

Acceptability of Traditional Medicines in Selected Municipalities in the Province of Quezon: Basis for Awareness Campaign

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BACKGROUND

The use of traditional medicines continues to thrive globally, with a particularly strong presence in developing countries where herbal treatments are deeply rooted in cultural practices. In the Philippines, particularly in the province of Quezon, traditional medicinal practices remain widely accepted and practiced among local communities. This study assessed the acceptability of traditional medicines in the municipalities of Atimonan, Gumaca, and Lopez, serving as a basis for a proposed awareness campaign. Utilizing a descriptive mixed-methods research design, combining quantitative and qualitative approaches, data were gathered from 100 respondents composed of both local residents who come from nearby municipalities and community residents through a purposive sampling technique. A researcher-made questionnaire evaluated acceptability in terms of characteristics, efficacy, and safeness. Findings revealed that traditional medicinal plants such as ampalaya, sambong, lagundi, and tawa-tawa are commonly used and deemed acceptable by both respondent groups. While most respondents rated the characteristics and safeness of these medicines as acceptable to highly acceptable, challenges such as bitter taste, limited availability, and slow effects were encountered. Statistical analysis showed no significant difference in acceptability across respondent groups. Based on these results, a comprehensive awareness campaign was proposed to enhance recognition, safe use, and promotion of traditional medicinal practices in Quezon Province. The study underscores the need for integrative health policies that validate and support traditional medicine within public health systems.

Keywords: traditional medicine, herbal plants, acceptability, awareness campaign, Quezon Province

METHODS

This study employed a descriptive mixed-methods research design, combining quantitative and qualitative approaches to provide both breadth and depth in understanding the acceptability of traditional medicines in selected municipalities of Quezon Province. The quantitative component involved a structured survey using a five-point Likert scale measuring the characteristics, efficacy, and safeness of traditional medicines. The qualitative component consisted of open-ended responses and brief interviews to capture personal insights, beliefs, and experiences related to herbal practices.

Purposive sampling was used to select 100 participants—50 local residents and 50 community residents—from Atimonan, Gumaca, and Lopez. Atimonan and Gumaca are chosen for the conduct of the study as these municipalities have higher practice in traditional medicines. This sampling method was appropriate as it targeted individuals with direct experience or familiarity with traditional medicines, ensuring that responses were information-rich and contextually grounded.

The primary research instrument was a researcher-made questionnaire composed of two sections: the first included close-ended questions on the perceived acceptability of traditional medicinal plants, and the second featured open-ended questions to allow for narrative responses. Data Collection Procedure Paper-based surveys were distributed with verbal briefings. Respondents were also asked to share experiences or anecdotes about their use of traditional medicine, some of which were recorded during field visits and translated from Filipino to English when needed. As to Data Analysis: Quantitative data were analyzed using frequency distribution, weighted mean, and independent samples t-tests. Qualitative responses were subjected to thematic analysis,

identifying recurring patterns such as trust in herbal efficacy, intergenerational transmission of knowledge, and accessibility issues. These findings were triangulated with statistical results to provide a more nuanced interpretation.

Quotes from Respondents:

- “My grandmother’s sambong decoction was our only medicine growing up—no need for pharmacy pills.”
- “I use ampalaya tea for my blood sugar. It works, but the taste is a challenge.”
- “Some plants are rare now. We used to pick them easily, but now they’re hard to find.”

RESULTS

The Five-Point Likert Scale and the following ranges of interpretation and remarks are used in the study:

Value Scale	Verbal Interpretation	Range
5	Highly Encountered (HE) / Highly Acceptable (HA)	4.20-5.00
4	Encountered (E) / Acceptable (A)	3.40-4.19
3	Moderately Encountered (ME) / Moderately Acceptable (MA)	2.60-3.39
2	Least Encountered (LE) / Least Acceptable (LA)	1.80-2.59
1	Not Encountered (NE) / Not Acceptable (NA)	1.00-1.79

Sub-Problem No. 1 What are the traditional medicinal plants uses in selected municipalities in Quezon province?

Table 2. Traditional Medicinal Plants

Indicators	Local Residents		Community Resident		Frequency		Rank
	WM	VI	WM	VI	WM	VI	
1. Ampalaya as a treatment for diabetes	4.28	HA	4.62	HA	4.45	HA	1
2. Sambong lowering blood pressure, healing urinary tract infection. Lowering fever	4.20	HA	4.44	HA	4.32	HA	2
3. Lagundi as relief for asthma	4.12	A	4.48	HA	4.30	HA	3
4. Tawa tawa infection, anxiety, diarrhea, asthma, dengue fever	4.16	A	4.32	HA	4.24	HA	4
5. Turmeric as a remedy for various disease including a cough	3.90	A	4.22	HA	4.06	A	5
6. Malunggay as a treatment for cancer	3.96	A	3.96	A	3.96	A	6
7. Niyog niyogan eliminate intestinal parasites	3.96	A	3.86	A	3.91	A	7
8. Garlic used to reduce cholesterol level in the blood	3.84	A	3.80	A	3.82	A	8
9. Pansit-pansitan treatment for wounds	3.60	A	3.98	A	3.79	A	9
10. Papaya as a treatment for wounds	3.58	A	3.46	A	3.52	A	10
11. Acapulco as a cure for a cough	3.28	HA	3.36	HA	3.32	HA	11
Overall Weighted Mean	3.90	A	4.05	A	3.97	A	

Legend: 4.20 - 5.00 = Highly Acceptable; 3.40 - 4.19 = Acceptable; 2.60 - 3.39 = Moderately Acceptable; 1.80 - 2.59 = Least Acceptable; 1.00 - 1.79 = Not Acceptable

As displayed in Table 2, the acceptability of traditional medicinal plants was rated as identified with an overall composite weighted mean of 3.97. Four (4) items were rated as highly identified, namely; Ampalaya as a treatment for diabetes with a composite weighted mean of 4.45 as rank 1; Sambong lowering blood pressure, healing urinary tract infection. Lowering fever with a composite weighted mean of 4.32 as rank 2; Lagundi as relief for asthma with a composite weighted mean of 4.30 as rank 3; and Tawa tawa infection, anxiety, diarrhea, asthma, dengue fever with a composite weighted mean of 4.24 as rank 4. Six (6) items were rated as acceptable,

namely; Turmeric as a remedy for various disease including a cough with a composite weighted mean of 4.06 as rank 5; Malunggay as a treatment for cancer with a composite weighted mean of 3.96 as rank 6; Niyog niyogan eliminate intestinal parasites with a composite weighted mean of 3.91 as rank 7; Garlic used to reduce cholesterol level in the blood with a composite weighted mean of 3.82 as rank 8; Pansit pansitan treatment for wounds with a composite weighted mean of 3.79 as rank 9; and Papaya as a treatment for wounds with a composite weighted mean of 3.52 as rank 10. One item was rated as moderately acceptable, this was; Acapulco as a cure for a cough with a composite weighted mean of 3.32 as rank 11.

Further, the group of respondents' assessment on the acceptability of traditional medicine was rated as acceptable with an overall weighted mean of 3.97, these were: local patients with a composite weighted mean of 3.90; and community patients with a composite weighted mean of 4.05.

Sub-Problem No. 2: How do the respondents assess the Acceptability of Traditional Medicine in Selected Municipalities of Quezon Province in terms of: characteristics, efficacy, and safeness?

Characteristics/Attribute

Table 3. Acceptability of Traditional Medicine as to Characteristics/Attribute

Indicators	Local Residents		Community Residents		Frequency		Rank
	WM	VI	WM	VI	WM	VI	
1. Herbal plants used will be taken internally	4.22	HA	4.14	A	4.18	A	1
2. Herbal medicine for external use as a patch	4.06	A	4.22	HA	4.14	A	2
3. "Hilot" or traditional massage in part of the traditional medicine	3.92	A	4.20	HA	4.06	A	3
4. It uses liquid herbal plants for external medication	3.66	A	4.22	HA	3.94	A	4
Overall Weighted Mean	3.97	A	4.20	HA	4.08	A	

Legend: 4.20 - 5.00 = Highly Acceptable; 3.40 - 4.19 = Acceptable; 2.60 - 3.39 = Moderately Acceptable; 1.80 - 2.59 = Least Acceptable; 1.00 - 1.79 = Not Acceptable

As revealed in Table 3, the acceptability of traditional medicine as to characteristics/attribute was rated as acceptable with an overall composite weighted mean of 4.08. All items were rated as acceptable, namely; Herbal plants used taken internally with a composite weighted mean of 4.18 as rank 1; Herbal medicine for external use as a patch with a composite weighted mean of 4.14 as rank 2, "Hilot" or traditional massage in part of the traditional medicine with a composite weighted mean of 4.06 as rank 3; and It uses liquid herbal plants for external medication with a composite weighted mean of 3.94 as rank 4.

Further, the group of respondents' assessment on the acceptability of traditional medicine as to characteristics/attribute were rated as acceptable, these were: local patients with a composite weighted mean of 3.97; and community patients with a composite weighted mean of 4.20.

Efficacy

Table 4. Acceptability of Traditional Medicine as to Efficacy

Indicators	Local Residents		Community Residents		Frequency		Rank
	WM	VI	WM	VI	WM	VI	
1. It should be taken in regularly to become effective	3.86	A	4.24	HA	4.05	A	1
2. Herbal medication effect is for temporary	3.86	A	4.06	A	3.96	A	2
3. Traditional medicine effect is not immediate	3.90	A	3.86	A	3.88	A	3

4. Herbal plants use has the same effect as commercialized medicine	3.90	A	3.80	A	3.85	A	4
Overall Weighted Mean	3.88	A	3.99	A	3.94		

Legend: 4.20 - 5.00 = Highly Acceptable; 3.40 - 4.19 = Acceptable; 2.60 - 3.39 = Moderately Acceptable; 1.80 - 2.59 = Least Acceptable; 1.00 - 1.79 = Not Acceptable

As portrayed in Table 4, the acceptability of traditional medicine as to efficacy was rated as acceptable with an overall composite weighted mean of 3.94. All items were rated as acceptable, namely; It should be taken in quality regularly to become effective with a composite weighted mean of 4.05 as rank 1; Herbal medication effect is for temporary with a composite weighted mean of 3.96 as rank 2; Traditional medicine effect is not immediate with a composite weighted mean of 3.88 as rank 3; and Herbal plants use has the same effect as commercialized medicine with a composite weighted mean of 3.85 as rank 4.

Further, the group of respondents' assessment on the acceptability of traditional medicine as to efficacy were rated as acceptable, these are local patients with a composite weighted mean of 3.88; and community patients with a composite weighted mean of 3.99.

Safeness

Table 5. Acceptability of Traditional Medicine as to Safeness

Indicators	Local Residents		Community Residents		Frequency		Rank
	WM	VI	WM	VI	WM	VI	
1. Herbal plants are safe for internal use	4.26	HA	4.24	HA	4.25	HA	1
2. Hilot is safe for external use	3.78	A	4.04	A	3.91	A	2
3. No side effects	3.84	A	3.96	A	3.90	A	3
Overall Weighted Mean	3.96	A	4.08	A	4.02	A	

Legend: 4.20 - 5.00 = Highly Acceptable; 3.40 - 4.19 = Acceptable; 2.60 - 3.39 = Moderately Acceptable; 1.80 - 2.59 = Least Acceptable; 1.00 - 1.79 = Not Acceptable

As exposed in Table 5, the acceptability of traditional medicine as to safeness was rated as acceptable with an overall composite weighted mean of 4.02. One item was rated as highly acceptable, this was; herbal plants are safe for internal use with a composite weighted mean of 4.25 as rank 1. Two (2) items were rated as acceptable, namely; hilot has no side effects with a composite weighted mean of 3.91 as rank 2; and no side effects with a composite weighted mean of 3.90 as rank 3.

Further, the group of respondents' assessment on the acceptability of traditional medicine as to safeness were rated as acceptable, these were: local patients with a composite weighted mean of 3.96; and community patients with a composite weighted mean of 4.08.

Table 6. Summary of the Acceptability of Traditional Medicine

Indicators	Local Residents		Community Residents		Composite		Rank
	WM	VI	WM	VI	WM	VI	
1.Characteristics/Attribute	3.97	A	4.20	HA	4.08	A	1
2.Efficacy	3.88	A	3.99	A	3.94	A	3
3.Safeness	3.96	A	4.08	A	4.02	A	2
Total Weighted Mean	3.94	A	4.09	A	4.01	A	

Legend: 4.20 - 5.00 = Highly Acceptable; 3.40 - 4.19 = Acceptable; 2.60 - 3.39 = Moderately Acceptable; 1.80 - 2.59 = Least Acceptable; 1.00 - 1.79 = Not Acceptable

As exhibited in Table 6, the summary of the acceptability of traditional medicine was rated as acceptable with a total weighted mean of 4.01. All items were rated as acceptable, namely; characteristics/attribute with a

composite weighted mean of 4.08 as rank 1; safeness with a composite weighted mean of 4.02 as rank 2; and efficacy with a composite weighted mean of 3.94 as rank 3.

Sub-Problem No. 3 Is there significant difference in the assessment of the respondents as to acceptability of traditional medicinal plants?

Table 7. Comparison of Assessment on the Acceptability of Traditional Medicinal Plants

Variable	t-value	Decision	Interpretation
1.Characteristics/Attribute	0.16103	Accept Ho	Not Significant
2.Efficacy	0.07842	Accept Ho	Not Significant
3.Safeness	0.0733	Accept Ho	Not Significant
Overall	0.09374	Accept Ho	Not Significant

Legend: cv = 1.658, df = 98 @0.05 level of significance

As depicted in Table 7, the computed t-values on the Acceptability of Traditional Medicinal Plants as assessed by local resident and community residents were as follows: characteristics/attribute (0.16103), efficacy (0.07842), and safeness (0.0733) were lower than the critical value of 1.6584 with the degree of freedom of 98 at 0.05 level of significance.

On the other hand, the overall computed t-value on the Acceptability of Traditional Medicinal Plants as assessed by local residents and community residents is 0.09374 which is lower than the critical value of 1.658 with the degree of freedom of 98 at 0.05 level of significance. Hence, there is no significant difference in the assessment of Acceptability of Traditional Medicinal Plants. Therefore, the hypothesis is accepted.

Sub-Problem No. 4 What are the problems encountered regarding traditional medicine?

Table 8. Problems Encountered

Indicators	Local Residents		Community Residents		Composite		Rank
	WM	VI	WM	VI	WM	VI	
1. Bitter Taste of Herbal Plants	4.28	HE	4.38	HE	4.33	HE	1
2. Some of the plants are the best use when fresh only	4.30	HE	4.14	E	4.22	HE	2
3. The roughness of some herbal plants	4.24	HE	4.18	E	4.21	HE	3
4. Unwanted Smell of some Herbal Medicine	4.20	HE	3.94	E	4.07	E	4
5. Slow Effect of Some Herbal Medicine	4.10	E	3.98	E	4.04	E	5
6. Some herbal plants grow in remote areas	3.98	E	4.02	E	4.00	E	6
7. The effects of some herbal plants are very temporary	4.08	E	3.80	E	3.94	E	7
8. Some herbal plants cause allergy	4.12	E	3.64	E	3.88	E	8
Overall Weighted Mean	4.16	E	4.01	E	4.09	E	

Legend: 4.20 - 5.00 = Highly Encountered; 3.40 - 4.19 = Encountered; 2.60 - 3.39 = Moderately Encountered; 1.80 - 2.59 = Least Encountered; 1.00 - 1.79 = Not Encountered

As depicted in Table 12, the problems encountered in traditional medicine were rated as encountered with an overall composite weighted mean of 4.09. Three (3) items were rated as highly encountered, namely; bitter taste of herbal plants with a composite weighted mean of 4.33 as rank 1; some of the plants are the best use when fresh with a composite weighted mean of 4.22 as rank 2; the roughness of some herbal plants with a composite weighted mean of 4.21 as rank 3. Five (5) items were rated as encountered, namely; unwanted smell of some herbal medicine with a composite weighted mean of 4.07 as rank 4; slow effect of some herbal medicine with a composite weighted mean of 4.04 as rank 5; some herbal plants grow in remote areas with a composite weighted

mean of 4.00 as rank 6; the effects of some herbal plants are very temporary with a composite weighted mean of 3.94 as rank 7; and some herbal plants cause allergy with a composite weighted mean of 3.88 as rank 8.

DISCUSSION

The findings confirm that traditional medicine holds a strong place in the healthcare beliefs and practices of residents in Quezon Province. The use of specific plants such as ampalaya and sambong mirrors findings from other regions where these are also considered culturally and medicinally significant (Dela Cruz & Racelis, 2020; WHO, 2023). The acceptability of these plants—despite acknowledged challenges like bitter taste or slow effects—demonstrates a pragmatic understanding of their value. It is worth noting that no significant difference was found between local and community groups, reinforcing the uniformity of these beliefs in rural and semi-urban populations.

However, there is a critical need for structured awareness programs to ensure safe use, scientific validation, and integration into broader public health initiatives. These findings align with previous literature that calls for combining traditional knowledge with modern safety and health promotion frameworks (Li et al., 2024; Mercado & Perilla, 2021).

Below are the Pharmacological Properties of Commonly Used Herbs:

- Ampalaya – Contains charantin and polypeptide-p, compounds shown to have hypoglycemic effects (Tan et al., 2023).
- Sambong – Rich in flavonoids and essential oils; exhibits diuretic and antiurolithic properties (DOH, 2022).
- Lagundi – Contains chrysophenol D with anti-inflammatory and bronchodilatory effects (Francisco et al., 2021).
- Tawa-tawa – Has quercetin and flavonoids, traditionally used for dengue supportive therapy due to platelet-boosting potential (Santos et al., 2020).
- Turmeric – Curcumin content provides anti-inflammatory, antioxidant, and antimicrobial effects (Singh et al., 2022).
- Malunggay – Rich in vitamins A, C, and E; contains glucosinolates with anticancer potential (Reyes et al., 2023).
- Niyog-niyogan – Contains quisqualic acid, effective against intestinal parasites (DOH, 2021).
- Garlic – Allicin compound reduces cholesterol and exhibits antimicrobial properties (Chen et al., 2022).
- Pansit-pansitan – Contains peperomine with analgesic and anti-inflammatory effects (Gomez et al., 2020).
- Papaya – Papain enzyme aids in wound healing and digestion; seeds have antiparasitic properties (Lopez et al., 2021).
- Acapulco – Contains chrysophanol and aloe-emodin; effective against fungal infections (WHO, 2023).

CONCLUSION

The study concludes that traditional medicines remain widely accepted in the selected municipalities of Quezon Province. Respondents rated traditional medicinal plants as acceptable or highly acceptable in terms of characteristics, efficacy, and safeness. The absence of significant differences between the two respondent groups underscores a shared cultural appreciation for these remedies. Despite some challenges, such as bitter taste and slow effects, the general acceptability remains high.

Recommendations: Proposed Awareness Campaign

Based on the findings, the following multi-pronged awareness campaign is recommended:

1. **Local Herbal Plant Nursery & Distribution Program** - Partner with LGUs and barangays to establish herbal nurseries and distribute starter kits (e.g., seeds or seedlings of lagundi, sambong, ampalaya, etc.).
2. **Integration in School Curriculum** - Coordinate with DepEd to integrate basic herbal medicine education in Science and Health subjects, especially in elementary and junior high school.
3. **Barangay-Level Health Seminars with DOH and DOST Experts** - Conduct monthly educational seminars at barangay health centers involving certified traditional healers, DOH-trained community workers, and DOST researchers
4. **Annual “Herbal Medicine Fair”** - Organize a provincial fair showcasing local herbs, albularyo demonstrations, scientific validation booths, and exhibitions of Quezon's traditional health culture
5. **Digital Campaign via LGU and DOH Websites and Social Media** - Develop infographics, short videos, and online articles about Quezon's herbal practices, myths vs facts, and available resources.
6. **Accreditation and Capacity-Building for Albularyos and Hilots** - Partner with TESDA and DOH to train and accredit traditional healers, with updated modules on safe practices and patient referral systems.
7. **Herbal Garden in Every School and Barangay** - Mandate the establishment of “Gulayan at Halamang Gamot sa Paaralan” and “Barangay Halamanan ng Gamot” through local ordinances.
8. **Production of IEC Materials (Flyers, Posters, Booklets)** - Print and distribute localized educational materials in Filipino/Tagalog and local dialects featuring visuals and simple explanations of common medicinal plants
9. **Traditional Medicine Tourism Program** - Integrate Quezon's herbal medicine heritage into eco-tourism or health tourism packages (e.g., guided herbal walks, community farm stays, hilot experiences).
10. **Provincial Ordinance on Traditional Medicine Awareness** - Draft and pass a provincial ordinance institutionalizing awareness campaigns, partnerships, and funding mechanisms for the use and research of traditional medicines

Preliminary Strategies for the Awareness Campaign with Community Input

The proposed awareness campaign will follow a participatory approach to ensure local relevance and sustained impact. Preliminary strategies will involve:

1. **Community Consultation Workshops** – Conduct barangay-level Focus Group Discussions with residents, traditional healers, and barangay health workers to validate campaign content, identify culturally sensitive messages, and address misconceptions.
2. **Pilot Education Modules** – Test educational materials in selected barangays for clarity, accuracy, and engagement, adjusting based on feedback.
3. **Integration with Existing Health Programs** – Coordinate with DOH's Herbal Medicine Program and LGU health initiatives to align messaging.
4. **Youth Engagement Activities** – Involve students in documenting plant availability, interviewing elder practitioners, and sharing findings online.
5. **Feedback & Evaluation Mechanisms** – Distribute post-activity feedback forms and conduct short interviews to gather insights on campaign effectiveness.

For future researchers, it is recommended to have Visual Mapping of Plant Availability and Usage Frequency to improve the interpretation of data as to use of traditional herbal medicines. The following are some of the mapping that can be done:

Geographically mark where each herbal plant is most abundant within Atimonan, Gumaca, and Lopez.

Use color-coded intensity to represent frequency of use based on survey data.

Highlight gaps in availability for plants that require cultivation programs.

Methodology: Gather GPS coordinates or barangay-level location data where plants are sourced; use Geographic Information System (GIS) software or online mapping tools; overlay usage frequency data onto geographic distribution.

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