

# Factors that Influence COVID-19 Patients to Choose Herbal Medicines

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**Abstract:** This research paper aims to study the factors that drive COVID-19 patients to take herbal supplements to find out the reasons behind the consumption of herbal supplements as the first choice of medicine. Researchers conducted the research via online interviews and online questionnaires with 30 participants who were COVID-19 patients. Factors that resulted in COVID-19 patients choosing to take herbal medicine are divided into three areas: the efficacy of herbs, properties of herbs, and access to herbal products. It was done by analyzing the data using the number of respondents. The results showed that most respondents were female (18 people), followed by 12 males. The majority of respondents were 18-35 years old, numbering 13 people, followed by the age range of 36-55 years, amounting to 10 people. Most respondents were at the bachelor's degree level (17 people), followed by ten people with qualifications lower than a bachelor's degree. Most respondents had an average monthly income of fewer than 10,000 baht (15 people), followed by 10,001 - 30,000 baht (12 people). Regarding the properties of herbal medicines, 25 respondents commented that they have healing properties of the side effects of COVID-19. In addition, all respondents agreed that herbal medicines are reliable and safe. Regarding price, 19 respondents stated that herbal medicines were reasonably priced, while 11 indicated their prices were just acceptable. Lastly, 23 patients responded that they received medicinal advice from doctors to use herbal medicines.

**Keywords:** COVID-19, COVID-19 patients, herbal medicines

## 1. Introduction

At present, the epidemic situation of Covid-19 has spread all over the world. The number of infections during the epidemic increases day by day. Initially, there was no specific treatment for Covid-19, and there was no vaccine to treat it. Next, studying and researching medicines that can be taken to treat Covid-19 and vaccines to prevent Covid-19 are experimented with, resulting in the current situation of the Covid-19 epidemic that has a better situation around the world due to the decrease in the number of infected people, including a vaccine to prevent Covid-19.

Herbal medicines for the treatment of Covid-19 have properties to help relieve symptoms. There are many herbal medicines, such as *Andrographis paniculata*, ginger, and tamarind. Each type of herb can be produced as an effective drug for alleviating symptoms of Covid-19 infection and is affordable. Hence, Thailand, including hospitals and the Covid-19 patient care center units, chooses to use herbal medicines for COVID-19.

As a result, the researcher was interested in studying factors affecting patients with COVID-19 choosing to use herbal medicines. Researchers inquire about the factors in various aspects that make patients choose to consume herbs or substances extracted, be it the efficacy, properties, or affordability.

## 2. Objective

To study the factors that drive COVID-19 patients to choose to take herbal medicines.

## 3. Scope of the Research

### 3.1 Population and Sample

The sample group is 30 recovered COVID-19 patients.

### 3.2 Research Scope

This study was conducted to determine factors that drive COVID-19 patients to choose to take herbal medicines in order to treat this disease by dividing the factors into three areas: efficacy of herbs, properties of herbs, and access to herbal medicinal products. The research was concluded and analyzed by using data from the sample group.

## 4. Expected Benefits

To understand the factors that drive COVID-19 patients to choose to take herbal medicines.

## 5. Literature Review

From the research about "factors that influence COVID-19 patients to choose herbal medicines", the following are relevant to research information.

Theories of Thai Traditional Medicine [1] The Protection and Promotion of Thai Traditional Medical Knowledge Act, 1999, defines the meaning of Thai traditional medicine and states that medical procedures relating to examination, diagnosis, treatment, prevention, or promotion of human or animal health rehabilitation, midwifery, Thai massage, Thai traditional medicine production are based on knowledge or texts that have been passed on and developed successively.

Orathai Niamsuwan et al. (2012) [2] Survey of medicinal plants used to nourish the human body from the forest area in Ban Thung Sung Community, Ao Luek District, Krabi Province, was able to collect 33 types of medicinal plants,

classified into 23 families and 32 genera. The highest numbers were in the family Rubiaceae, with four species, Fabaceae 3 species, and families Acanthaceae, Annonaceae, Euphorbiaceae, and Gnetaceae, respectively, with two species each. Herbs for nourishment are classified as shrubs and popularly prepared by brewing. The medicinal plants found can be categorized into seven groups: strength maintenance, body maintenance, sexual maintenance, pain relief, fatigue, and elixir. Many plants were found to be used for strength maintenance, of which 17 were found. However, upon examination of the traditional Thai medical documents, only six plants were found to have the same utilization as mentioned in the document and have not yet been identified and tested using any pharmacological methods.

## 6. Methods

The study of the “factors that drive COVID-19 patients to choose to take herbal medicines” is conducted to determine the stated factors, as per the followings:

### 6.1 Study Information about COVID-19

Coronavirus is a virus that was first identified in 1960, but its origin is unknown. The virus can infect both humans and animals. Currently, there are six known variants of this virus. However, the variant that is currently spreading heavily around the world is the previously unknown one. Hence, this variant—the 7th strain—was referred to as the “new strain of coronavirus” and later officially named “COVID-19”.

#### 6.1.1 Symptoms of COVID-19

- 1) Have a fever
- 2) Sore throat
- 3) Dry cough
- 4) Runny nose
- 5) Shortness of breath

#### 6.1.2 Groups at risk of contracting COVID-19

- 1) Toddler
- 2) Elderly
- 3) People with congenital disease.
- 4) People with immune disorders.
- 5) People who are very overweight.

#### 6.1.3 Methods to prevent infection with COVID-19.

- 1) Avoid close contact with patients with cough, sneezing, runny nose, tiredness panting and sore throat.
- 2) Avoid traveling in risky areas.
- 3) Always wear a mask when being in public.
- 4) Be careful not to touch any surface because it may contain live germs, including things that people catch often.
- 5) Wash your hands regularly with soap and alcohol gel.



Example of public relations for observing symptoms of COVID-19 infection

Source: Sikarin Hospital

## 6.2 Studying herbs used to treat COVID-19 infection

6.2.1 "Fah Talai Jort" is classified as a bitter herb. In the cold medicine group, it has properties in Thai traditional medicine, used to relieve the symptoms of the flu, cough and sore throat. It is a herb that has been included in the National Essential Medicines List of 1999 (Herbal Medicine List) from the Ministry of Health in single dosage form from past to present. There have been extensive research studies on the herb *Andrographis paniculata*. There is supportive information from clinical research that the herb *Andrographis paniculata* is effective in treating symptoms of acute respiratory tract infections such as cough and sore throat in 2012. Moreover, Research from 807 patients found that *Andrographis paniculata* extract products in combination with other herbs Dosage: 31.5-200 mg/day and take it for 3-10 days to reduce the frequency and severity of cough due to the common cold and inflammation of the upper respiratory tract.

6.2.2 "Ginger" rhizomes are articulated, horizontally flattened, branched, palm-like shape, consisting of a small root like a finger, 3-16 centimeters long, 3-4 centimeter wide, and thicker than 2 centimeters. The outer surface is yellow or light brown and has longitudinal wrinkles. The inside is pale yellow to brown. Splintered has a lot of fibers and a specific smell. Light yellow powder from ginger, sweet and spicy taste, can use rhizome to treat indigestion, indigestion, heartburn, indigestion, abdominal pain, nausea, vomiting, diarrhea, stimulates appetite, treat cold symptoms, treatment of migraine headaches and treat joint pain, muscle pain, nourish the fire element, and kill parasites. Ancient properties, dried ginger, fever, cough, expectorant, sweat, relieve breathlessness, relieve phlegm, nourish the elements, cure vomiting. Fresh ginger is used to relieve stomach ache, nourish the elements, expel the intestines to fart and burp, cure vomiting, appetite suppressants, expels bile to aid digestion, relieves sore throat, relieves constipation, reduces blood pressure.

6.2.3 "Makhampom" Makhampom is a common plant in Southeast Asia such as Thailand, Laos, Burma, Cambodia, India, China, and Thailand. It can be seen sporadically. The dry mixed deciduous forest, deciduous dipterocarp forest and red forest are abundant in the northeastern, northern, eastern and central parts of Thailand. Distribution occurs from wildlife such as barking deer or deer, including humans that eat tamarind leaves and discard seeds farther away, allowing for wider distribution.

Makhampom fruit (Indian gooseberry) has properties to cure colds and coughs. It is known in every country that has tamarind. Until now, there is a patent registered in the United States of drug formulas that contain ingredients. Gooseberry is listed for its properties in curing colds and fevers, which may be due to vitamin C or tannins.

**6.3 Types of Research**

Research on "factors that affect COVID-19 patients choosing to take herbal medicines", using a survey study method (Survey Research) , using quantitative research methods to study on a case by case basis that affect research and to collect data by using a closed-ended questionnaire.

**6.4 Population and sample**

6.4.1 Population and sample consisted of 30 people who had been infected with COVID-19 who used herbal or herbal medicines to treat symptoms through a questionnaire prepared by the study.

**Table 1:** General questionnaire of the respondents

Gender	Total ( person )
Male	
Female	
Age	Total ( person )
Under 18 years	
18 – 35 years	
36 – 55 years	
over 55 years	
Education Degree	Total ( person )
Undergraduate	
Bachelor’s degree	
Postgraduate	
Average monthly income	Total ( person )
Less than 10,000 baht	
10,001 – 30,000 baht	
More than 30,001 baht	

**Table 2:** Questionnaire on factors affecting COVID-19 patients choosing to take herbal medicines

Properties	Total ( person )
1. Properties of herbs to treat the side effects of infection.	
2. The body recovers from illness better with the properties of herb	
Reliability	Total ( person )
Note: Participants can select more than 1 item.	
1. The herbs that were extracted like that were reliable.	
2. The medicinal herbs extracted are certified to be safe.	
price factor	Total ( person )
1. Medicines from herbal extracts are available at reasonable prices.	
2. People had access to the price of medicinal herbs extracted ; it was priced at an acceptable level.	
Medical Recommendation	Total ( person )
1. According to current medical treatment plans, doctors advise people to use herbs for the treatment of ailments.	
2. Current medical information recommends the use of herbs for the treatment of infections	

**7. Performance**

From a research study on "Factors that influence COVID-19 patients to choose herbal medicines" is a study of factors that affect patients to choose herbs to treat their illnesses. COVID-19 disease, the researcher has conducted the research study according to the operating procedure with the following results.

**Table 3:** Summary of the general information questionnaire of respondents

Gender	Total ( person )
Male	12
Female	18
Age	Total ( person )
Under 18 years	5
18 – 35 years	13
36 – 55 years	10
Over 55 years	2
Education level	Total ( person )
Undergraduate	10
Bachelor’s degree	17
Postgraduate	3
Average monthly income	Total ( person )
Less than 10,000 baht	15
10,001 – 30,000 baht	12
More than 30,001 baht	3

**Table 4:** Conclusions from the questionnaire on determinants affecting COVID-19 patients to choose herbal medicines

Determinants	
Properties	Total ( person )
1. Properties of herbs to treat side effects of infection.	25
2. The body recovers from illness better with the properties of herbs.	5
Reliability	Total ( person )
Note: The participated can select more than 1 item.	
1. The herbs that were extracted like that were reliable.	30
2. The medicinal herbs extracted are certified to be safe.	30
Price	Total ( person )
1. Medicines from herbal extracts are available at reasonable prices.	19
2. People had access to the price of medicinal herbs extracted, it was priced at an acceptable level.	11
Medical Recommendation	Total ( person )
1. According to current medical treatment plans, doctors advice people to use herbs for the treatment of ailments.	23
2. Current medical information recommends the use of herbs for the treatment of infections.	7

The study found that the majority of respondents were 18 females, 12 males on the other. The majority of respondents were aged between 18-35 years of age with 13 people, followed by 10 people between 36-55 years of age. Most of the educational level were at bachelor's degree 17 people, followed by Undergraduate 10 people. Most of the respondents had an average monthly income of less than 10,000 baht for 15 people, followed by 10,001-30,000 baht for 12 people. From the results of the questionnaire,

Determinant that results in patients suffering from COVID-19 choosing herbal medicines as "properties" of medicines. Most of the 25 respondents commented that the medicinal properties helped treat the side effects of infections. In Determinant Reliability, 30 respondents commented that the medicinal herbs extracted were reliable, and that they were approved to be safe. In terms of price, it was found that the respondents were very interested in the price of the medicine, 19 people said that the herbal extract medicine was reasonable, and 11 people said that the price of herbal extract pills was at an acceptable level. On the Medical Recommendation Determinant, a majority of 23 respondents were advised to use herbal samples for medical treatment by a physician.

From the research study, the researcher was aware of the information in various aspects of the respondents, and the various Determinants that the respondents expressed their opinions related to the researcher's question.

## 8. Limitations and Suggestions

### Problems and obstacles

- 1) As the current study was in the midst of the COVID-19 epidemic (from 2019 to the present), it made it difficult to collect data from respondents.
- 2) It is difficult to collect information from people who have been infected with COVID-19, as the time period and access to the area of the respondents can be limited.
- 3) During the first phase of the COVID-19 epidemic situation, there is information for Relatively few studies have been done, as there is no previous literature continually researching COVID-19.

### Suggestions

- 1) It may be necessary to find ways to prevent infection with COVID-19, according to the recommendations of related parts, avoiding encountering crowded areas, etc.
- 2) May need to collect information for online study to prevent exposure to COVID-19, to facilitate research, and to obtain information without traveling, to prevent the spread of COVID-19.
- 3) May need to study information from official websites, foreign websites, reliable sources, because of the emerging epidemic, there is not much information during the study.

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