

# Herbal Medicine Utilization among Batangueños

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**Abstract** – This study aimed to determine the DOH-approved herbal plants utilization among Batangueños. Specifically, it determined the level of awareness of the ten DOH approved herbal plants including its preparations. It also identified the extent of use of ten DOH approved herbal plants; determined the reasons and factors affecting usage of herbal plants; identified herbal plants used not approved by DOH; and formulated finally an Information Education Communication (IEC) material that will enhance their knowledge, skills, and attitude on how to utilize herbal plants. The study utilized a descriptive type of design, wherein a self-made questionnaire was utilized through purposive sampling. Results showed that most of the Batangueños are aware of the ten DOH approved herbal plants and its proper preparations. Based on the obtained results, it was found out that the respondents were most familiar with bayabas, ampalaya, and sambong among the approved herbal plants and ulasimang-bato/pansit-pansitan, akapulko, and niyog-niyogan were the herbal plants that they were least familiar. Ampalaya, bayabas, and lagundi were the most utilized herbal plants among the DOH approved herbal plants and ulasimang-bato/ pansit-pansitan, niyog-niyogan, and yerba buena were the least used. Results also revealed that Batangueños were most familiar with tawa-tawa, oregano, and luyang dilaw among the non-approved herbal plants and lubigan, gingko, and luyang dilaw were the herbal plants that they were least familiar. An Information Education Communication (IEC) material has been formulated to enhance the chosen respondent's knowledge, skills, and attitude on how to utilize the different herbal plants.

**Keywords** – Herbal Medicine, Utilization, Batangueños

## INTRODUCTION

Herbal Medicine has proven itself in practice over thousands of years and has been used by millions of people all over the globe. Herbal medicines have been in use longer than any scientific trial or study; the number of people involved bigger than any group selected for a

trial. The knowledge of medicinal plants has been passed from generation to generation, often with families. Herbal healers observed how sick animals and birds would eat a particular herb or plant in an attempt to self-medicate or purge themselves.

There are many kinds of herbal medicines in the Philippines, and a lot of people are using it because of its benefits. Although it has risks, majority of the population, especially the Batangueños; adhere to their old practice of utilizing traditional medicine in treating ailments and enhancing general health and well-being.

The World Health Organization has estimated in 2013 that about four billion people, (80% of the world population) presently use herbal medicine for primary health care

In the province of Batangas, herbal medicinal use is already a widespread practice even before the advent of western style medicine. Traditional herbal medicines are naturally occurring, plant-derived substances with minimal or no industrial processing that have been used to treat illness within local or regional healing practices [1]. In answer to WHO's call, health authorities and administrators in developing countries have decided to take traditional forms of medicine more seriously and to explore the possibility of utilizing them in primary health care.

In 2004, then President Gloria Macapagal- Arroyo, issued proclamation No. 698, s.2004 to facilitate the creation of Philippine Institute of Traditional and Alternative Health Care (PITAHC) in accordance with Republic Act No. 8423 otherwise known as Traditional and Alternative Medicines Act of 1997. The Department of Health was then directed to officially declare 10 herbal plants as alternative medicines promoting its use and development as medicinal products. The approval is a clear recognition of these plants' contribution in the field of medicine and its impact to the population.

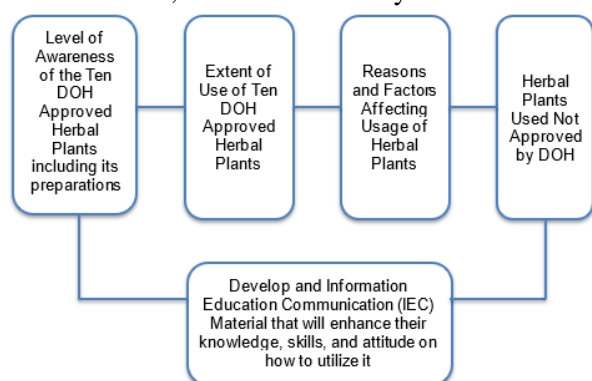
In this context, treatment with herbal medicine is considered very safe as there is no or minimal side effects because it was approved by the Department of Health. However, utilizing non-herbal medicine was also practiced. In addition, due to the diversity of medicinal

plants and herbal medicines, the researchers want to develop an Information Education Communication (IEC) material, which aims to provide the knowledge, skills, and attitude on how to utilize those approved and non-approved herbal medicine.

### Theoretical Framework

The Transcultural Nursing Theory or Culture Care Theory by Madeleine Leininger involves knowing and understanding different cultures with respect to nursing and health-illness caring practices, beliefs and values with the goal to provide meaningful and efficacious nursing care services to people according to their cultural values and health-illness context.

In relation to our study, it is part of the Philippine culture to use ten herbal plants in treating and preventing common illnesses. There are ten herbal plants approved by the DOH that can be easily acquire in different places in the Philippines. Since herbal plants have been one of the longest healing practices in our country, Filipinos should be aware of these 10 DOH approved medicinal plants, their preparation and their usage. It is related to our study because it involves the respondents' utilization of alternative medicine and focuses on the informants' cultural values, beliefs and lifeways.



**Figure 1. DOH-Approved Herbal Plants Utilization Among Batangueños**

Figure 1 shows the Batangueños' utilization of the ten approved herbal plants. In the first box, it shows the level of awareness of the Batangueños of the said herbal plants including its indication and preparation. The second box shows on to what extent does the Batangueños utilize these herbs according to its indication. The third box aims to show how different reasons and factors affect the Batangueños' utilization of herbal plants. The fourth box shows what other non-approved herbal plants are being utilized by the respondents. Lastly, to develop a module that will be produced for enhancing Batangueños' knowledge, skills and attitude on how to utilize the ten DOH-approved herbal plants.

### OBJECTIVES OF THE STUDY

This study aimed to determine the DOH-approved herbal plants utilization among Batangueños. Specifically, it determined the level of awareness of the ten DOH approved herbal plants and its preparations. It also identified the extent of use of the ten DOH approved herbal plants; determined the reasons and factors affecting usage of herbal plants; identified herbal plants used not approved by DOH; and finally developed an Information Education Communication (IEC) material that will enhance their knowledge, skills, and attitude on how to utilize it.

### METHODS

#### Research Design

Descriptive approach of research was used in this study, specifically of survey, to ascertain the data regarding the chosen participants' usage, preparation, and awareness of the ten DOH approved herbal medicines including their reasons and factors affecting the usage of the said herbal plants. After gathering the facts, the researchers came up with a theoretical connection involving the respondents' practice in utilizing herbals plants.

#### Participants

Barangay	Total Population	
	N	n
San Jose, Sico Batangas City	4,627	100
San Isidro Norte, Sto. Tomas City	1,663	36
Natatas, Tanauan City	4,700	102
Kinalaglagan, Mataas na Kahoy	2,377	51
San Gregorio, Malvar	1,138	25
<b>TOTAL</b>	<b>14,505</b>	<b>314</b>

Purposive sampling was used in selecting the respondents of this study. It is one of the most cost-effective and time-effective sampling methods [2]. The respondents selected were from the five major cities of Batangas particularly in Batangas City, Lipa City, Malvar, Tanauan City, and Sto. Tomas City.

The sample of the study consists of 314 residents of the five major cities of Batangas. This was based on an effect size of 0.20 and a power probability of 0.95 using G\*Power 3.1.9. The selection of the respondents will be at random but will also use purposive sampling since the respondents must be included in the set criteria that residents must be living at least one year, 21 years old and above and the respondents must be using herbal plants.

### Data Gathering Instrument

The primary gathering tool used by the researchers was distribution of self-made questionnaire which was validated by the dean and the research adviser. It is further categorized into five parts: the awareness of the ten DOH approved herbal plants including its preparations; identification of the extent of use of ten DOH approved herbal plants; distinguishing the reasons and factors affecting usage of herbal plants; and lastly, naming the herbal plants used not approved by DOH. This gathering instrument helped the researchers to plan for an Information Education Communication (IEC) material.

### Data Gathering Procedure

In preparation for the first draft of the questionnaire, the researcher utilized books, articles, and had browsed the internet. When the first draft was done, it was presented to the thesis adviser and the dean for their suggestions and comments.

After finalizing the questionnaire, the researchers first wrote a letter of request to the Dean of the College of Nursing concerning their study in the five major cities of Batangas Province. The researchers purposively selected the informants. Prior to distribution of questionnaires, a letter for permission was given to each barangay captains. A schedule was set regarding to the date, time and place most convenient to the informants. The respondents were oriented clearly of the regarding the purpose of the study and questions were entertained and considered in order to obtain their cooperation and interest. The chosen informants were assured of the confidentiality. After the respondents have answered the questionnaire, it was then retrieved, and the gathered data were tallied and analyzed.

### Data Analysis

The data generated from the questionnaires were analyzed using a descriptive survey and were also tallied, organized, tabulated and ranked in order to determine chosen respondents' awareness of the ten DOH approved herbal plants and its preparation, extent of use of the ten DOH approved herbal plants, determine the reasons and factors affecting usage of herbal plants and identify herbal plants used not approved by DOH. The given scale was used to interpret the result of the data gathered: 4.50 – 5.00 = Highly Aware (HA) ;3.50 – 4.49 = Moderately Aware (MA) ;2.50 – 3.49 = (A);1.50 – 2.49 = Moderately Unaware (MU); 1.00 – 1.49 Not Aware (NA);

## RESULTS AND DISCUSSION

Table 1 shows the weighted mean distribution among the respondent's awareness of the ten DOH approved herbal plants with a composite mean of 4.23 and was verbally interpreted as moderately aware. Among the items cited, the awareness that there are common places to get and grow herbal plants such as backyards or rural places got the highest computed mean followed by the awareness that verbal plants can be used as a first aid and that it can be used as an alternative medicine in relieving common ailments such as cough, cold, fever, and stomach-ache.

**Table 1. Awareness of 10 DOH Approved Herbal Plants**

	Items	WM	VI	R
1.	There are ten herbal plants approved by the Department of Health.	4.22	MA	8.5
2.	Proper preparations include decoction, tincture, infusion, poultice and bath and bathing.	4.13	MA	10
3.	There are proper ways on how to use herbal plants such as drinking, bathing, and direct application.	4.30	MA	4.5
4.	Herbal Plants can be used as an alternative medicine in relieving common ailments such as cough, cold, fever, and stomachache.	4.44	MA	3
5.	There are risks and side effects for the improper usage, preparations and ingestion of Herbal Plants.	4.22	MA	8.5
6.	Herbal Plants cannot be used like in certain diseases such as pregnancy, or in children aged 4 years and below.	3.59	MA	12
7.	Specific part of a plant can be used in preparation of Herbal Medications such as its stems, leaves, bulbs, and seeds.	4.29	MA	6
8.	There are common places to get and grow herbal plants such as backyards or rural places.	4.58	HA	1
9.	There are certain instances when to stop using herbal plants and consult a doctor.	4.30	MA	4.5
10.	There are limitations in using herbal plants after preparations.	4.27 3.97	MA	7 11
11.	There are herbal plants that should not be taken along with certain manufactured drugs.			
12.	Herbal plants can be used as a first aid.	4.50	HA	2
<b>Composite Mean</b>		<b>4.23</b>	<b>MA</b>	

First in the rank shows that there are common places to get and grow herbal plants such as backyards or rural places as perceived by the respondents and verbally interpreted as highly aware. Living in a rural place gives a person an increased opportunity to grow herbal plant. With a proper culmination of soil, a plant can be grown appropriately. Most of the respondents have a backyard for growing herbal plants which they used to their advantage. Though some of them haven't got a backyard, their community has an open space with grown herbal plants accessible to the public or all its residents. According to the study of Tabinas [3], herbs can be easily grown in your backyard without much maintenance aside from being abundant in the Philippines.

The respondents are highly aware that herbal plants can be used as a first aid. The respondents verbalized that in absence of manufactured drugs, they are utilizing herbal plants and have been relieved by it. Herbal medicine has gained wide acceptance and popularity among Filipinos in providing basic medical care [4].

Next is that herbal plants can be used as an alternative medicine in relieving common ailments such as cough, cold, fever, and stomach-ache as perceived by the respondents and verbally interpreted as moderately aware. Having access difficulty to health centers makes herbal plants more effective as an alternative medicine. The respondents believed that herbal plants are natural healers which mean it has a few or less side effects to their body. Most of them said that herbal plants are also budget-wise than most manufactured drugs. Based in the article of Medical Health Guide [5] and Fact Sheet [6] the R.A. 8423 or otherwise known as Traditional and Alternative Medicine Act (TAMA) of 1997 scientifically proved that herbal plants can be effective for treating common ailments.

The respondents are moderately aware that there are proper ways on how to use herbal plants and there are certain instances when to stop using herbal plants fell at the same rank and is interpreted as moderately aware. Most respondents only know that drinking is the only way to use an herbal plant. Also, some them verbalized that they solely rely on herbal plants for relief and treatment. According to Famorca [7], herbal plants can be used through drinking, applying to the affected part, bathing or eating raw.

On the other hand, the fact that there is a specific part of a plant to be prepared or utilized in order to get its full potency is only interpreted as moderately aware. Most respondents only utilize the leaves of the plants and verbalized that it's been their tradition using it that way. A specific herbal plant may be prepared in several ways to treat different conditions [8].

Seventh in rank with moderate awareness from the respondents is that there are limitations in using herbal plants after preparations. Most respondents verbalized that its been their habit of storing prepared herbal plants in order to save time in the future without knowing that some herbal plants, if stored for a few days, its potency will decrease. According to Taylor [8], decoction is prepared and boiled for twenty minutes, then it is allowed to sit/ soak overnight before straining out the herb and many properly prepared plant tinctures can last several years or more without losing potency.

Another one that fell on the same rank is that the respondents are moderately aware that there are ten herbal plants approved by the Department of Health and there are risks and side effects for the improper usage, preparations and ingestion of herbal plants. Most respondents, though living in a rural place, are not familiar of the approved herbal plants and they also said that they've been preparing and using herbal plants the way they are taught by their parents and significant others. A specific herbal plant may be prepared in several ways to treat different conditions. These methods include cold- soaking, decoction, infusions, macerations and tincture or alcohol or water extraction [8]. Penecilla and Magno [9], mentioned that in the Philippines, there are only ten medicinal plants approved and recommended for use by the government's Department of Health.

While there are proper preparations before ingesting herbal plants through decoction, tincture, infusion and poultice, it was only verbally interpreted as moderately aware. It was observed that majority of respondents only know decoction as a way of preparing herbal plants. Proper preparations should be done in order for herbal medicine to be effective and also to lessen or prevent adverse effects. There are proper ways to prepare herbal plants along with its indication as stated by Taylor [8] namely: Decoctions which are usually the method of choice when working with tougher and more fibrous plants, barks and roots. Instead of just steeping it in hot water, the plant material is boiled for twenty minutes, allowing the harder part to soften and release its active constituent; Infusions are prepared by boiling water and then poured over an herb.it is covered and allowed to sit/steep between ten and fifteen minutes; Poultices are prepared in various ways, from the jungle shaman chewing up fresh leaves or roots and spitting them out onto the skin or mashing up fresh leaves or roots by hand or with mortar and pestle; Tincture is an alcohol and water extract, which is used when plants have active chemicals that are very soluble in water, and or when a larger quantity is prepared for convenience and meant for long-term storage.

Another one is there are herbal plants that should not be taken along with certain manufactured drugs and is verbally interpreted as moderately aware. Although majority of the respondents doesn't take any medication along with manufactured drugs, they are unaware that it is contraindicated. Such actions may alter a person's body function or cause an adverse reaction, which can lead to a more serious illness. In a study conducted by Ulbricht [10], she explained that unwanted side effects and health problems can be triggered by combining natural supplements with widely used drugs. Like for example, ginger shouldn't be taken along with warfarin or other anti-hypertensive or anticoagulant medications.

Ranked in the last place is that herbal Plants cannot be used like in certain diseases such as pregnancy, or in children aged 4 years and below and is verbally interpreted as moderately aware. According to Romm [11], little is known scientifically about the safety of most herbs during pregnancy, as most have not been formally evaluated and ethical considerations limit human clinical investigation during pregnancy. However, much the same can be said for the use of many pharmaceuticals during pregnancy, most of which have not been tested or proven safe in pregnancy. Even medications previously thought to be safe in pregnancy, including Tylenol, have now been found to cause potential problems for baby.

The respondents of the community are mostly aware regarding the abundance of herbal plants as well as its capacity to relieve common illnesses. However, it was also seem that most of the respondents are not aware of the existence of the ten herbal plants approved by DOH along with its proper preparations and risks for improper preparations and usage.

Table 2 shows that the respondents are moderately aware of the preparation of the 10 DOH Approved herbal plants. Most community people only know the preparation through decoction. Also, most of them only uses the leaves of the plants. According to Famorca [7], there is a specific part of a plant to be used and when not utilized properly, its potency will decrease.

First in the rank showing the awareness of preparations of the ten DOH approved herbal plants is the Bayabas leaves, most of the people in the community are aware on how it is being prepared through decoction and used through drinking of the boiled solution or washing and bathing. As perceived by the respondents and verbally interpreted as moderately aware. Bayabas is prepared through decoction by the use of its leaves [7].

The next plants are ampalaya leaves and sambong leaves, the community people believed that by utilizing

it, they will be relieved. As perceived by the respondents and both are verbally interpreted as moderately aware. Ampalaya leaves are prepared through decoction and steam while sambong leaves are prepared through decoction [7].

**Table 2. Awareness of Preparations of the 10 DOH-Approved Herbal Plants**

Indicators	WM	VI	R
1. Lagundi leaves are prepared through decoction, used through drinking of the boiled solution and washing the affected site.	4.27	MA	5
2. Yerba Buena leaves are prepared through decoction, and massage sap; used through drinking of the boiled solution and massaging the affected area.	3.30	MA	4
3. Sambong leaves are prepared through decoction and used through drinking of the boiled solution.	4.34	MA	2.5
4. Tsaang Gubat leaves are prepared through decoction and used through drinking of the boiled solution.	3.95	MA	7
5. Niyog-niyogan seeds are prepared through decoction and used through drinking of the boiled solution.	3.64	MA	10
6. Bayabas leaves are prepared through decoction and used through drinking of the boiled solution or washing and bathing.	4.44	MA	1
7. Akapulko leaves are prepared through poultice or used through direct application of the recommended plant material on the affected part.	3.72	MA	9
8. Ulasimang-bato/Pansit-pansitan stems and leaves are prepared through decoction and used through drinking of the boiled solution or eating the recommended raw plant material.	3.76	MA	8
9. Bawang bulbs are used through eating the recommended raw or fried plant material, or direct application on the affected part.	4.14	MA	6
10. Ampalaya leaves are prepared through decoction or steaming the recommended plant material and used through drinking of the boiled solution.	4.34	MA	2.5
<b>Composite Mean</b>	<b>3.99</b>	<b>MA</b>	

Another result shows the awareness of preparations in yerba buena leaves. Community people are aware in the preparation of this herbal plant through decoction,

infusion, massage sap and is also used through drinking of the boiled solution and massaging the affected area. As perceived by the respondents and verbally interpreted as moderately aware. Yerba Buena leaves are prepared through decoction, infusion or massage sap [7].

Fifth in the rank shows the awareness of preparations in lagundi leaves and respondents prepared it through decoction and used through drinking the boiled solution and washing the affected site as perceived by the community people and verbally interpreted as moderately aware. Lagundi leaves are prepared through decoction [7].

Sixth in the rank shows the awareness of preparations in Bawang bulbs that is used through eating the recommended raw or fried plant material, or direct application on the affected area as perceived by the respondents and verbally interpreted as moderately aware. Bawang bulbs are used by eating it raw or applying it directly on the affected part [7].

Seventh in the rank shows the awareness of preparations in tsaang gubat leaves that is being prepared through decoction and used through drinking of the boiled solution as perceived by the respondents with and verbally interpreted as moderately aware. Tsaang gubat leaves are prepared through decoction and used through drinking the boiled solution [7].

On the other hand, the awareness of preparations in ulasimang-bato/ pansit-pansitan stems and leaves and is being prepared through eating the recommended raw plant material. As perceived by the respondents and verbally interpreted as moderately aware. This practice has been used by several people and they believed that eating raw plant is one of the easiest way to do since it is less hassle to do than other ways of preparing herbal plants. Ulasimang Bato/pansit-pansitan stems and leaves are prepared through decoction or by being eaten raw [7].

The awareness of preparations in akapulko leaves that is being prepared through poultice as perceived by the respondents with and verbally interpreted as moderately aware. Some of the people are aware of the preparations and uses of the said herbal plant. They are not really into utilizing herbal plants or they are utilizing it seldom. Famorca [7] mentioned that akapulko leaves are prepared through akapulko wherein the plant material is directly applied to the affected part.

Ranked last showing the awareness of preparations is niyog-niyogan seeds prepared through decoction and being used through drinking of the boiled solution. As perceived by the respondents and verbally interpreted as moderately aware. Most of the respondents were not utilizing this kind of herbal plant and got the lowest rank due to unawareness of the preparation of the said plant.

In the study done by Taylor [8], decoctions are usually the method of choice when working with tougher and more fibrous plants, barks and roots. Instead of just steeping it in hot water, the plant material is boiled for twenty minutes, allowing the harder part to soften and release its active constituent. According to Famorca [7], niyog-niyogan seeds are prepared through pulverization then eaten raw.

It was shown that most of the respondents are aware of the proper preparations of bayabas, sambong and ampalaya. But most respondents are unaware of the preparations of ulasimang bato/pansit-pansitan, akapulko and niyog-niyogan.

**Table 3. Extent of Use of 10 DOH-Approved Herbal Plants**

Items	WM	VI	R
1. Lagundi is used in treating asthma, cough and colds, fever, dysentery, pain, skin diseases (scabies, ulcer, eczema), wounds.	3.53	VGE	3
2. Yerba Buena is used in treating headache, stomachache, cough and colds, rheumatism, and arthritis.	2.70	GE	10
3. Sambong is used as antiedema and antiurolithiasis.	3.34	GE	5
4. Tsaang Gubat is used for diarrhea and stomachache.	3.09	GE	6
5. Niyog-niyogan is used as antihelminthic	2.74	GE	9
6. Bayabas is used in washing of wounds, as gargle, and in treating diarrhea and toothache.	3.57	VGE	2
7. Akapulko is used as antifungal.	3.02	GE	7
8. Ulasimang-bato/Pansit-pansitan is used to lower blood uric acid	2.93	GE	8
9. Bawang is used in treating toothache and hypertension and lowering blood cholesterol.	3.51	VGE	4
10. Ampalaya is used in treating diabetes mellitus (mild non-insulin dependent)	3.59	VGE	1
<b>Composite Mean</b>	<b>3.20</b>	<b>GE</b>	

As seen from the Table 3, the respondents use the ten DOH-approved herbal plants to a great extent with a composite mean of 3.20. Among the said items, Ampalaya, which is used in treating diabetes mellitus (mild non-insulin independent), got the highest rank as perceived by the Batangueños and verbally interpreted as very great extent. Philippines is currently a diabetes hotspot and due to high incidence of diabetes mellitus (mild non-insulin dependent), the informants highly

utilize ampalaya, which is readily available in their backyards [12].

Second in the rank is bayabas, which is used in washing of wounds, as gargle, and in treating diarrhea and toothache as perceived by chosen respondents and interpreted as very great extent. Philippines is a tropical country wherein Bayabas is locally known for its edible fruit. Guava is commonly seen and grown in the backyards of Filipinos because of its known various effects in treating wounds, diarrhea and toothache. Bayabas or guava fruit is known for being rich in vitamin C and vitamin A. It has value in herbal medicine for its antiseptic activity in treating wounds, ulcers, bacterial infections and diarrhea. Bayabas contains various compounds that provides various health benefits for community people [5].

Lagundi, which is in the third rank, is used in treating asthma, cough and colds, fever, dysentery, pain, skin diseases (scabies, ulcer, eczema), and wounds as perceived by the Batangueños and interpreted as to a very great extent. Given that the respondents live in a rural place, they are more prone to have asthma, cough and colds, fever and skin diseases. Studies have shown that Lagundi can prevent the body's production of leukotrienes which are released during an asthma attack. Lagundi contains Chrysoplano D, a substance with antihistamine and muscle relaxant properties. Lagundi is becoming recognized as an effective herbal medicine especially since researches have shown that it contains properties that make it an expectorant and it has been reported to function as tonic as well. More than that, most of the parts of lagundi plant have medicinal value [13].

Fourth in the rank is bawang, which is used in treating toothache and hypertension and lowering blood cholesterol, as perceived by Batangueños and interpreted as to a very great extent. This herb is one of the most widely used herbal medicines in the Philippines and can also be found commonly in the kitchen of Filipino households as it is used to spice up food preparations. Its medicinal properties have been known for a long time and have been especially proven in lowering blood pressure and cholesterol [13].

Sambong, which is in the fifth rank, is used as an antiedema and antiurolithiasis, as perceived by the respondents and verbally interpreted as great extent. According to Philippine Council for Health Research and Development. (2017), it is best to treat urolithiasis and edema with potassium citrate and sodium bicarbonate if combined with sambong. Potassium citrate and sodium bicarbonate can be obtained from certain prescription drugs. On the other hand, an optimum amount of sambong can be obtained from Re-Leaf Forte, made of

processed organic Sambong, a two-in-one medication that is not only anti-urolithiasis but a diuretic as well.

Tsaang-gubat, which is in the sixth rank, used for diarrhea and stomachache, as perceived by the chosen informants and verbally interpreted as great extent. This herb is scientifically proven for its medicinal worth mainly its anti-spasmodic effect. It is extensively endorsed by the Philippines' Department of Health in treatment stomachache, abdominal pain and diarrhea.

Seventh in the rank is akapulko that is used as an antifungal, as perceived by the chosen respondents and verbally interpreted as great extent. Akapulko is commonly used as an antibacterial and anti-fungal treatment for various skin diseases that include tinea infection, ringworms, eczema, scabies insect bites and all sorts of skin itchiness [5].

In a controlled study involving rats, extracts from *P. pellucida* were administered and uric acid levels were monitored. The study has shown that rats were subjected to pansit-pansitan extract indicated a 44% reduction of uric acid level in blood while those that are given allopurinol drug have shown 66% reduction in uric acid level. The results show that pansit-pansitan contains compounds that may be used as alternative to allopurinol to control uric acid level in the blood. Medical Health Guide [5]. Eighth in the rank is Ulasimang bato/Pansit-Pansitan that is used to lower blood uric acid as perceived by the respondents and verbally interpreted as great extent. Although Ulasimang bato/Pansit-Pansitan is proven to be effective in lowering blood uric acid, Batangueños seldom use it due to unawareness to the said herbal plant.

Niyog-niyogan is a popular medicinal herb in the Philippines for its deworming properties. Its seeds are dried and taken orally to expel intestinal worms and parasites [14]. Ninth in the rank is Niyog-Niyogan, which is used as antihelminthic as perceived by the respondents and interpreted as great extent. Vector borne diseases, which specifically involve worms, are common in rural places or in farms. People acquire the said disease during planting in rice fields and during playing outdoor games without wearing their footwear among children. However, the Batangueños are unaware of the health benefits of Niyog-Niyogan, which put the item at ninth rank.

Ranked last is yerba buena, which is used in treating headache, stomach-ache, cough and colds, rheumatism, and arthritis and verbally interpreted as great extent. Majority of the chosen respondents were not aware of yerba buena and verbalized that they seldom hear or encounter the said plant and unaware of its medicinal uses. As a pain reliever, the minty and relaxing effect of

yerba Buena is used as a topical aid in alleviating the pain associated with arthritis, gout, headache and other body and joint pains. As an expectorant, its minty scent and flavor is used in vaporizers to unclog the nasal passage to accumulation of phlegm and helps to relieve inflammation [5].

It was evident that the chosen respondents utilize herbal plants to a great extent. In the Philippines, the usage of herbal medicine reflects the culture or economic condition of a particular place. The chosen respondents mostly utilize ampalaya, bayabas and lagundi in treating common ailments. Ulasimang bato or pansit-pansitan, niyog-niyogan and yerba buena are seldomly used by the Informants due to its unavailability within their community.

**Table 4. Reasons and Factors Affecting Usage of Herbal Plants**

Items	YES % (R)	NO % (R)
1. My parents utilize specific herbal plants. (scabies, ulcer, eczema), wounds.	95.20 (5)	4.80 (11)
2. Herbal plants are more cost-effective than manufactured drugs.	94.30 (6)	5.70 (10)
3. Herbal plants are not readily available in my backyard.	30.90 (14)	69.10 (2)
4. Herbal plants are more accessible than manufactured drugs.	85.30 (9)	14.60 (7)
5. I have experienced allergies in utilizing herbal plants.	12.50 (15)	87.60 (1)
6. Herbal plants are more effective than manufactured drugs.	65.30 (11)	34.70 (5)
7. Herbal plants might have toxic effects on health with improper preparation.	86.60 (8)	13.40 (8)
8. A lot of people utilize herbal plants.	83.10 (10)	16.90 (6)
9. Herbal plants are not easy to prepare.	33.50 (13)	66.60 (3)
10. There are benefits in utilizing herbal plants.	93.00 (7)	7.00 (9)
11. I am not aware of the proper preparations in utilizing herbal plants.	48.80 (12)	51.30 (4)
12. Herbal plants can be used as a first aid in the absence of first-aid kit.	95.90 (4)	4.20 (12)
13. I have been relieved by utilizing herbal plants.	96.80 (1)	3.20 (15)
14. Herbal plants have an unusual taste	96.50 (2.5)	3.50 (13.5)
15. Use of herbal plants has been a tradition among Filipinos.	96.50 (2.5)	3.50 (13.5)

Based on the survey at Table 4, one of the reasons and factors affecting the usage of herbal plants is that if herbal plants have an unusual taste wherein most of the informants agreed to this statement. It has been passed around by Filipinos that the bitter the taste of an herb, the more effective it is. On the other hand, some of the informants don't mind if the herbal medicine has an unusual taste. Some of them voiced out the desire to be cured and disregard the taste of an herbal plant. For thousands of years, bitter herbs have been used in alternative healing. Known as "bitters," these herbs can affect physiological reactions within the body, working as an astringent, a tonic, and an internal cleanser. In particular, bitter herbs have been used to improve digestion and counter inflammation. Whether your interest in bitter herbs is medicinal, religious, or culinary, remember that all herbs should be used properly to obtain the best results. Before you decide to use an alternative medicine approach such as herbal treatments and remedies, it's wise to consult with your healthcare professional as some herbs can interact with prescription medicines or be toxic if used improperly. While bitter herbs may not be as tasty as other herbs and spices, their beneficial properties make them worth the slight inconvenience of an unpleasant taste.

Majority of the informants concur that the use of herbal plants has been a tradition among Filipinos. Upon interviewing, most of them believed that herbal plants have a long history of traditional use. Filipino faith healers pass down knowledge from generation to generation and selectively choose which herbal medicines are most effective and kept alive.

De Padua [15] stated that the Philippines has a wealth of plants with medicinal properties that are being use more by health professionals and plants have always been the primary source of medicines from ancient times to the present. Some of the chosen informants disagreed to this statement and utilizes herbal plants not because of the influence of their parents but due to impact of different advertisements. Plants were the original medicine, and many of the pills and other pharmaceutical remedies that exist today were derived from, or are based on, components of plants. There is recorded evidence from 3,000 BCE that people in China and Egypt used plants as medicine, and indigenous cultures around the world have done the same since well before recorded history [16].

It was shown that majority of the respondents agreed that herbal plants could be used as a first aid in the absence of first-aid kit. Herbal medicine has gained wide acceptance and popularity among Filipinos in providing basic medical care [4]. Some of the chosen respondents



disagreed and still believe in the effectiveness of manufactured drugs rather than herbal medicine which made them decide to consult at barangay health center for a safer intervention.

Another factor that affects the usage of herbal plant is if the chosen informants' parents utilize specific herbal plants wherein majority of them agreed to the statement. Having close family ties is a great factor for a person to use herbal plants especially among Filipinos, given that parents play a major role in influencing their children regarding their way of living. However, some of the respondents chose to utilize herbal plants not because of the influence of their parents, but due to television advertisements.

It is evident that most of the respondents agreed that herbal plants are more cost-effective than manufactured drugs. Based on the article Fact sheet [6] The Philippine government has implemented the Cheaper Medicines Bill and the creation of the Philippine Institute of Traditional and Alternative Health Care (PITAHC), a Government Owned and Controlled Corporation (GOCC) attached to the Department of Health to answer the present needs of Filipinos on health care. With this, Filipinos can now rely on herbal medicines which are available in abundance. Each barangay consists a health center wherein common medications are free. Most of the informants stated if herbal plants will be compared to the manufactured drugs, herbal plants would be their choice in terms of cost because it can be grown just in your backyard or be given by their neighbors. In the early 19th century, when chemical analysis first became available, scientists began to extract and modify the active ingredients from plants. Later, chemists began making their own version of plant compounds and over time, the use of herbal medicines declined in favor of drugs [16].

Most of the informants verbalized that there are benefits in utilizing herbal plants. The respondents continue to use herbal plants due to its advantages to their health. Refusing to use synthetic drugs is indeed a healthy choice. Being aware of the benefits of natural medicine might cause an increasing number of people to use these resources. Some of the informants don't believe in the beneficial causes of herbal plants and accepts the fact that manufactured drugs are more helpful in treating common ailments rather than herbal medicine.

Based on the survey, the respondents agreed that herbal plants might have toxic effects on their health with improper preparation. Majority of them shows that they are aware and knowledgeable that herbal plants could cause harm in their health without preparing the plants properly. However, some of them don't believe that

herbal plants have harmful impact if not stored and prepared correctly. They continue to use herbal medicine without doing comprehensive research on its appropriate preparation. Often, pharmaceutical and herbal medicines come from plants that are poisonous and lethal in the wrong doses, and they are safe only because they have been scientifically calculated by experts. However, there are a surprising number of benign garden plants that anyone can use to buffer their health. Some of these plants can potentially stand as alternatives to over-the-counter drugstore remedies [16].

It was shown that most of the informants coincide that herbal plants are more accessible than manufactured drugs because they are abundant in rural places. However, few of the respondents disagreed to this knowing that there is a health center nearby that has stocks on common manufactured drugs which they can utilize immediately without the hassle of preparing herbal plants. In the study done by Tabinas [3], she stated that herbs are easy to grow and is abundant in the Philippines.

The respondents agreed that a lot of people utilize herbal plants. Upon interview, majority of the respondents believed that a lot of their community people utilizes herbal plants and even specified what plants are planted in their backyard. De Padua [15] stated that the Philippines has a wealth of plants with medicinal properties that are being use more by health professionals and plants have always been the primary source of medicines from ancient times to the present. Some of the respondents disagreed to this statement and believes that only few people utilize herbal medicine due to availability of manufactured drugs which they believe are more effective and safer to use.

Based on the survey and interview, majority of the chosen informants concur that herbal plants are more effective than manufactured drugs. The respondents continue to use herbal plants due to its advantages to their health. As cited by Famorca [7], traditional medicine is the 'sum total of knowledge, skills and practice on health care, not necessarily explicable in the context of modern, scientific philosophical framework, but recognized by the people to help maintain and improve their health towards the wholeness of their being, the community and society and their interrelations based on culture, history, heritage and consciousness. However, some of them believe that manufactured drugs are more effective rather than herbal plants because its efficacy was proven and tested.

It was evident that the chosen informants are aware of the proper preparations in utilizing herbal plants. However, almost half of the chosen respondents only

know decoction as a way of preparing a specific herbal medicine. It was verbalized that they need to be more knowledgeable on the correct way of storing, preparing and consuming herbal medicine. There are 5 ways on how to prepare herbal plants according to Taylor [8] namely decoction, infusion, tincture, poultice and maceration. Herbal medicines can be taken in a range of ways such as by drinking teas, capsules and tinctures and can be used both externally and internally. Some herbal remedies may require specific preparation methods to produce the desired and most effective results for a particular condition. In other cases, different preparations of herbal medicines are available to suit the personal preferences of the individual.

Majority of the respondents coincide that herbal plants are easy to prepare. However, the most common method of preparation they utilize is decoction. Most of the informants are unaware of other preparations which include infusion, tincture, poultice and maceration [8]. In traditional herbal medicine systems, herbal remedies are prepared in several rather standardized ways which usually vary based upon the plant utilized, and sometimes, what condition is being treated. In indigenous medicine systems, medicine men or shamans generally use these same methods in addition to others. Others include preparing plants in hot baths, steam inhalation of various aromatic plants boiled in hot water, and even aromatherapy [8].

It was evident that one of the reasons and factors affecting the usage of herbal plants is that if herbal plants are not readily available in the respondents' backyard. Majority of them disagreed to this statement. Given that the respondents live in a rural place, herbal plants are readily available in their backyard because it is part of Batangueños' way of living to plant different kinds of herbal plants. Many common medicinal plants are likely growing in your yard or nearby fields—you just didn't know to look for them or thought of them as pesky weeds. It's important to note that you should ever ingest any medicine, plant or otherwise, without consulting your doctor and/or a skilled herbalist [16].

It was also shown that most of the informants have not experienced any allergy in using herbal plants, so they continue to utilize them in managing and curing common ailments. Some of the respondents verbalized that manufactured drugs have allergic reactions because of its chemical components while herbal plants are safe to consume because it is all natural. Herbs can have ill effects also, so take only the recommended dosages. If you develop any signs—rashes, hives, itching—stop taking the herb. Symptoms of moderate or severe allergic reaction include difficulty breathing or swallowing,

tightness in the chest, dizziness, and nausea. Some herbal products have been found to be contaminated by pesticides and heavy metals, so select herbal plants carefully [17].

Majority of the respondents perceived that they have been relieved in utilizing herbal plants, that alternative medicine has an unusual taste, and that use of herbal plants has been a tradition among Filipinos. The use of herbal medicines has been passed down from generation to generation. On the other hand, most of the informants disagreed that herbal plants are not easy to prepare, that herbal plants are not readily available in their backyard, and that they have experienced allergies in utilization of herbal plants.

**Table 5. Herbal Plants Used Not Approved by DOH**

Items	YES % (R)	NO % (R)
1. Banaba is used to increase urine output	8.30 (4)	21.70 (17)
2. Caimito is used for diarrhea and dysentery	1.70 (6)	28.30 (15)
3. Chico is used for diarrhea and fever	5.40 (12)	44.60 (9)
4. Dalandan is used for dyspepsia	5.70 (11)	44.30 (10)
5. Dalanghita is used as pain reliever	5.50 (17)	54.50 (4)
6. Dita is a remedy for fevers, chronic diarrhea and dysentery	2.20 (15)	47.80 (6)
7. Duhat is used as a gargle or mouthwash for gingivitis and mouth ulcerations	4.80 (13)	45.20 (8)
8. Ginkgo is used for asthma and digestive disorders	8.50 (19)	61.50 (2)
9. Guyabano's pulverized seeds and seed oil are effective for head lice	9.90 (10)	40.10 (11)
10. Decoction of kamansi leaves is used for bath among clients with rheumatism	7.80 (8)	32.20 (13)
11. Kamaria is used for menstrual cramps	5.20 (5)	24.80 (16)
12. Kamias is used for pruritus.	9.10 (7)	30.90 (14)
13. Lubigan is used as digestive and to increase the appetite	3.90 (18)	56.10 (3)
14. Luyang Dilaw is used for fevers, dysentery, abdominal pain, flatulence, abdominal spasm and arthritis	5.70 (3)	14.30 (18)
15. Mamalis' powdered bark in small doses is used as antipyretic	4.40 (20)	65.60 (1)
16. The entire plant or flower of manzanilla is used for whooping cough.	4.10 (14)	45.90 (7)
17. Mustasa leaves are applied to the forehead for headaches	5.90 (16)	54.10 (5)
18. Oregano is used for cough and colds	5.90 (2)	4.10 (19)
19. Tanglad's hot decoction of roots is used for toothache	2.40 (9)	37.60 (12)
20. Tawa-Tawa is used for clients with dengue	97.10 (1)	2.90 (20)

Table 5 shows the percentage of respondent's utilization on herbal plants used but not approved by DOH.

Tawa-tawa is being used for clients with dengue and they are using it because according to the respondents it is readily accessible in their community. Living in a rural place gives a higher chance of acquiring dengue due to unhealthy lifestyle practices, stagnant waters, and unsanitary environment. Only a few said that they don't have enough knowledge regarding this herbal plant because they are unaware of the preparations of the said plant and it is not readily available in their backyard. Tilburt [1], mentioned that an article in a WHO newsletter, opines that all research should hold the potential to achieve social value. Different entities may view the social value of traditional medicine research differently. Public health officials are often eager to define the safety and effectiveness of herbal medicines for conditions such as malaria. Conversely, harm can arise with unscrupulous use of some herbs. While some claim that such medicines have "stood the test of time", they nonetheless pose serious challenges to investigators and regulators. Accordingly, there has been serious investment in herbal medicine research and development in many countries.

Most of the respondents said that oregano plant is being used in treating cough and colds.

The respondents believe that Oregano is one of the most highly used herbal plant in treating cough and colds. While only a few said that they are not utilizing this herbal plant. And according to them; herbal plants have an unusual taste. AgriBusiness [4], mentioned that medicines from the 10 DOH- approved Philippine medicinal plants have become ever more popular among Filipinos in contrast with expensive western medicines which many cannot afford. Herbal medicine has gained wide acceptance and popularity among Filipinos in providing basic medical care.

Next in the rank shows the percentage of the use of luyang dilaw most of the respondents said that it is being used in treating fevers, dysentery, abdominal pain, flatulence, abdominal spasm and arthritis. The respondents believed that they will be relieved by utilizing it. A few said that they don't utilize Luyang Dilaw and they are not aware on the benefits of this specific herbal plant. In the study done by Nemeth [18], Two thirds of the world's populations still use herbs as a first choice to treat diseases. But besides the realm of medicine, several mass- consumed eatables and stimulants and refreshers, but they are also a rich source of fluorine, while ginger, a popular beverage in England, alleviates indigestion. At the beginning of its career,

Coca-cola was a beverage for headache. It was invented in the 1880s by a pharmacist in Atlanta, who used his knowledge of the cola nut in its manufacture.

Most of the respondents said that banaba is being used to increase urine output. The respondents also used this to prevent nephrolithiasis (formation of kidney stones). The community people perceived this herb as an effective diuretic. A few of them are not utilizing it because they said that they still prefer to use manufactured drugs than utilizing herbal plant. Banaba leaves also have diuretic properties and can be very helpful for people who have problems urinating normally. And for those who are suffering from urinary tract infections (UTI), leaves from the medicinal tree may provide relief because of their anti-bacterial properties. Matured leaves are boiled for about 30 minutes and consumed as tea by patients with UTI.

Rank fifth shows the percentage of kamaria that is being used to treat menstrual cramps. Majority of the respondents said that they have been relieved by utilizing Kamaria for menstrual cramps and they believe that it has no toxic effects. And some of them said that they are not utilizing it because for them; this kind of herbal plant is not readily available in their backyard. The respondents verbalized that they are utilizing kamaria plant in case of menstrual cramps. Stuart [19], mentioned that as emmenagogue: A strong decoction of leaves, 6-7 glasses a day to induce menstruation; also, for post-partum abdominal cramps.

Next in the rank shows the percentage of caimito use majority of the respondents said that they used it for treating diarrhea and dysentery to prevent dehydration. While a few said that they don't utilize this herbal plant. Because of having an easy access to this plant, the community people use this for treating diarrhea. In the study of Stuart [19], Caimito leaves can be prepared through decoction and used for treating diarrhea and be used for prevention of dehydration.

It shows the percentage of the respondents utilizing Kamias and majority said that it is being used in treating pruritis. Only a few of the respondents said that they don't utilized this herbal plant. The community people perceived this herb as being an effective remedy for treating pruritus. They stated that it can be applied to your skin. In the study of Roy (2011), she stated that the leaves are applied as paste of poultice on itches, swelling of mumps, and pimples.

Next in the rank shows the percentage of decoction of kamansi leaves. Most of them said that they used it for bath among clients with rheumatism. While a few said that they don't know this herbal plant and they don't have enough knowledge regarding this plant. Taylor [8],

Decoctions are usually the method of choice when working with tougher and more fibrous plants, barks and roots. Instead of just steeping it in hot water, the plant material is boiled for twenty minutes, allowing the harder part to soften and release its active constituent. Strong decoctions are prepared in two general ways. The first involves boiling the mixture longer. This is usually indicated when working with larger woody pieces. Alternatively, when smaller woody pieces are used yet a stronger remedy is wanted, the decoction is prepared and boiled for twenty minutes, then it is allowed to sit/ soak overnight before straining out the herb.

Majority of the respondents said that tanglad's hot decoction of roots is used in treating toothache. Some of them stated that they do not utilize this herbal plant due to lack of knowledge regarding the preparations of the said herbal plant. In the study done by Taylor [8], Decoctions are usually the method of choice when working with tougher and more fibrous plants, barks and roots. Instead of just steeping it in hot water, the plant material is boiled for twenty minutes, allowing the harder part to soften and release its active constituent. Strong decoctions are prepared in two general ways. The first involves boiling the mixture longer. This is usually indicated when working with larger woody pieces. Alternatively, when smaller woody pieces are used yet a stronger remedy is wanted, the decoction is prepared and boiled for twenty minutes, then it is allowed to sit/ soak overnight before straining out the herb.

Tenth in the rank shows the percentage of guyabano's pulverized seeds and seed oil and majority of the respondents said that these are effective for head lice that is most common in children. Some of them said that they do not have enough knowledge regarding this plant because they don't utilize it and they prefer to use manufactured drugs/products. Taylor [8], mentioned that Poultices are prepared in various ways, from the jungle shaman chewing up fresh leaves or roots and spitting them out onto the skin or mashing up fresh leaves or roots by hand or with mortar and pestle.

Majority of the respondents said that dalandan is being used in treating dyspepsia. According to them, herbal plants are easy to prepare. While some of them said that they are not utilizing this kind of herbal plant and they don't have enough knowledge about it. In this study done by Med J., dyspepsia symptoms including fullness, early satiety, bloating, nausea, and belching were checked under reliable sources of traditional medicine. Then medicinal plants recommended for the treatment of the symptoms were extracted from the books.

Next in the rank shows the percentage of Chico use. Majority of the respondents said that it is being used to treat diarrhea and fever. The respondents believe that the use of herbal plants has been a tradition among Filipinos. Some of them said that they are not utilizing it and they don't have enough knowledge regarding this herbal plant. The community people who doesn't have enough access to lagundi uses the leaves of chico as an alternative remedy for treating fever and diarrhea. But many respondents believed that chico is not a herbal plant. According to Stuart [19], Chico bark can be prepared through decoction and use as treatment for fever and diarrhea.

Use of duhat ranked thirteenth. Majority of respondents said that they use it as a gargle or mouthwash for gingivitis and mouth ulcerations. The respondents stated that they have been relieved by utilizing this herbal plant and according to them; duhat is also a good source of calcium and fair source of iron. It also has an antibacterial effect that's why they used it as one of their remedy for gingivitis and mouth ulcerations. And some of them said that they are not utilizing it and they do not have enough knowledge regarding this herbal plant. AgriBusiness [4], mentioned that medicines from the ten DOH-approved Philippine medicinal plants have become ever more popular among Filipinos in contrast with expensive western medicines which many cannot afford. Herbal medicine has gained wide acceptance and popularity among Filipinos in providing basic medical care.

According to the respondents, the entire plant or flower of manzanilla has the ability to treat whooping cough and they utilized it because they believe that this simple kind of herbal plant will help them relieve their cough and some of them turned to it as a remedy for numerous medical complaints including asthma, fever, and inflammations. Majority of them said that they used it for treating whooping cough. And some of them said that they don't have enough knowledge regarding this kind of herbal plant. Manzanilla plant has been used by several people due to its benefits and their beliefs that they will be relieved if they will consume this herbal plant. American Pharmaceutical Association (2007), states that chamomile appears to be relatively effective and safe when used in recommended amounts, according to a number of well-designed studies and common use.

Use of dita ranked fifteenth. Majority of the respondents said that they utilized Dita as a remedy for fevers, chronic diarrhea and dysentery. The respondents utilized it for a long time and they said that they have been relieved by utilizing it and Dita plant has a lot of benefits that's why they said that they will continue to

use it. Some of the respondents said that they are not utilizing it and they do not have enough knowledge about it, most of them are utilizing manufactured drugs than herbal plant. Dita plant also has an Ant amoebic effect that can prevent the people to have amoebiasis. Dita is used as a remedy which helps in restoring the digestive system. Kumar and Pharm (2014), mentioned that, for ages, the plant parts have been used in the treatment of chronic diarrhea, fevers, dysentery. Ayurveda has acknowledged the use of bark as alterative, tonic and gastro-intestinal sedative and have been used as suitable alternative to quinine.

Mustasa leaves have been used by the respondents in treating headaches. Some of the respondents said that they have been relieved by utilizing it. According to them, this plant has a great effect in treating common ailments. The respondents stated that they utilized it because their parents are utilizing it also. And majority of the respondents said that they are not using this kind of herbal plant due to lack of knowledge. Mustasa leaves have several benefits that will help the people to alleviate their diseases WHO 2004, One of the main reasons for the increasing use of traditional medicine is a growing trend for patients to take a more proactive approach to their own health and to seek out different forms of self-care. In the process, many consumers have turned to natural traditional medicinal products and practices, under the assumption that “natural means safe”.

Rank seventeenth showing the percentage of dalanghita use. Some of the respondents said that they are utilizing dalanghita as a pain reliever and they believe that herbal plants are more cost-effective than manufactured drugs. And majority of them said that they are not utilizing this non-approved herbal plant. The respondents stated that they seldom use dalanghita as herbal plant. They are aware that dalanghita is a fruit and not aware of its benefits as herbal remedy Bhatia (2016), Pharmaceutical drugs may not be your only path to pain relief. Natural pain treatments like herbal medicine, in which parts of a plant are used medicinally to treat health problems is an increasingly popular way to manage pain as well. Though research on herbal remedies is still in its early phases, many herbs are thought to provide pain management and decrease inflammation. However, it's important to exercise caution.

Ranked number eighteen shows that some of the respondents utilizing lubigan said that they are utilizing lubigan that is being used as digestive and also used to increase appetite especially when one of their family members got sick. And majority said that they are not utilizing it because according to them this kind of herbal plant is not readily available in their backyard. And also

most of the respondents are not aware of lubigan due to lack of knowledge on the preparation of the said herbal plant. Its unavailability to their community. In his 2003 book “Medical Herbalism: The Science and Practice of Herbal Medicine,” clinical herbalist David Hoffmann explains that bitters affect the central nervous system, which signals the gut to release digestive hormones that stimulate appetite. Bitters also increase liver bile, which aids digestion. You can take bitters as teas or tinctures. Consult a knowledgeable practitioner for use and dosage instructions.

Some of the respondents said that they have been relieved by utilizing ginkgo for asthma and digestive disorders. While majority of them said that they are not utilizing this herbal plant and most of the informants are unaware of ginkgo because it is not available in the barangay. Although it is available in the market, ginkgo is an expensive herbal plant and the respondents are unaware of its benefits. Foundhealth, Inc. 2017, For asthma sufferers, ginkgo works to inhibit PAF (platelet activating factor), a powerful inducer of platelet aggregator and anaphylactic reactions. Natural Herbs that stimulate anti-PAF activity are known to assist in the treatment of asthma, allergic reactions, thrombosis and shock.

Last in the rank shows the percentage of mamalis powdered bark that is being used as an antipyretic. Some of the respondents are utilizing Mamalis because they have been relieved and also because their parents are also utilizing it. Majority of them are not utilizing this herbal plant due to some allergic reactions from utilizing Mamalis and according to them; manufactured drugs are more accessible than herbal plants. Most of the respondents are not aware on how it is being used or what certain diseases are treated by this herbal plant. Herbal care or traditional system of medicine are used throughout the world and from century's herbs have been the original source for most of the drugs. Medicinal plants contain so many chemical compounds which the major source of therapeutic agents are to cure human disease. Recent discovery and advancement in medicinal and aromatic plants have led to the enhancement of health care of mankind.

The ten most common non-approved herbal plants utilized by the respondents are tawa-tawa, oregano, luyang dilaw, banaba, kamaria, caimito, kamias, kamansi leaves, tanglad, and guyabano's pulverized seeds and seed oil. According to the chosen respondents, they use these non-approved herbal plants because they have been relieved by utilizing it, they are aware of the benefits that they can get from utilizing this herbal plant, and also because a lot of people are utilizing it.

Traditional use of herbal medicines implies substantial historical use, and this is certainly true for many products that are available as ‘traditional herbal medicines. In many developing countries, a large proportion of the population relies on traditional practitioners and their armamentarium of medicinal plants in order to meet health care needs. Although modern medicine may exist side-by-side with such traditional practice, herbal medicines have often maintained their popularity for historical and cultural reasons. Such products have become more widely available commercially, especially in developed countries.

## CONCLUSIONS

Not all herbal plants approved by DOH are available or grown anywhere in Batangas, that is why Batangueños are not aware of the uses and preparations. Majority of the community people utilized herbal plants available in their places due to the benefit of it and its availability. The effectiveness in treating different disease conditions is the main reason why they use herbal medicine. Utilization of the non-approved herbal plants specifically tawa-tawa, oregano, and luyang dilaw was proven by the respondents effective in treating most common ailments, aside from it, it is readily available in their community rather than some DOH-approved herbal plant. An information education communication (IEC) material has been developed to enhance knowledge, skills, and attitude in utilizing it.

An Information Education Communication (IEC) material may be utilized to increase the chosen informants’ knowledge, skills, and attitude. Traditional medicine campaign may be conducted in the local barangay to increase the awareness of the community people on the proper use and the dose of the plant being used as herbal medicine. The local barangays may also put up medicinal gardens so that this indigenous knowledge will be passed on to the younger generation. This form of information dissemination may strengthen the present self-reliant health-care delivery system and will further popularize the use of these wonders of nature that will eventually contribute in increasing the diversity of these medicinal plants. Community people are encouraged to participate whenever there is a campaign regarding herbal plants or alternative medicine and be cooperative in accordance with their health. This can be accomplished by producing posters, leaflets, and other means of advertisement regarding the campaign for herbal medicine utilization.

## REFERENCES

- [1] Tilburt, J. C. and Kaptchuk, T. J. (2008). Herbal medicine research and global health: an ethical analysis, *Bull World Health Organ* v.86 (8); PMC2649468
- [2] Black, K. (2010). “Business Statistics: Contemporary Decision Making” 6<sup>th</sup> edition, John Wiley and sons
- [3] Tabinas, R.J.A. (2015). “Pharmacy in the Backyard: The Philippine Agri-Herbal Tourism Project Department of Agriculture
- [4] AgriBusiness. (2012). “10 Philippine Medicinal Plants Approved by DOH” <http://www.pinozbisnes.com/agri-business/10-philippine-medicinal-plants-approved-by-doh/>
- [5] Medical health guide. (2011). “Blended Medicine: Conventional + Alternative Medicine” <http://www.medicalhealthguide.com/index.htm>
- [6] Fact Sheet. (2003). “Traditional Medicine” <http://www.who.int/mediacentre/factsheets/2003/fs134/en/>
- [7] Famorca, Z.U., Nies, M.A., & McEwen, M. (2013). “Nursing Care of the Community”, Elsevier Mosby, p. 55-56
- [8] Taylor, L. (2005). “Herbal Preparations” [http://www.rain-tree.com/plants.htm#\\_b4av196Uk](http://www.rain-tree.com/plants.htm#_b4av196Uk)
- [9] Penecilla, G.L., & Magno, C.P. (2011). “Journal of Medicinal Plants Research”
- [10] Ulbricht, C. (2012). What Every Clinician Should Know About Herb–Supplement–Drug Interactions. *Alternative and Complementary Therapies*, 18 (2): 67 DOI: 10.1089/act.2012.18202
- [11] Romm, A. (2015). Herbs in Pregnancy: What’s Safe, What’s Not? Aviva Romm MD, <https://avivaromm.com/herbal-medicines-in-pregnancy-safety/>
- [12] International Diabetes Federation. (2015). “Bringing Research in Diabetes to Global Environment and Systems” <http://www.idf.org/BRIDGES/map/philippines>
- [13] Department of Health. (2005). “Philippine Herbal Medicine” <http://www.philippineherbalmedicine.org/>
- [14] All About Diabetes. Health Benefits of Niyog Niyogan, Chinese Honeysuckle (Niyog-niyogan) [https://zamboanga.com/z/index.php?title=Chinese\\_Honeysuckle\\_\(Niyog-niyogan\)](https://zamboanga.com/z/index.php?title=Chinese_Honeysuckle_(Niyog-niyogan))
- [15] De Padua, L.S. (2007). “Medicinal Plants (Philippine Plants)
- [16] Short, A. M. (2016). 7 Common Plants You Might Find in Your Backyard That Could Save You a Trip to the Pharmacy <https://www.alternet.org>
- [17] Herriott, E. (2007). Are Herbs Helping or Causing Your Allergies? *Youga Journal*. <https://www.yogajournal.com>
- [18] Nemeth, I. (2012). “Medicinal Plants and Drugs” p. 2-57
- [19] Stuart, G.U. (2017). “List of Philippine Herbal Medicinal Plants” <http://www.stuartxchange.org/CompleteList.html>