



Herbal medicines for women and children's health in Tipang Village, District Humbang Hasundutan, North Sumatera

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ABSTRACT

Objective: This study aimed to describe the use of medicinal plants for the health of mothers and children and to describe the local knowledge in traditional medicine to cure diseases that are often experienced by mothers and children in Tipang village, Humbang Hasundutan Regency, North Sumatera Province.

Method: This study used a qualitative method with an interactive model. The scientific approach used in this research is local wisdom.

Result: The local knowledge of the Tipang community is based on local wisdom on the use of herbs in traditional medicine. Besides the local knowledge about the types of medicinal plants, they also know how to apply it to therapy, especially massage therapy. Specifically, they use this traditional medicine for the health of mothers and children, including the use of *bangun-bangun* leaves to increase milk production, *pultak-pultak* (*Physalis angulata*), *Bulung ni untejau* (guava leaves), *hunik* (*Curcuma domestica*), *botik* (*Carica papaya*), *harambir* (*Cocos nucifera*) used to treat colic, ginger are used to reduce fever in children, *paet-paet* leaves are used to heal wounds, and *halas* (*Alpinia galanga*), and *Napuran* (Betel leaf) are used to treat the itching.

Conclusion: Traditional medicine is part of the cultural system of the people of Tipang Village which has enormous potential benefits in building public health, particularly maternal and child health.

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Introduction

Medicinal plants are all plants, whether they have been cultivated or not, which can be turned into medicinal plants, from what is visible to what is only visible under a microscope. Traditional medicine is part of the cultural system of society which has enormous potential benefits in the development of public health.¹ The use of traditional medicine for self-care tends to increase. Internationally, traditional medicine using herbal medicine has been increasingly advanced. The first step that is very helpful in getting to know medicinal plants is from the knowledge of traditional people from generation to generation. Traditional ethnic groups in Indonesia have clear cultural characteristics and identities, so it is there may be differences in people's perceptions and conceptions of vegetable resources in their environment, including the use of plants as traditional medicines.²

Traditional medicine is a health effort in a way that is different from medical science, rooted in traditions originating from the tribe itself or outside the tribe. Cultural traditions including local medicine that are owned by a tribe or region tend to be a

tradition passed down from generation to generation among the community.³

Traditional medicine is one of the alternative treatments that are trending in society. Usually done by using herbal plant ingredients, which are by following per under the dosage and dose of the type of disease suffered, so that they do not cause side effects. Traditional medicine is known by the community not only domestically but also abroad. According to research from the United States National Institutes of Health, one-third of Americans take alternative medicine besides seeing a doctor. Meanwhile, the US National Center for Health Statistics (NCHS) states that 18% of Americans consume herbal medicines. One area that was formerly known for its traditional medicine and utilizing herbal plants in Indonesia, including the Toba Batak ethnic community. Before the entry of European culture (Christianity) in the Toba Batak area. Treatment is carried out using traditional medicine.⁴

In the culture of the Batak community, traditional medicine which is often used in everyday life has become a community belief (local wisdom) that can cure diseases. Batak society is inseparable from traditional medicine which has been ingrained in their lives as a result of community culture. Even though the world of medicine is growing, it does not mean that traditional medicine by utilizing herbs as ingredients are receding. The Batak people have been able to identify plant species that are known and used for medicinal herbs. Parts of medicinal plants that can be used and utilized as traditional medicine, such as roots, stems, leaves, flowers, fruit, and others.⁵

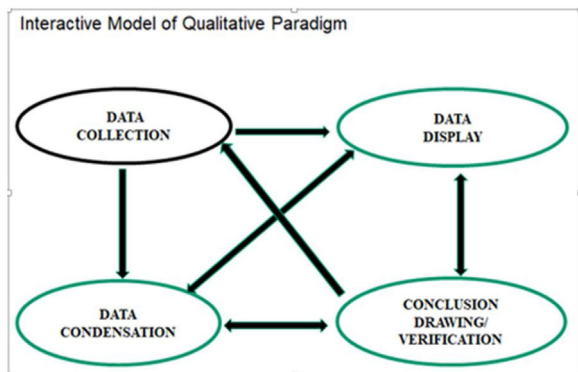
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Table 1
Medicinal plants to treat indigestion.

Scientific name	Local name	Used part	Efficacy
<i>Acalypha australis</i>	Anting anting	Leaf	Constipation
<i>Amarantus tricolor</i>	Bayam	Leaf	Smooth out of digestion
<i>Basella rubra</i>	Tinta-tinta	Root	Diarrhea
<i>Carica papaya</i>	Botik	Fruit	Smooth out of digestion
<i>Cucurbita</i>	Jelok	Fruit	Ulcer
<i>Curcuma domestica</i>	Hunik	Root	Stomach ache
<i>Cocos nucifera</i>	Harambir	Seed	Stomach ache
<i>Durio zibethinus</i>	Tarutung	Seed	Stomach ache
<i>Lansium domesticum</i>	duku	Bark	Stomach ache
<i>Manihot esculenta</i>	Gadong	Leaf, tuber	Stomach ache
<i>Melasoma candidum</i>	Sadduduk	Root	Ucler

**Fig. 1.** Interactive model of qualitative paradigm.

Some of the Batak people who still use plants for traditional medicine are those who live in Tipang Village, North Sumatra. However, the knowledge about medicinal plants and how to use them by the Batak tribe in Tipang Village has not been well documented. Therefore, as a first step to support the development of traditional medicines in Tipang Village, it is necessary to research the use of medicinal plants by the Batak community in Tipang Village.

Method

This research applied qualitative paradigm underlying the data collection coming from interview manuscripts, field notes, personal documents, memo notes, and other official documents. The scientific approach used in this research is the cultural approach. The research method used is qualitative is an interactive model. Interactive model of the qualitative standard used four interactive steps, namely data collection, data condensation, data display, and conclusion drawing/verification as follows (Table 1).⁵ The anthropological approach was applied in this study with the analytic parameters: interconnection, valuability, and sustainability. It was used in data analysis when applying three interactive analysis in data condensation, data display, and conclusion drawing or verification (Fig. 1).

As a qualitative research, the informants were collected by purposive sampling. The researcher conducted the study in the natural setting with emic and inductive perspective. This research was conducted at Tipang Village, Baktiraja District, Humbang Hasundutan Regency, North Sumatera Province for six months in February–August 2020.

Table 2
Medicinal plants to treat fever.

Scientific name	Local name	Used part	Efficacy
<i>Acorus calamus</i>	Salim batuk	Tuber	Fever
<i>Averrhoa carambola</i>	Belimbing	Fruit	Fever
<i>Carica papaya</i>	Botik	Fruit, leaf	Fever
<i>Centela asiatica</i>	Ampapaga	Leaf	Fever
<i>Coix lachryma-jobi</i>	Singkoru	Seed	Fever
<i>Curcuma domestica</i>	Hunik	Tuber	Fever
<i>Cocos nucifera</i>	Harambir	Fruit	Fever
<i>Cucumis sativus</i>	Accimun	Fruit	Fever
<i>Cymbopogon nardus</i>	Sangge-sangge	Leaf	Fever

Table 3
Medicinal plants to treat colds and coughs.

Scientific name	Local name	Used part	Efficacy
<i>Acorus calamus</i>	Salim batuk	Root	Cough
<i>Alpinia galanga</i>	Halas	Leaf	Cough
<i>Centela asiatica</i>	Ampapaga	Leaf	Cough
<i>Cinnamomun</i>	Kulit manis	Bark	Cough
<i>Citrus aurantifolia moschata</i>	Jeruk nipis	Fruit	Cough
<i>Citrus hystrix</i>	Unte pangir	Fruit	Cough
<i>Piper betle</i>	Napuran	Leaf	Cough
<i>Phyllanthus urinaria</i>	Sidukung	Leaf	Cough
<i>Blumea balsamifera</i>	galunggung	Leaf	Cough

Result

Use of medicinal plants for mother and child

The results of this study are presented in several tables as follows.

Discussion

The Toba Batak community knows medicinal plants to treat various diseases. Traditional medicine is used for mothers and children (Table 4) by utilizing plants around the home environment and those in the yard. The use of these plants is accompanied by local wisdom to formulate or process these plants into medicines that can heal or reduce pain.^{3,6} Some of the diseases that are often experienced by children below include: Diseases related to digestion (Table 1), fever (Table 2), wounds, respiratory tract such as coughs, and flu (Table 3). Diarrhea disease is a digestive disease that often affects children in Tipang Village. One type of medicinal plant used to treat gastrointestinal diseases is *paet* flower (*Eupatorium perforiatum*) and guava (*Psidium guajava*) which are used to treat ulcers and diarrhea. The method of processing and using *paet* flowers to treat boils is that the leaves of the *paet* flowers are boiled until they boil after drinking, while in guava, young leaves or shoots are eaten without being processed.^{7,8}

One of the medicinal plants used to treat fever is *Sibagure* (*Sidarhombifolia*) *Sibagure* (*Sidarhombifolia*) which is a medicinal plant used by respondents in Tipang Village to treat fever and fever, namely the roots, which are processed and used, then boiled the roots. Drunk.⁹

One of the medicinal plants used to treat wounds is Bandotan (*Ageratum conyzoides*). The medicinal plant Bandotan (*Ageratum conyzoides*) grows wild in Tipang Village and often uses this plant for external wounds. The method of processing and use is that the leaves are squeezed after that the leaves are attached to the injured part.^{10,11}

One of the medicinal plants used to treat the respiratory tract is Salim cough (*Acorus calamus*). Salim cough medicinal plant (*Acorus calamus*) grows wild in Tipang. How to use the rhizome in the sun and then eat it immediately. One of the medicinal plants used for the care of pregnancy and childbirth is shapes (*Plectranthus*

Table 4
Medicinal plant species used for the treatment of pregnancy and childbirth.

Scientific name	Local name	Used part	Efficacy
<i>Carica papaya</i>	Botik	Fruit, leaf	Breastfeeding smoothly, postpartum
<i>Kaemferia galanga</i>	Hasior	Root	Breastfeeding smoothly, postpartum
<i>Plectranthus amboinicus</i>	Bangun-bangun	Leaf	Breastfeeding smoothly, postpartum
<i>Sauropus androgynus</i>	Nasi-nasi	Leaf	Breastfeeding smoothly, postpartum
<i>Zingiber purpureum</i>	Hunik	Root	Breastfeeding smoothly, postpartum

amboinicus). The medicinal plants (*Plectranthus amboinicus*) are grown in cultivation in Tipang Village. The method of processing and use is kneading the leaves and then cooking them.^{12,13}

Conclusion

Traditional medicine is part of the cultural system of the people of Tipang Village which has enormous potential benefits in building public health, particularly maternal and child health. These medicinal plants are used to cure various diseases that attack mothers and children. Local knowledge on how to mix and use these plants is local wisdom which is very important to be preserved and preserved.

Conflicts of interest

The authors declare no conflict of interest.

References

- Anggraeni R. Ethnobotany study of the Toba Batak sub-ethnic community in Peadungdung Village, North Sumatra, Indonesia. *Pro-Life*. 2012;3:129–42.
- Hanan H. Modernization and cultural transformation: the expansion of traditional Batak Toba House in Huta Siallagan. *Proc Soc Behav Sci*. 2012;50:800–11.
- Sibarani R. The role of local wisdom in developing friendly city. *IOP Conf Ser Earth Environ Sci*. 2018;126.
- Kamagaté M, Koff C, Akoubet A, et al. Ethnobotany, phytochemistry, pharmacology and toxicology profiles of *Cassia siamea* Lam. *J Phytopharm*. 2014;3:57–76.
- Silaban I, Sibarani R, Fachry ME. Indahan siporhis “the very best boiled rice mixed with herbs and species” for the women’s mental and physical health in ritual of traditional agricultural farming. *Enferm Clín*. 2020;30:354–6.
- Sibarani R. Developing friendly city and friendly village based on local culture: an anthropological study. *IOP Conf Ser Earth Environ Sci*. 2020;452.
- Sibarani R. The local wisdom on Aren (*Arenga pinnata*) palm tree in Toba Batak tradition of North Sumatra at Lake Toba Area. *J Phys Conf Ser*. 2018;1116.
- Sibarani R, Sibarani E, Simanjuntak P. Metaphors of land divisions for traditional irrigations at Tipang village, Lake Toba area: an Anthropological study. *J Leg Ethical Regul Issues*. 2021;24:1–9.
- Marbun SAH, Hamdani Harahap R, Sibarani R, et al. The effect of Batak Toba culture to management of natural resources and Toba Lake environment in Regency of Samosir. *Int J Civ Eng Technol*. 2018;9, 271:271–2.
- Octavianna Y, Sibarani R, Situmorang H, et al. Traditional praying performance Martonggotonggo and dancing performance Marpaniaran for the women’s health at the Toba Batak traditional wedding ceremony. *Enferm Clín*. 2020;30:357–60.
- Halimatussakdiah, Sibarani R, Fachry ME. The role of Tamiang’s local wisdom in decreasing postpartum depression: a linguistic anthropology study. *Enferm Clín*. 2020;30:491–3.
- Izwar I, Badaruddin B, Sibarani R, et al. Potential of reusam island to become sharia ecotourism area. *Geoj Tour Geosites*. 2020;30:827–34.
- Kuswanda W, Alikodra HS, Sibarani R, et al. Nest characteristics and populations of Tapanuli Orangutans in Batangtoru Landscape, South Tapanuli District, Indonesia. *Biodiversitas*. 2020;21:3398–408.