

Ethnobotanical study of medicinal plants used in an urban community in Iloilo City, Philippines

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Abstract. Cordero CS, Guillergan LR, Nievaes MFJ, Alejandro GJD. 2025. *Ethnobotanical study of medicinal plants used in an urban community in Iloilo City, Philippines. Biodiversitas 26: 2167-2181.* The use of medicinal plants for treating health problems remains prevalent, even in urban areas where modern medicine is readily available. However, anthropogenic interference may lead in the permanent loss of this knowledge. Therefore, this study aims to document the medicinal plants used in an urban community in Iloilo City, Philippines. A total of 60 participants were selected through convenience sampling and engaged in semi-structured and informal interviews conducted from December 2023 to January 2024. To evaluate the significance of the plants, the Use Value (UV), Relative Frequency of Citation (RFC), and Fidelity Level (FL) were calculated. Fifty-five medicinal plant species, representing 53 genera and 34 families, were recorded as treatments for 36 diseases across 13 different disease categories. Leaves were the most commonly used plant part, with the preferred methods of preparation and application including drinking or bathing the decoction and pounding the leaves to extract the juice for direct application. Ninety percent of all documented plants were either not assessed or listed as least concern on the IUCN Red List, and most of them are non-native to the Philippines. *Blumea balsamifera* had the highest UV (0.683), *Moringa oleifera* had the highest RFC (0.650), and *Pithecellobium dulce* (Roxb.) Benth., *Ocimum* sp., and *Tamarindus indica* all tied for the highest FL (100%). Overall, this study emphasized the importance of medicinal plants in disease treatment and could serve as a foundation for future pharmacological research into drug development and formulation. Additionally, it raises awareness of the potential role of plants in healthcare systems.

Keywords: Ethnobotany, Iloilo City, medicinal plants, Philippines, traditional use

INTRODUCTION

The Philippines is one of the fastest urbanizing nations in Asia and the Pacific region, with its urban population increasing by over 50 million in the past five decades, and by 2050, approximately 102 million people are expected to reside in cities (The World Bank Group 2017). Iloilo City, in Western Visayas Region is a highly urbanized government center and plays a critical role in trade, commerce, education, research, and tourism with all its barangays or districts classified as urban (UN-Habitat 2014). Iloilo City, located along the central coastline of Iloilo Province on Panay Island, spans a land area of 78.34 km², divided into 180 barangays and organized into seven districts, one of which is Jaro (City Planning and Development Office 2021). It was once known as the “Most Loyal and Noble City,” a title bestowed in recognition of its people’s unwavering loyalty to the Spanish crown during the Spanish colonization period (City Planning and Development Office 2023). In the late 19th century, it was also called the “Queen City of the South,” as it became the Philippines’ second city after Manila, owing to its role as a center of trade and the booming sugar industry (Province of Iloilo 2021). In 2023, the United Nations Educational, Scientific and Cultural Organization (UNESCO) designated Iloilo City as a “Creative City of Gastronomy,”

highlighting the role of gastronomy in fostering social cohesion and strengthening urban resilience (UNESCO 2023).

The rapid expansion of Iloilo City’s construction industry has drastically changed land use, converting agricultural and idle lands into infrastructure developments. One such area is Barangay Tacas in the Jaro District, once dominated by farmlands, but now with reduced agricultural space due to housing projects, road-widening, and the flood control project. These changes, along with the rise of nearby shopping complexes and townships, have introduced a modernized lifestyle (City Planning and Development Office 2021), threatening the preservation of traditional medicinal knowledge in the community.

Traditional knowledge systems worldwide are rapidly disappearing due to the influence of Western culture, deforestation, and biodiversity loss (Sinthumule 2023). While traditional knowledge of plants (often referred to as ethnobotanical knowledge) is naturally passed down through generations, its transmission is uncertain (Polat et al. 2017; Çakılciöğlü 2020) and evolves over time (Babacan et al. 2022), putting it at risk. Therefore, documenting this knowledge before it is lost or forgotten is crucial. Additionally, documenting traditional knowledge of medicinal plants (or biodiversity in general) is particularly important given the high rate of biodiversity extinction. Before a species is lost, it is essential to gather information about it, especially its

potential benefits, which can be preserved through traditional knowledge. This documentation also holds significant value for several reasons: it provides a basis for scientific research, leading to the discovery of new bioactive compounds (Balick and Cox 2020); it supports sustainable healthcare solutions, where locally available plants that are accessible and affordable offer a valuable complement to modern healthcare systems, especially in resource-limited settings; and it helps preserve cultural heritage (WHO 2023).

Medicinal plants are included in the Philippines' National Essential Medicines List to meet priority health care needs (WHO 2019). Although extensive research has been conducted among indigenous and rural communities across the country's major islands, studies in Iloilo and neighboring provinces remain limited, focusing predominantly on indigenous groups (Cordero et al. 2020; Cordero and Alejandro 2021; Cordero et al. 2022a). Ethnobotanical investigations within Iloilo are similarly scarce, with only a few studies involving indigenous peoples (Madulid et al. 1989; Cordero et al. 2022a) and rural communities (Elefan 2007; Tantiado 2012; Cordero et al. 2023; Tiquio et al. 2024). Globally, the use of medicinal plants in urban environments has been increasingly documented (Alqethami et al. 2017; Borges et al. 2020; González-Ball et al. 2022; Casagrande et al. 2023; da Conceição Barbosa et al. 2025), as has traditional knowledge in the northern and southern Philippines (Odchimar et al. 2017; Dapar et al. 2020; Fabie-Agapin 2020; Caunca and Balinado 2021). However, no published studies to date have examined medicinal plant use in the central Philippines, particularly in Iloilo City. Hence, this study aims to document, identify, and classify medicinal plants and their uses in traditional medicine within an urban community in Brgy. Tacas, Jaro, Iloilo City,

Philippines. It also examines the geographical distribution, endemism, and conservation status of the documented medicinal plants. The findings from this study will contribute to the rich traditional knowledge of Filipinos in using medicinal plants for primary health care, particularly in urban communities.

MATERIALS AND METHODS

Study area

The study was conducted in Barangay (Brgy.) Tacas, Jaro, Iloilo City, Philippines (Figure 1), which lies approximately 10°45' N and 122°33' E. The total land area of the barangay is around 4.2 km². It is characterized by wide plains with multiple housing areas, subdivisions, and industrial complexes, making it a good model of an urban community that is facing a high risk of permanent loss of traditional knowledge. According to the 2023 data obtained from the office of the barangay, the population of the area is approximately 6,000 individuals. Additionally, the barangay health center serves as the lone healthcare facility within the barangay. The site is easily accessible through any mode of transportation.

Data collection

The residents of the barangay, aged 40 to 69 years old, served as the participants of the study. Appropriate permits issued by the office of the barangay that allowed access to the community were secured. During a meeting, the barangay captain was assured that the study was for academic purposes only. The research proceeded under mutually agreed terms between the parties involved.

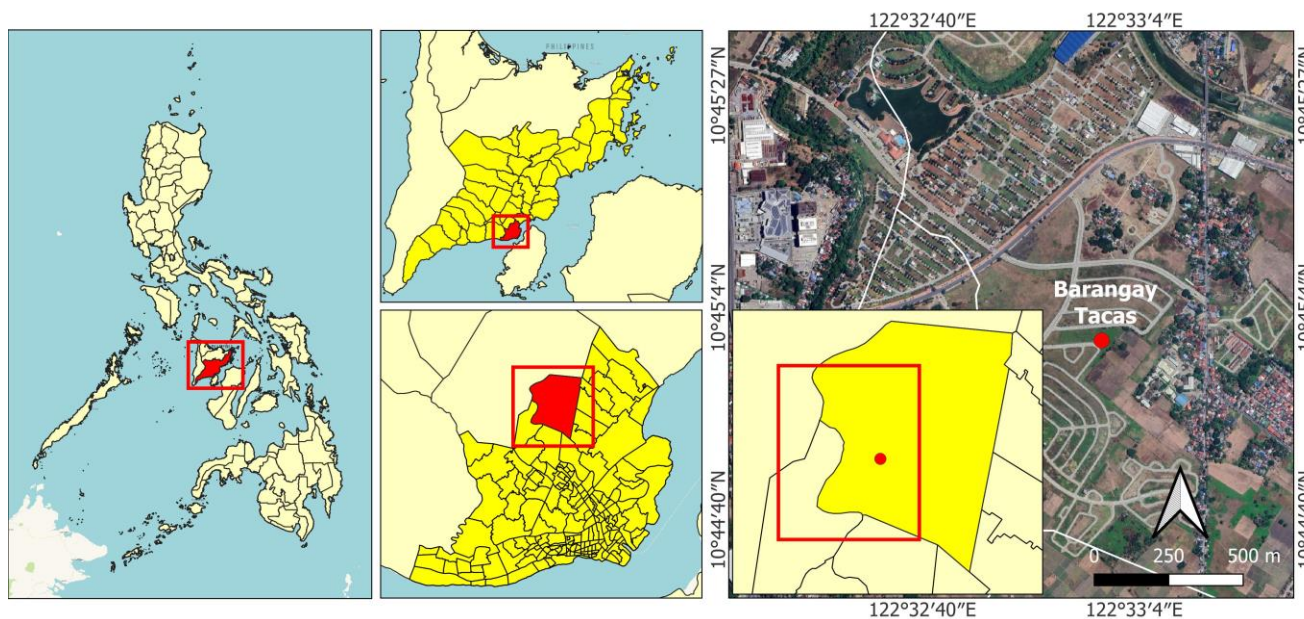


Figure 1. Location of the study area in Brgy. Tacas in Iloilo City, Iloilo Province, Panay Island, Philippines

Fieldworks were conducted from December 2023 to January 2024. A semi-structured questionnaire and informal interviews were conducted to obtain data from the participants as it was deemed the most effective way to extract data in a short amount of time. The University of the Philippines Research Ethics Board reviewed and approved the questionnaire that was used as the main basis for the interviews. Consent from the participants was also obtained prior to the actual data-gathering procedure.

The participants were selected using a convenience sampling method, prioritizing those who were most readily available and accessible to the researchers. To minimize or avoid sampling bias, the study followed various procedures recommended by Stratton (2021), such as conducting interviews at different times and on different dates to enhance representativeness and participation. This method is widely used due to its time efficiency and cost-effectiveness, despite certain limitations (Espinosa et al. 2012; Stratton 2021). As a result, this study did not statistically analyze informants' plant knowledge in relation to their social variables due to the constraints of the sampling design.

Interviews with the informants were conducted individually and in isolation to prevent any interference that might influence their responses during the data-gathering process. Background information, including age, sex, civil status, educational attainment, and occupation, was collected. Informants were then asked about their use of medicinal plants. The growth habitus, conservation status, and plant parts used of the medicinal plants were also documented. Medicinal plants were observed to be cultivated around household premises, either as garden lawns of varying sizes, in empty and unoccupied land, or in areas previously used as rice paddy fields. Some were also found growing along roadsides, while others were obtained from local markets. Identification of plant species was done by comparing the specimens shown by the participants to the online photographs found in The Co's Digital Flora of the Philippines (Pelser et al. 2011 onwards) and the Royal Botanic Gardens, Kew online database (POWO 2024). The same databases were also used to verify the family and scientific names.

Data analyses

Documentation of the cited medicinal plants was done up to the species level if possible. The conservation status of each reported medicinal plant was based on the online database provided by the International Union for Conservation of Nature (IUCN) Red List of Threatened Species (IUCN 2024). The plant species were then classified based on the 16 disease categories published by the International Classification of Diseases (ICD-11) by the World Health Organization (ICD-11 2024). The following are the aforementioned disease categories: a) infectious and parasitic diseases, b) neoplasms and tumors, c) endocrine, metabolic, and nutritional diseases, d) diseases of nervous system, e) eye diseases and other vision-related complications, f) diseases of the ear, g) diseases of the circulatory system and blood-forming organs, h) diseases and symptoms involving the respiratory system, i) diseases and symptoms involving the digestive system j) diseases

and symptoms involving the skin, k) diseases and symptoms involving connective tissues and musculoskeletal system, l) diseases of the genitourinary system, m) pregnancy, childbirth, puerperium, and infant care, n) general symptoms of diseases, o) injuries from other external causes, and p) other factors that affect health status. The study used four statistical parameters to quantify the importance and relevance of each plant, namely, Use Value (UV), Fidelity Level (FL), Informant Consensus Factor (ICF), and Relative Frequency of Citation (RFC). The UV indicates the relative importance of a plant species. It is calculated using the following formula: $UV = U_i/N$, where U_i is the number of use reports per species while N is the total number of informants (Cordero et al. 2022a). A Use Report (UR) is recorded when an informant cites a plant for any medical purpose. The FL value indicates the ratio of the number of informants that cited a species for a specific purpose and the number of participants that cited the species for any purpose. It can be calculated using the following formula: $FL = (N_p/N) \times 100$, where N_p is the total number of participants that cited the plant for a specific purpose while N refers to the number of participants who mentioned the plant for any purpose (Friedman et al. 1986). The ICF describes the degree of consensus agreement between the informants regarding the plants used for a specific disease category. It can be calculated using the following formula: $ICF = (N_{ur}/N_i)/(N_{ur}-1)$, where N_{ur} is the total number of use reports in a category while N_i refers to the total number of cited species in that disease category (Heinrich et al. 1998). The RFC value quantified the relative importance of a plant species to the community. It is calculated using the following formula: $RFC = F_c/N$, where F_c is the number of informants that mentioned the plant while N is the total number of participants (Cordero et al. 2022a).

RESULTS AND DISCUSSION

Demographic profile of the participants

A total of 60 participants, all residents of Brgy. Tacas, Jaro, Iloilo City, underwent face-to-face interviews from December 2023 to January 2024. The ages of the participants ranged from 40 to 69, with a mean age of 54 years old. Of the participants, 12 (20%) were male, and 48 (80%) were female (Table 1). Their highest educational attainments varied from elementary to college level: 6 (10%) had completed elementary, 21 (35%) had completed secondary, and 33 (55%) had attained a tertiary education. In terms of civil status, the majority, 50 (83%) of the 60 participants were married at the time of the interview. The most common occupation among participants was housewife, reported by 28 (47%), followed by the occupational group including employed participants, such as teachers, seafarers, nurse aides, and government employees, among others. A summary of the demographic profile of the 60 study participants is provided in Table 1.

Medicinal plant diversity and composition

The study recorded a total of 55 medicinal plant species from 53 different genera and 34 families (Table 2). Among the 53 recorded genera, only two included multiple species: *Coleus* and *Citrus*. The families Lamiaceae and Fabaceae were the most well-represented, each with five species (Figure 2). The species in Lamiaceae included *Coleus amboinicus* Lour., *C. scutellarioides* (L.) Benth., *Premna odorata* Blanco, *Ocimum* sp., and *Vitex elmeri* Moldenke. Most of these species can be found in the home gardens of the respondents. The five species in Fabaceae family were *Gliricidia sepium* (Jacq.) Kunth, *Pithecellobium dulce* (Roxb.) Benth., *Tamarindus indica* L., *Mimosa pudica* L., and *Pterocarpus indicus* Willd. This diverse family is commonly grown not only for their fruits (*P. dulce* and *T. indica*) but also for their timber (*P. indicus*) and as a community hedge (*G. sepium*). The next most frequently cited family was Malvaceae, represented by three species: *Abelmoschus esculentus* (L.) Moench, *Corchorus olitorius* L., and *Theobroma cacao* L. These medicinal plants are also used as food sources. The families Acanthaceae, Apocynaceae, Asteraceae, Cucurbitaceae, Euphorbiaceae, Myrtaceae, Piperaceae, Poaceae, Solanaceae, and Zingiberaceae each included two genera and two species. Rutaceae was represented by a single genus and two species, while the remaining twenty-one families each had a single genus and one medicinal species. Most of these plants were cultivated around household premises, in garden lawns of various sizes, or in vacant land spaces commonly found in the residential areas of Brgy. Tacas, Jaro, Iloilo City.

The documented medicinal plants had four growth forms: shrubs, trees, herbs, and climbers. As shown in Figure 3, trees and herbs were the most common growth forms (40% each), followed by shrubs (13%) and climbers (7%). According to the participants, these trees and shrubs are often found growing along roadsides and in areas that were once used as rice paddies.

Table 1. Demographic profile of the informants in Brgy. Tacas, Jaro, Iloilo City, Philippines

Social group	Description	No. of informants (Total = 60)	Percentage from the total (%)
Sex	Male	12	20
	Female	48	80
Age	40-49	20	33
	50-59	21	35
	60-69	19	32
Educational attainment	Elementary	6	10
	Secondary	21	35
	Tertiary	33	55
Civil Status	Single	6	10
	Married	50	83
	Widowed	4	7
Occupation	Housewife	28	47
	Self-employed	9	15
	Unemployed	1	2
	Employed	17	28
	Brgy. official Retired employee	2 3	3 5

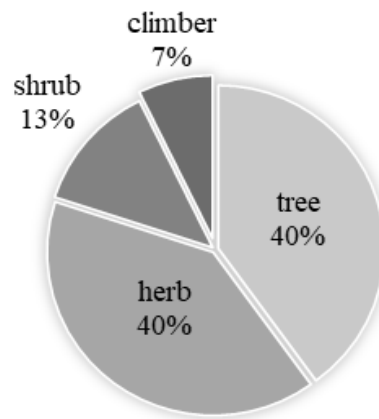


Figure 3. Medicinal plant growth forms

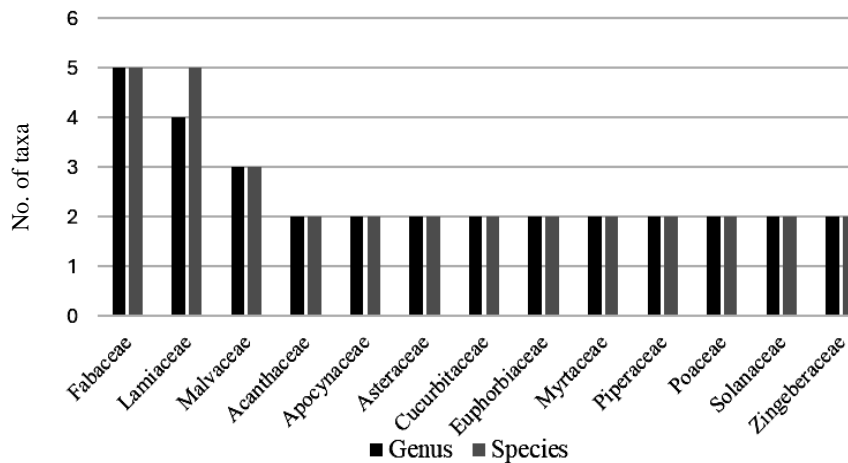


Figure 2. Most represented plant families and genera

Medicinal plant parts and methods of preparation

This study recorded a total of nine different plant parts utilized for disease treatment (Figure 4): leaves, fruits, rhizomes, whole plants, flowers, bark, bulbs, roots, and stems. The most frequently cited part was the leaf, comprising 73% of all citations, followed by fruit (7%) and the whole plant (5%). Participants described various methods of preparation and administration for medicinal plants. In this study, eight methods were mentioned, with decoction (33%), pounding or crushing (30%), and direct application (18%) being the most prevalent (Figure 5). The most common method, decoction (33%), typically involves oral consumption or use for bathing. For pounding or crushing, the most frequently cited plant leaves subjected to this method were *Blumea balsamifera* (L.) DC., *Artemisia vulgaris* L., and *Moringa oleifera* Lam., which were then applied to the forehead or on the affected area.

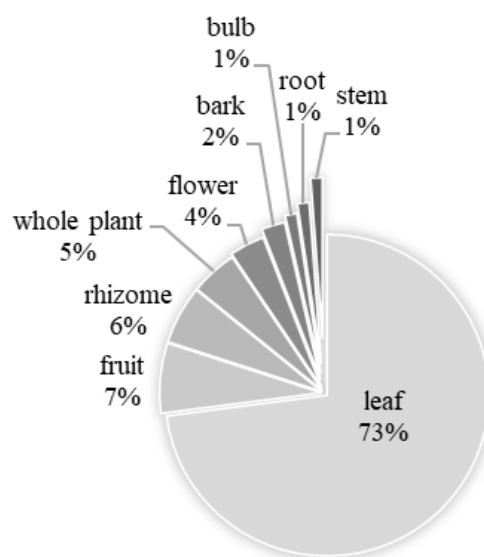


Figure 4. Medicinal plant parts cited by the participants

Conservation status and origin

Using the International Union for Conservation of Nature (IUCN) Red List of Threatened Species database, the latest conservation status of the identified plants was determined. They were classified as either least concern, data deficient, not assessed, or endangered (Table 2). Of the 53 medicinal plants identified up to the species level, 23 species (43%) were “not assessed,” and 25 species (47%) were classified as “least concern” (Figure 6), together constituting about 90% of all documented plants. Meanwhile, four species were classified as “data deficient”: *Curcuma longa* L., *Zingiber officinale* Roscoe, *Mangifera indica* L., and *Brassica oleracea* (L.). Species under this classification lack sufficient data to make accurate population status or risk assessments. One species, *P. indicus*, was listed as “endangered” by the IUCN. Locally known as *narra*, this tree is scattered across several unoccupied land areas near residential zones in the barangay.

The majority of the documented medicinal species are non-native to the Philippines (68%), with only 17 species (32%) classified as native (Figure 7). Many of the non-native species are cosmopolitan and are primarily used as food, especially for cooking and spices, while others serve as ornamental plants or, in some cases, as invasive weeds.

Classification of diseases

The 36 types of diseases mentioned by the informants were categorized into 13 different disease categories (Table 3), adapted from the International Classification of Diseases (ICD-11) by the World Health Organization (ICD-11 2024). The category with the highest number of taxa was “diseases involving the digestive system,” with 17 plant species mentioned. *Jatropha curcas* L. had the most number of use reports for diseases belonging to this category, with a total of seven. Along with “diseases and symptoms involving the skin”, this category also had the most number of diseases, tallying six different diseases. Stomachache was the most frequently mentioned disease involving the digestive system while bruising had the highest number of citations for diseases involving the skin.

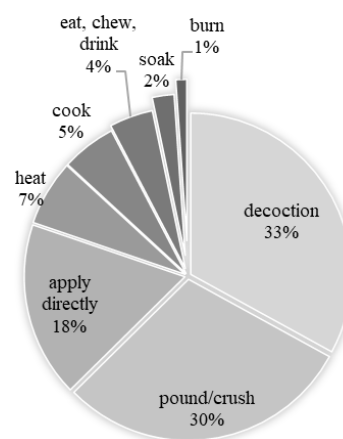


Figure 5. Medicinal plant method of preparation

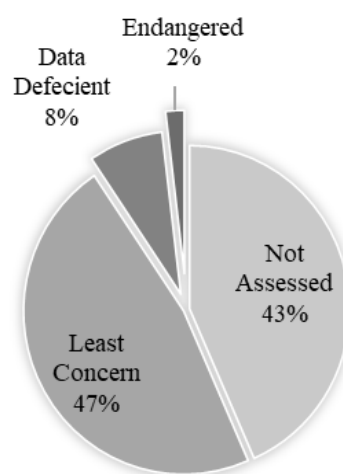


Figure 6. IUCN Red List Conservation Status

Table 2. Medicinal plants documented in Brgy. Tacas, Jaro, Iloilo City, Philippines

Family	Scientific name*	Local name	Disease	Plant part	Method of preparation	UR**	UV	RFC	Endemicity† IUCN‡
Acanthaceae	<i>Justicia gendarussa</i> Burm.fil. ³	Bunlaw	Headache	Leaf	Apply directly on the head; crush and apply the extract on the head	4	0.07	0.05	N, NA
Acanthaceae	<i>Pseuderanthemum carruthersii</i> (Seem.) Guillaumin ³	Pasaw	Rashes Headache	Leaf Leaf	Apply directly on the head Apply directly on the head; crush and apply the extract on the head	20	0.33	0.33	NN, NA
Amaryllidaceae	<i>Allium cepa</i> L. ²	Bombay	Fever Cough	Leaf Bulb	Apply directly on the head Soak in hot water then drink	1	0.02	0.02	NN, NA
Anacardiaceae	<i>Mangifera indica</i> L. ¹	Paho	Gastrointestinal cleansing, diabetes	Leaf	Drink the decoction	2	0.03	0.03	NN, DD
Annonaceae	<i>Annona muricata</i> L. ¹	Babana	Gastrointestinal cleansing, diabetes, prostate problem	Leaf	Drink the decoction	3	0.05	0.05	NN, LC
Apiaceae	<i>Angelica</i> sp. ²	Ashitaba	Blood clot	Roots	Drink the decoction	1	0.02	0.02	NN, NA
Apocynaceae	<i>Catharanthus roseus</i> (L.) G.Don ³	Rosas de baybayon	Urinary tract infection (uti)	Flower	Drink the decoction	1	0.02	0.02	NN, NA
Apocynaceae	<i>Plumeria rubra</i> L. ¹	Kalachuchi	Muscle swelling	Flower	Apply directly	1	0.02	0.02	NN, LC
Araceae	<i>Alocasia macrorrhizos</i> var. (L.) G.Don ²	Badiang	Toothache	Leaf	Apply on the cheek or jaw area	1	0.02	0.02	N, NA
Asparagaceae	<i>Cordyline fruticosa</i> (L.) A.Chev. ³	Baston ni San Jose	Headache	Leaf	Apply directly on the forehead; pound and apply the extract on the head	2	0.03	0.03	NN, LC
Asphodelaceae	<i>Aloe vera</i> (L.) Burm. f. ²	Alobera	Burns	Leaf	Crush and rub extract on the affected area	3	0.05	0.03	NN, NA
Asteraceae	<i>Blumea balsamifera</i> (L.) DC. ³	Alibhon	Headache	Leaf	Pound and apply extract on the head; apply with <i>J. Gendarussa</i> and <i>A. vulgaris</i> leaves and <i>C. Longa</i> rhizome	41	0.68	0.63	N, LC
Asteraceae	<i>Artemisia vulgaris</i> L. ²	Artamisa	Dizziness Cough Kidney stone Headache	Leaf Leaf Leaf Leaf	Pound and apply extract on the head Drink the decoction; pound and drink the extract Drink the decoction	32	0.53	0.42	NN, NA
Balsaminaceae	<i>Impatiens balsamina</i> L. ²	Kamantigi	Fever Cuts/wounds	Leaf Leaf	Pound and apply to the whole body or head Pound and apply the extract on the affected area	1	0.02	0.02	NN, NA
Basellaceae	<i>Basella alba</i> L. ²	Alugbati	Eczema	Leaf	Pound and apply the extract on the affected area	1	0.02	0.02	N, NA
Brassicaceae	<i>Brassica oleracea</i> L. ²	Repolyo	Reduce creatinine	Leaf	Cook then eat	1	0.02	0.02	NN, DD
Combretaceae	<i>Terminalia catappa</i> L. ¹	Talisay	Headache	Leaf	Apply directly on the forehead	1	0.02	0.02	N, LC
Costaceae	<i>Chamaecostus cuspidatus</i> (Nees & Mart.) C.D.Specht & D.W.Stev. ²	Insulin plant	Diabetes	Leaf	Chew the leaves	1	0.02	0.02	NN, NA

Cucurbitaceae	<i>Luffa aegyptiaca</i> Mill. ⁴	Patola	Hypertension	Fruit	Cook then eat	1	0.02	0.02	NN, NA
Cucurbitaceae	<i>Momordica charantia</i> L. ⁴	Margoso	Cough	Leaf	Pound and drink the extract; drink the decoction	3	0.05	0.05	N, NA
			Diabetes	Fruit	Fruit is eaten raw				
Euphorbiaceae	<i>Euphorbia hirta</i> L. ²	Tawa-tawa	Dengue, fever	Whole plant except roots	Drink the decoction	2	0.03	0.02	NN, NA
Euphorbiaceae	<i>Jatropha curcas</i> L. ¹	Kasla	Fracture	Leaf	Apply directly	31	0.52	0.50	NN, LC
			Stomachache, bloated stomach	Bark/ leaf	Heat and apply on the stomach				
			Muscle swelling, bruise	Leaf	Heat and apply on the affected area; apply directly				
			Headache	Leaf	Apply directly				
Fabaceae	<i>Gliricidia sepium</i> (Jacq.) Kunth ¹	Madre de kakaw	Skin lesion, rashes	Leaf	Pound and apply the extract on the affected area	3	0.05	0.05	NN, LC
Fabaceae	<i>Mimosa pudica</i> L. ²	Makahiya	Headache, eye irritation	Whole plant	Drink the decoction	2	0.03	0.03	NN, LC
Fabaceae	<i>Pithecellobium dulce</i> (Roxb.) Benth. ¹	Kamunsil	Diabetes	Fruit	Eat directly	2	0.03	0.03	NN, LC
Fabaceae	<i>Pterocarpus indicus</i> Willd. ¹	Narra	Constipation	Bark	Drink the decoction	1	0.02	0.02	N, EN
Fabaceae	<i>Tamarindus indica</i> L. ¹	Sambag	Cough	Leaf	Drink the decoction; crush and drink extract	4	0.07	0.07	NN, LC
Lamiaceae	<i>Coleus amboinicus</i> Lour. ²	Oregano	Cough	Leaf	Drink decoction; crush and drink the extract; soak in hot water then drink	33	0.55	0.55	NN, NA
			Headache	Leaf	Pound and apply extract on the head				
Lamiaceae	<i>Coleus scutellarioides</i> (L.) Benth. ²	Lampunaya	Cuts/wounds	Leaf	Pound and apply extract on the affected area	17	0.28	0.20	N, NA
			Bruise	Leaf	Pound and apply poultice; pound and apply the extract				
Lamiaceae	<i>Premna odorata</i> Blanco ¹	Agdaw	Cough	Leaf	Apply directly on the neck	1	0.02	0.02	N, LC
Lamiaceae	<i>Ocimum</i> sp. ²	Kaluoy	Dizziness	Leaf	Apply directly on the forehead; pound and apply the extract	2	0.03	0.03	
Lamiaceae	<i>Vitex elmeri</i> Moldenke ³	Lagundi	Cough	Leaf	Drink the decoction; soak in hot water then drink	11	0.18	0.17	N, LC
			Headache, asthma	Leaf	Drink the decoction				
			Arthritis	Leaf	Pound and apply the extract on the affected area				
Lauraceae	<i>Persea americana</i> Mill. ¹	Avocado	Gastrointestinal cleansing, cough	Leaf	Drink the decoction	2	0.03	0.03	NN, LC
Lythraceae	<i>Lagerstroemia speciosa</i> (L.) Pers. ¹	Banaba	UTI, kidney stone, diabetes	Leaf	Drink decoction	6	0.10	0.10	N, LC
Malvaceae	<i>Abelmoschus esculentus</i> (L.) Moench ²	Okra	Gastrointestinal cleansing	Fruit	Drink the decoction	3	0.05	0.03	NN, NA
			Hypertension, diabetes	Fruit	Cook then eat				
Malvaceae	<i>Corchorus olitorius</i> L. ²	Tugabang	Gastrointestinal cleansing	Leaf	Cook then eat	1	0.02	0.02	N, NA
Malvaceae	<i>Theobroma cacao</i> L. ¹	Kakaw	Diarrhea	Leaf	Drink the decoction	1	0.02	0.02	NN, NA
Menispermaceae	<i>Tinospora crispa</i> (L.) Miers ex Hook.fil. & Thomson ⁴	Manunggal	<i>Inaswang</i> *	Stem	Apply on the stomach together with <i>C. longa</i>	1	0.02	0.02	N, NA
Moringaceae	<i>Moringa oleifera</i> Lam. ¹	Malunggay	Cuts/wounds	Leaf	Pound and apply the extract	39	0.65	0.65	NN, LC
			Cough	Leaf	Crush and drink extract				
			Hypertension	Leaf	Cook then eat				
			Diabetes	Leaf	Drink the decoction				
Muntingiaceae	<i>Muntingia calabura</i> L. ¹	Sarisa	Diarrhea	Leaf	Drink the decoction; crush and drink the extract	4	0.07	0.05	NN, LC
			Diabetes	Leaf	Drink the decoction				
			Stomachache	Leaf	Crush and drink the extract				

Myrtaceae	<i>Psidium guajava</i> L. ¹	Bayabas	Rashes, skin lesion Cuts/wounds	Leaf Leaf	Bath the decoction Apply the decoction on the affected area; pound and apply the extract	9	0.15	0.13	NN, LC
			Diarrhea, diabetes Skin cleansing	Leaf Leaf	Drink the decoction Pound and apply the extract				
Myrtaceae	<i>Syzygium cumini</i> (L.) Skeels ¹	Lomboy	Diarrhea	Leaf	Drink the decoction	1	0.02	0.02	NN, LC
Phyllanthaceae	<i>Antidesma bunius</i> (L.) Spreng ¹	Bugnay	Rashes, measles	Leaf	Bath the decoction	5	0.08	0.08	N, LC
Piperaceae	<i>Peperomia pellucida</i> (L.) Kunth ²	Sinaw-sinaw	UTI, high uric acid	Whole plant	Drink the decoction	5	0.08	0.07	NN, NA
Piperaceae	<i>Piper betle</i> L. ⁴	Buyo	Bloated stomach	Leaf	Heat and apply on the stomach, chest, and back area	1	0.02	0.02	N, LC
Poaceae	<i>Cymbopogon citratus</i> (DC.) Stapf ²	Tanglad	Hypertension	Leaf, whole plant	Drink decoction	5	0.08	0.08	NN, NA
			Diabetes	Leaf	Drink decoction				
Poaceae	<i>Zea mays</i> L. ²	Mais	UTI, fever	Corn silk	Drink the decoction	2	0.03	0.03	NN, LC
Rubiaceae	<i>Nauclea orientalis</i> (L.) L. ¹	Bangkal	Dizziness, headache	Leaf	Apply directly on the forehead	5	0.08	0.07	N, LC
Rutaceae	<i>Citrus × microcarpa</i> Bunge ¹	Suha	Cough	Fruit	Consume the juice extract	1	0.02	0.02	NN, NA
Rutaceae	<i>Citrus maxima</i> (Burm.) Merr. ¹	Kabugaw	Rashes Muscle pain	Leaf Leaf	Burn as incense; bath the decoction Pound and apply the extract	3	0.05	0.05	NN, LC
Sapotaceae	<i>Chrysophyllum cainito</i> L. ¹	Star apple	Diarrhea	Leaf	Drink the decoction	5	0.08	0.07	NN, LC
Solanaceae	<i>Capsicum frutescens</i> L. ²	Katumbal	Headache	Leaf	Pound and apply on the head	1	0.02	0.02	NN, LC
Solanaceae	<i>Solanum melongena</i> L. ³	Talong	Bloated stomach	Leaf	Expose to fire then apply poultice on the stomach	1	0.02	0.02	N, NA
Zingiberaceae	<i>Curcuma longa</i> L. ²	Kalawag	Headache	Rhizome	Pound and apply the extract; pound and apply with <i>J. gendarussa</i> , <i>B. balsamifera</i> , and <i>A. vulgaris</i> leaves	9	0.15	0.15	NN, DD
			Stomachache	Rhizome	Heat and apply on the stomach				
			<i>Inaswang</i> *	Rhizome	Apply on the stomach together with <i>T. crispa</i>				
Zingiberaceae	<i>Zingiber officinale</i> Roscoe ²	Luy-a	Stomachache, bloated stomach Cough, tonsilitis	Rhizome Rhizome	Expose to fire then apply poultice on the stomach; drink decoction Drink decoction	16	0.27	0.27	NN, DD

Note: ¹Plant habitus: 1. Tree; 2. Herb; 3. Shrub; 4. Climber. Note: ^{**}UR: Use Report; [†]DD: Data Deficient; LC: Least Concern; EN: Endangered; NA: Not Assessed; [‡]N: Native; NN: Non-native.

**Inaswang* is an illness believed to be caused by the *aswang*, a supernatural creature in Philippine folklore

Table 3. Disease category, ICF, and FL of the most cited species

Disease category	Diseases (number of citations)	Number of plant taxa used for treatment	ICF	Most cited plant species	Use of most cited plant species	Fidelity Level (%)
Infectious and parasitic diseases	Measles (1), Dengue (1)	2	0	<i>Euphorbia hirta</i> L.	Dengue	50
Endocrine, metabolic, and nutritional diseases	Diabetes (13), High uric acid (1)	12	0.15	<i>Pithecellobium dulce</i> (Roxb.) Benth.	Diabetes	100
Diseases of nervous system	Headache (91), Dizziness (7)	14	0.87	<i>Ocimum</i> sp.	Dizziness	100
Eye diseases and other vision-related complications	Eye irritation (1)	1	0	<i>Mimosa pudica</i> L.	Eye irritation	50
Diseases of the circulatory system and blood-forming organs	Hypertension (7), Blood clot (1)	5	0.43	<i>Cymbopogon citratus</i> (DC.) Stapf	Hypertension	60
Diseases and symptoms involving the respiratory system	Cough (67), Tonsilitis (2), Asthma (1)	12	0.84	<i>Tamarindus indica</i> L.	Cough	100
Diseases and symptoms involving the digestive system	Bloated Stomach (10), Stomachache (11), Diarrhea (10), Gastrointestinal cleansing (5), Toothache (1), Constipation (1)	17	0.57	<i>Chrysophyllum cainito</i> L.	Diarrhea	80
Diseases and symptoms involving the skin	Skin lesion (3), Eczema (1), Rashes (10), Bruise (13), Dandruff (1), Skin cleansing (1)	9	0.71	<i>Antidesma bunius</i> (L.) Spreng	Rashes	80
Diseases and symptoms involving connective tissues and musculoskeletal system	Muscle Swelling (7), Arthritis (2)	5	0.5	<i>Coleus scutellarioides</i> (L.) Benth.	Muscle swelling	24
Diseases of the genitourinary system	UTI (8), Reduce creatinine (1), Kidney stone (3), Prostate problem (1)	8	0.42	<i>Peperomia pellucida</i> (L.) Kunth	UTI	60
General symptoms of diseases	Fever (19), Muscle pain (1)	6	0.74	<i>Euphorbia hirta</i> L. and <i>Zea mays</i> L.	Fever	50
Injuries from other external causes	Fracture (17), Cuts/wounds (39), Burns (1)	6	0.91	<i>Moringa oleifera</i> Lam.	Cuts/wounds	87
Other purpose/use	<i>Inaswang</i> (3)	3	0	<i>Curcuma longa</i> L.	<i>Inaswang</i>	11

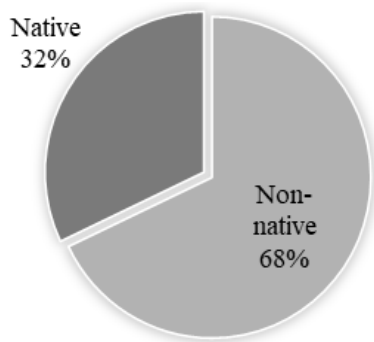


Figure 7. Distribution of the medicinal plants

On the other hand, the categories "eye diseases and other vision-related complications" and "other factors that affect health status" each recorded a single disease under them, which were eye irritation and "inaswang" respectively. The participants of the study cited *M. pudica* as the cure for the former while *J. curcas* and *Tinospora crispa* (L.) Miers ex Hook.fil. & Thomson serves as the preferred treatment for the latter. Meanwhile, the category "diseases and symptoms involving the nervous system" had the highest number of total citations by the participants. The two diseases under this category, headache and dizziness, accumulated 98 citations. The most frequently used plant species for the treatment of these diseases is *B. balsamifera*. Preparation of *B. balsamifera* typically involves the pounding of its leaves and applying the resulting extract to the head. A summary of the diseases under each category is shown in Table 3.

Quantitative analyses

Use Value (UV) and Relative Frequency of Citation (RFC)

As presented in Table 2, the plant species with the highest UV values were *B. balsamifera* (0.68), *M. oleifera* (0.65), *C. amboinicus* (0.55), and *A. vulgaris* (0.53) (Table 2). Locally known as "alibhon," *B. balsamifera* had 41 total use reports across five different types of disease within four disease categories. Headache recorded the highest number of citations, with the most common preparation method involving pounding the leaves and applying the extract to the head. Additionally, drinking the decoction made from its leaves was frequently reported as a treatment for cough. Other ailments treated with this plant include dizziness, fever, and kidney stones. *Moringa oleifera*, commonly referred to as "malunggay," had 39 use reports used to treat four types of disease across four different disease categories. It is used to treat cuts/wounds, cough, hypertension, and diabetes. Preparation and administration methods included pounding and applying the extract, crushing and drinking the extract, cooking and consuming the leaves, and drinking the decoction. Respondents also indicated a preference for younger leaves over older ones for *M. oleifera*. *Coleus amboinicus*, locally known as "oregano," had 33 use reports used to address two diseases within two disease categories. It is primarily used to treat cough (31 citations) and headache (2 citations). A common preparation method involved boiling the leaves in water

and drinking the resulting decoction. *Artemisia vulgaris*, referred to locally as "artamisa," had 32 use reports for the remedy of three diseases across two categories (diseases of the nervous system and general symptoms). The treated ailments included headache, fever, and dizziness. Similar to *B. balsamifera*, the most common preparation method for *A. vulgaris* is pounding the leaves and applying the extract to the affected area. The top three medicinal plant species with the highest RFC values were *M. oleifera* (0.65), *B. balsamifera* (0.63), and *C. amboinicus* (0.55) (Table 2). In contrast, 21 plant species recorded the lowest RFC value (0.02) among the 55 medicinal plants documented in this study, with only one informant reporting their use, which also corresponds with the lowest UV. A detailed summary of each plant's UV and RFC values is provided in Table 2.

Informant Consensus Factor (ICF)

The ICF values were calculated to determine the degree of agreement and similarity in the plant knowledge of the respondents participated in this study. The 55 medicinal plant species documented in this study used to address 36 different diseases or purpose in 13 different disease categories. The category "injuries from other external causes" recorded the highest ICF value (0.91). Fifty-seven (57) use reports recorded under this category, and the diseases involved were fracture (17 citations), cuts/wounds (39 citations), and burns (1 citation). The six (6) plant species used to treat these diseases were *J. curcas*, *M. oleifera*, *Psidium guajava* L., *C. scutellarioides*, *Aloe vera* (L.) Burm. f., and *Impatiens balsamina* (L.). The use of *M. oleifera* leaf extract as a remedy for cuts/wounds had the highest number of use reports within the category. Additionally, most of the study's participants were in consensus about the use of *J. curcas* as a treatment for fractured bones, with the preferred method being a direct application to the affected area, locally known as "hampol". All 17 citations regarding this disease cited the aforementioned method of treatment. The second-highest ICF value (0.87) was recorded in the disease category "diseases of the nervous system". In this category, the two types of diseases in this category, headache and dizziness, combined for a total of 98 citations. The consensus of most of the participants is to use the leaves of either *B. balsamifera*, *Pseuderanthemum carruthersii* (Seem.) Guillaumin, or *A. vulgaris* as treatment for the two purposes. However, the method of preparation can vary from direct application to pounding and applying the extract to the head, while some participants also mentioned the use of a combination of these leaves. The categories that recorded the lowest ICF values (0.00) were "infectious and parasitic diseases", "eye diseases and other vision-related complications", and "other purpose/use". A summary of each disease category's ICF value is shown in 3.

Fidelity Level (FL)

The parameter is an indicator of the relative importance of a plant species to a given disease category. To avoid statistical discrepancies and outliers, plant species with single citations were not included in the rankings.

Pithecellobium dulce, *Ocimum* sp., and *T. indica* were the plant species that recorded the highest fidelity level values, each recording 100%. These three plant species were utilized solely to address one disease: *P. dulce* for diabetes; *Ocimum tenuiflorum* L. for dizziness; and *T. indica* for cough. They belong to the disease categories "endocrine, metabolic, and nutritional diseases", "diseases of the nervous system", and "diseases and symptoms involving the respiratory system" respectively. Preparation of *P. dulce* includes drinking the decoction and crushing leaves and drinking the resulting extract. *Ocimum tenuiflorum* is prepared by directly placing the leaves on the forehead or pounding and applying the extract on the head. Drinking the decoction or crushing the leaves and drinking the acquired extract are the methods of preparation for *T. indica*. Meanwhile, the lowest fidelity level value (11%) was recorded by *C. longa* for the purpose of "inaswang" belonging in the disease category "other factors that affect health status". A summary of the fidelity level values of the most frequently mentioned medicinal plant species in each category is shown in Table 3.

Discussion

Of the 53 medicinal plants identified to the species level out of the 55 plants documented in this study, 48 (90%) were classified by the IUCN Red List as either "Not Assessed" or "Least Concern." Species in these categories are generally not the focus of intensive conservation or monitoring efforts, as their populations are typically considered stable. However, some species within these categories are experiencing gradual declines, highlighting the need for monitoring to develop effective conservation strategies and prevent them from becoming threatened in the future (IUCN 2024). This finding aligns with the commonly accepted notion that people favor certain plants. Moreover, the results of this study are consistent with other ethnobotanical studies conducted in rural communities in the Province of Iloilo (Cordero et al. 2022a, 2023; Tiquio et al. 2024), which found that most of the plants used are cosmopolitan and widely utilized not only for medicinal purposes but also as food and ornamental uses. Meanwhile, a single species meets the criteria for the "endangered" category. *Pterocarpus indicus*, locally known as the *narra*, faces a very high risk of extinction in the wild. However, in the national list of threatened Philippine plants and their categories, it is classified as vulnerable (DAO 2017). It is recognized as the national tree of the Philippines mainly due to its rigid trunk and branches, symbolizing resilience amidst different challenges. This plant is also known to have several bioactive components that could induce antioxidants, antibacterial, and antifungal properties useful in the biomedical field (Senthilkumar et al. 2020). However, *P. indicus* has a relatively slow seedling growth rate and meristem regeneration capabilities (Gazal et al. 2004). While its seedlings can only withstand moderate saline conditions (Manipol et al. 2020), they thrive in dry environments and exhibit greater resistance to ozone damage when cultivated in arid soil rather than in well-watered soil (Baek et al. 2018). These factors make the species vulnerable to overexploitation by humans, further

endangering its overall population. A participant also alluded to the presence of a decades-old *narra* tree in Brgy. Tacas that serves as the main source of raw materials for traditional medicine. Most of the documented medicinal plants used in Brgy. Tacas are non-native to the Philippines, being either cultivated, introduced, or naturalized. This result aligns with findings from other ethnobotanical studies conducted in rural communities (Cordero et al. 2023; Tiquio et al. 2024), indigenous communities (Cordero et al. 2022a) in Iloilo, as well as in another province (Belgica et al. 2024) in the country. The preference for non-native medicinal species can be attributed to their wide distribution, ease of cultivation, and diverse applications. This may also suggest the scarcity of native or endemic plants in the area, leading the informants to rely on non-endemic species as substitutes.

Medicinal plant families with the highest number of plant species mentioned by the informants were Lamiaceae and Fabaceae. Most of the cited plants from these families were grown by local residents within their respective land spaces. The family Lamiaceae is the sixth-largest family of angiosperms, comprises over 236 genera and 7,000 species found worldwide (Li et al. 2016). Species from this family are known to possess various biologically active compounds that could act as anti-inflammatory, antifungal, antimicrobial, antioxidant, and antiseptic agents (Venkateshappa and Sreenath 2013; da Silva et al. 2021). These attributes make medicinal plants from this family effective in treating diseases such as urinary diseases, respiratory diseases, diarrhea, and wounds (Venkateshappa and Sreenath 2013). The responses of the participants align with the Lamiaceae attributes and the diseases that they could treat. *Coleus amboinicus*, *P. odorata*, *C. scutellarioides*, and *V. elmeri* were mentioned as cough remedies while *C. scutellarioides* was mentioned as treatment for cuts and wounds. The preference for the family Lamiaceae aligns with studies conducted in other rural and urban communities in the Philippines (Belgica et al. 2021; Caunca and Balinado 2021; Docot et al. 2022). Meanwhile, the family Fabaceae was also noted as the most frequently cited family in past ethnobotanical studies conducted in the Philippines (Tantiado 2012; Tantengco et al. 2018; Cordero et al. 2022a, b; Ombat et al. 2023). This family is economically and ecologically significant, comprising 770 genera and over 19,500 species with a cosmopolitan distribution. It is the third-largest angiosperm family in terms of species diversity, following Asteraceae and Orchidaceae (Azani et al. 2017). Similar to Lamiaceae, plants from this family contain compounds with antidiabetic, antimicrobial, antifungal, anti-inflammatory, and antibacterial properties (Wanda et al. 2015; Ahmad et al. 2016; Macêdo et al. 2018). Several plant citations from Fabaceae align with these properties and their intended uses. For instance, *G. sepium* is used to treat skin lesions and rashes, while is *P. dulce*. employed for managing diabetes. Beyond their bioactive compounds, the high tolerance of Fabaceae to sudden and extreme environmental stresses and changes contributes to their prominence as one of the most preferred plant families (Parvin et al. 2020). This adaptability ensures consistent

growth even amid environmental disruptions, with little to no human intervention.

In terms of plant parts, leaves were the most frequently mentioned for the treatment of different diseases. This observation is similar to the ones derived from other ethnobotanical studies conducted in the Philippines (Olowa and Demayo 2015; Odchimar et al. 2017; Baddu and Ouano 2018; Tantengco et al. 2018; Nuñez et al. 2021; Cordero et al. 2022a, b; Ombat et al. 2023; Adjarani et al. 2024; Andalan et al. 2024; Paraguison et al. 2024). The popularity of leaves as the preferred plant part can be attributed to their high content of bioactive phytochemicals or phytonutrients. Common examples of these phytochemicals include flavonoids, carotenoids, polyphenols, and saponins (Sarker et al. 2020). These compounds have demonstrated the ability to induce biological activities that may suppress the onset or progression of diseases (Tenuta et al. 2018). When combined with a healthy diet and lifestyle, phytochemicals from medicinal plants can also help prevent the development of chronic illnesses such as diabetes and hypertension (Xiao and Bai 2019). Moreover, leaves are abundant and readily available plant parts, reducing accessibility issues. Since many medicinal plants can regenerate leaves in a relatively short time, harvesting leaves typically does not pose a significant threat to the plant's survival.

The most common methods of preparing and administering medicinal plants are by drinking or bathing with the decoction, as well as pounding and applying the extracted substance to the affected area. Decoction is also the most frequently reported preparation method in other ethnobotanical studies conducted in the Philippines (Olowa and Demayo 2015; Odchimar et al. 2017; Baddu and Ouano 2018; Tantengco et al. 2018; Nuñez et al. 2021; Cordero et al. 2022a, 2023; Ombat et al. 2023; Adjarani et al. 2024; Andalan et al. 2024; Paraguison et al. 2024). This method effectively extracts beneficial compounds from various plant parts and is favored for its simplicity and ease of preparation. Participants in the study commonly prepared decoctions for direct consumption or incorporation into bathing. The second most common method involves pounding plant parts and applying the resulting extract directly to the affected area. This practice has also been cited in other ethnobotanical studies across the country (Odchimar et al. 2017; Tantengco et al. 2018; Cordero et al. 2022a, 2023). Plant parts with fleshy characteristics are often selected for pounding, as this process facilitates faster application and absorption of the extract while allowing precise targeting of the affected area.

The 36 types of diseases cited by the informants of the study were classified according to the 11th Revision of the International Classification of Diseases by the WHO. Among all the diseases, headache garnered the highest number of citations. This condition was also mentioned in past ethnobotanical studies conducted in the Philippines (Odchimar et al. 2017; Baddu and Ouano 2018; Tantengco et al. 2018; Ordas et al. 2020; Nuñez et al. 2021; Cordero et al. 2022a, 2023). *Blumea balsamifera* is one of the

primary medicinal plants used to treat headaches due to its abundance of medically beneficial volatile oils and phytochemical compounds (Silalahi 2021). Meanwhile, the disease that had the second highest number of citations was cough, and the most frequently used medicinal plant treatments were *C. amboinicus* and *Z. officinale*. The presence of flavonoids such as apigenin, quercetin, luteolin, and genkwanin makes the *C. amboinicus* leaves formidable raw materials for cough treatment. On the other hand, *Z. officinale* contains polysaccharides that may help manage bronchial asthma and coughing (Bera et al. 2016). It also acts as an anticough agent, as its extract can suppress the effects of a tracheal stimulus that triggers the expiratory coughing reflex (Raja et al. 2012). Additionally, its physicochemical and phytochemical properties demonstrate antibacterial potential (Edo et al. 2024) and also contains potential natural source of antioxidants (Ahmed et al. 2022).

Among the disease categories, “diseases involving the digestive system” and “diseases and symptoms involving the skin” had the highest number of conditions mentioned. The high prevalence of diseases in the former category may be attributed to poor hygiene and limited access to clean water, common issues in many developing countries, including the Philippines (Polman et al. 2015). Similarly, skin illnesses and disorders are prevalent in tropical countries, where the climate facilitates the spread of disease-causing pathogens (Mitjà et al. 2017).

The plant species with the highest UV values recorded were *B. balsamifera* (0.68) and *M. oleifera* (0.65), making them the most valued and preferred medicinal plants in the community. *B. balsamifera* is used as a remedy for headaches, dizziness, coughs, and kidney stones, while *M. oleifera* is employed to treat cuts, wounds, coughs, hypertension, and diabetes. The former contains over 100 volatile and non-volatile constituents with diverse bioactivities (Wang et al. 2023), while the latter boasts a variety of essential phytochemicals capable of treating more than 300 diseases (Gopalakrishnan et al. 2016).

The three plant species with the highest RFC values were *M. oleifera* (0.65), *B. balsamifera* (0.63), and *C. amboinicus* (0.55), indicating the species cited by the highest number of participants regardless of purpose. These three species are commonly cultivated in the area or allowed to grow naturally in unoccupied spaces.

The similarities and extent of agreement in the study participants' plant knowledge were assessed by calculating the ICF values. The category “injuries from other external causes” recorded the highest ICF value (0.91), indicating homogeneity and consistency in the informants' responses. In other words, participants agreed on which plants to use for treating specific ailments in this category. *Moringa oleifera*, commonly known as the “tree of life” or “miracle tree,” was the most preferred plant for treating cuts and wounds. Renowned for its extensive medicinal properties, recent pharmacological research has shown that various extracts of *M. oleifera* possess a wide range of activities, including antimicrobial, antifungal, anti-inflammatory, antioxidant, anticancer, fertility-enhancing, and wound-healing effects (Pareek et al. 2023). Another notable usage

in this category is *J. curcas*, which is applied to treat bone fractures and muscle swelling. Biologically active compounds isolated from *J. curcas* have been proven effective in alleviating musculoskeletal injuries and associated symptoms (Prasad et al. 2012).

Medicinal plant species with the highest FL values (100%) were *P. dulce*, *Ocimum* sp., and *T. indica*, used to treat diabetes, dizziness, and cough, respectively. *Pithecellobium dulce* contains 38 biologically active compounds, including kaempferol, phenols, saponins, and quercetin, which may have significant medical applications (Murugesan et al. 2019). The therapeutic properties of *Ocimum* sp. are attributed to active constituents like eugenol found in its leaf extracts (Pattanayak et al. 2022). Similarly, *T. indica* contains various bioactive compounds with potent anti-inflammatory and analgesic properties (Komakech et al. 2019).

This study documented 55 medicinal plant species from local informants in Brgy. Tacas, Jaro, Iloilo City. Compared to other ethnobotanical surveys conducted in urban communities across the Philippines, the number of species recorded here was relatively lower, possibly reflecting the demographic profile of the informants. In southern Philippines, for example, approximately 80 species were cited by traditional healers in Pagadian City, Zamboanga del Sur (Fabie-Agapin 2020), while 66 species were documented among the Talaandig indigenous people in Valencia City, Bukidnon (Odchimar et al. 2017). Additionally, around 122 medicinal plant species were recorded among the Agusan Manobo across selected municipalities and cities of Agusan del Sur (Dapar et al. 2020). In northern Philippines, 106 species were reported by local herbalists across 15 randomly selected rural and urban communities in the Province of Cavite (Caunca and Balinado 2021). Notably, the Mindanao studies primarily involved indigenous peoples and traditional healers, while the Cavite study included herbalists and encompassed both rural and urban areas.

Similarly, this study recorded fewer species compared to those conducted in adjacent provinces, where informants were predominantly indigenous peoples and research sites were located in mountainous rural areas. Even within Iloilo Province, earlier studies conducted in rural settings reported higher numbers of medicinal plants. These findings suggest a potential erosion of traditional knowledge in urban communities, likely driven by modernization and the reduced availability of space for cultivating medicinal species.

When compared to urban ethnobotanical studies elsewhere, the number of species recorded here was also lower than that documented in Saudi Arabia, where approximately 110 medicinal plants used by women were reported (Alqethami et al. 2017), as well as in urban communities of Morro da Cruz, Porto Alegre, and Moju, Pará, Brazil (Casagrande et al. 2023; da Conceição Barbosa et al. 2025). However, it recorded a higher number of medicinal plants than studies in Aliança, Tocantins, Brazil (25 species), and Heredia, Costa Rica (Borges et al. 2020; González-Ball et al. 2022). This variation can be attributed

to differences in the demographic profiles of respondents, the number of sampling sites, and the duration of the study.

In conclusion, this study highlights the diverse use of medicinal plants in Brgy. Tacas, with most species classified by the IUCN Red List as "Least Concern" or "Not Assessed," underscoring the need for continuous monitoring to prevent potential threats. While non-native plants dominate the selection, local communities tend to favor species with proven bioactive compounds, particularly those from the Lamiaceae and Fabaceae families. Although the medicinal plant diversity recorded in this study is lower than that documented in rural communities within Iloilo Province and neighboring areas, it provides a valuable foundation for future research in other urban regions of Iloilo City. The reduced diversity of medicinal plants in the area may be attributed to the conversion of previously unused land into commercial and residential developments, which could also impact the availability of plants for medicinal use. The findings suggest that this decline may reflect the impact of modernization and urbanization on traditional knowledge, highlighting the need for conservation efforts in urban communities. Overall, this study underscores the interconnectedness of plant conservation, traditional medicine, and the ecological significance of locally grown species.

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