obstetrics and Gyneacology, M.I.J. Tibbiya College, Mumbai, India. Dept of Obstetrics and Gyneacology, Kashmir Tibbiya College, Srinagar, India. Dept of Obstetrics and Gyneacology, Govt. Nizamia Tibbi college, Charminar, Hyderabad.

- Dangupen, M. K., Januszewska, R., & Lino, L. L. (2009). Consumers behavior toward lemongrass (*Cymbopogon citratus*) tea in Eka
- De Macedo, L. M., Santos, E. M. D., Militao, L., Tundisi, L. L., Ataide, J. A., Souto, E. B., & Mazzola, P. G. (2020). Rosemary (*Rosmarinus officinalis* L., syn *Salvia rosmarinus* Spenn.) And Its Topical Applications: A Review. *Plants* (Basel). 9(5):651. doi: 10.3390/plants9050651. PMID: 32455585; PMCID: PMC7284349.
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Harcourt Brace Jovanovich College Publishers.
- Ekpenyong, C. E., Akpan, E., Nyoh, A. (2015). Ethnopharmacology, phytochemistry, and biological activities of *Cymbopogon citratus* (DC.) Stapf extracts. *Chin J Nat Med*. 13(5):321-37. doi: 10.1016/S1875-5364(15)30023-6. PMID: 25986281.
- Ernst, E., & Pittler, M. H. (2000). Efficacy of ginger for nausea and vomiting: a systematic review of randomized clinical trials. *British Journal of Anaesthesia*, 84(3), 367-371.
- Evans, W. C. (2002). *Trease and Evans Pharmacognosy*. 15th Edition, W.B Saunders, Edinburgh, 585.
- Faisal, A., & Wahidah, N. F. (2012). *Perubatan Melayu Tradisional: Kitab*. Akademi Pengajian Islam, Universiti Malaya, Kuala Lumpur.
- Farnsworth, N. R., & Soejarto, D. D. (1991). Global importance of medicinal plants. In: Akerele O., Heywood V. and Syngae H. (eds) *The Conservation of Medicinal Plants*. Cambridge University Press, Cambridge, UK, 25-51.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Addison-Wesley.
- Gupta, G. K., Chahal, J., & Bhatia, M. S. (2010). *Clitoria ternatea* (L.): old and new aspects. *Journal of Pharmacy Research*. 3, 2610-2614.
- Habib, H. (2021). *Pudina (Mentha) in Traditional Medicine: A Review Introduction*. IBT Hkm Rais Unani Medical College & Hospital. Karol Bagh, New Delhi.
- Hassan, A. Z. (2004). *Keberkesanan Penggunaan Teknologi Maklumat Dalam Pengajaran dan Pembelajaran Sekolah Menengah Bestari*. Projek Sarjana. Universiti Tun Hussein Onn.
- Hussain, A. I., Anwar, F., Nigam, P. S., Ashraf, M., & Gilani, A. H. (2010). Seasonal variation in content, chemical composition and antimicrobial and cytotoxic activities of essential oils from four *Mentha* species. *Journal of the Science of Food and Agriculture*., 90(11), 1827 - 1836.
- Jamal, J. A., Ghafar, Z. A., & Husain K. (2011). Medicinal plants used for postnatal care in Malay traditional medicine in the peninsular Malaysia. *Pharmacognosy Journal*. 3(24), 15 – 24
- Jabatan Statistik Malaysia. (2022). *Perangkaan Selangor, Malaysia*. Retrieved from <https://ms.zhujiworld.com/my/971334-selangor/>
- Jin, C. B. (2012). *Pelindung Pembentuk Ulser*. Dewan Kosmik. Majalah Sains dan Teknologi
- Karki, M., & Williams, J. T. (1999). Priority species of medicinal plants in South Asia. Medicinal and Aromatic Plant Program in Asia (MAPPA). International Development Research Centre (IDRC), New Delhi, India.
<http://idlbnc.idrc.ca/dspace/bitstream/10625/21847/1/113541.d>
- Yusoff, K. M., Ahmad, K., & Ariffin, M. F. M. (2016) *Rawatan Herba Dalam Mengubati Penyakit Fizikal: Analisis Menurut Al-Sahihayn*. Akademi Pengajian Islam, Universiti Malaya (UM), 50603, Kuala Lumpur.
- Khanuja, S. P. S., Shasany, A. K., Srivastava, A., & Kumar, S. (2000). Assessment of genetic relationships in *Mentha* species. *Euphytica*, 111(2), 121-125.

- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement* 30(3): 607-610
- Kurniasih. (2012). Ekstraksi Antioksidan Dari Daun Kari. Politeknik Negeri Lhokseumawe. *Jurnal Sains dan Teknologi Reaksi*.
- Mohamed, A. B. M. E. S., & Mirghani. (2017). Hibiscus Sabdariffa L. Roselle. Unconventional Oilseeds and Oil Sources.
- Ong & Chooi, H. (2004). Buah : khasiat makanan & ubatan / Ong Hean Chooi. Kuala Lumpur: Utusan Pub. ISBN 9676115606 (pbk). <http://myagric.upm.edu.my/id/eprint/6337>
- Piah, H. M. (2015). Ilmu perubatan Melayu tradisional dari naskhah-naskhah lama. *International Journal of the Malay World and Civilisation (Iman)*. 3(3): 3-1
- Qi, Y., Chin, K. L., Malekian, F., Berhane, M., & Gager, J. (2005). Biological characteristics, nutritional and medicinal value of roselle, Hibiscus sabdariffa circular—urban forestry natural resources and environment. 604.
- Ridzuan, R. N., Fauzi, N., Amat, R. A., & Ghazali, N. Z. M. (2019). A Bibliometric Study towards the Application of Herbs in an Academic Environment. *Khazanah Al-Hikmah: Jurnal Ilmu Perpustakaan, Informasi, Dan Kearsipan*, 7(1), 23-37. <https://doi.org/10.24252/kah.v7i1a3>
- Sarkar, C., Mondal, M., Khanom, B., Hossain, M. M., Hossain, M. S., Sureda, A., Islam, M. T., Martorell, M., Kumar, M., Sharifi-Rad, J., Al-Harrasi, A., Al-Rawahi, A. (2021). Heliotropium indicum L.: From Farm to a Source of Bioactive Compounds with Therapeutic Activity. *Evid Based Complement Alternat Med*. 2021:9965481. doi: 10.1155/2021/9965481. PMID: 34158818; PMCID: PMC8187075.
- Shahibuddin, N. A. (2001). Jenis-jenis tanaman herba ubatan tempatan dan nilai-nilai perubatannya. Pusat Pengajian Perumahan, Bangunan dan Perancangan, Universiti Sains Malaysia Pulau pinang
- Talib, N., Aina, F., Mohd. A., & Nor, H. (2020). Persepsi Masyarakat dan Pesakit Terhadap Kesihatan Mental. *Jurnal Wacana Sarjana*, 4(1), 1 -13. Retrieved from <https://spaj.ukm.my/jws/index.php/jws/article/view/261>
- Uma, B., Prabhakar, K., Rajendran, S. (2009). Phytochemical Analysis and Antimicrobial Activity of Clitoria ternatea Linn against Extended Spectrum Beta Lactamase Producing Enteric and Urinary Pathogens, *Asian Journal of Pharmaceutical and Clinical Research* 2(4), 9496.
- Van Wyk, B.-E., & Wink, M. (2018). Medicinal Plants of the World: An Illustrated Scientific Guide to Important Medicinal Plants and Their Uses (Edisi ke-2). Timber Press
- Watanabe, T. (2000). Field survey of the Medicinal Plant Resources in the Himalayas and their Conservation. In: Watanabe, T., Takano, A., Bista, M.S., Saiju, H.K. (Eds.)
- Yusoff, K. M., Ahmad, K., & Ariffin, M. F. M. (2016). Rawatan Herba Dalam Mengubati Penyakit Fizikal: Analisis Menurut Al-Sahihayn. Akademi Pengajian Islam, Universiti Malaya (UM), 50603, Kuala Lumpur.
- Zakaria, M., & Mohd, M. A. (2010). Traditional Malay medicinal plants ltnm.