



## Traditional Medicine Using Betel Leaf for The Batubara Community

Lister Berutu<sup>\*ID</sup>, Khairul Zikri<sup>ID</sup>, Iqbal Pratama<sup>ID</sup>, Wily Simbolon<sup>ID</sup>, Noel Putra Hutaauruk<sup>ID</sup>, Rheysa Tara Nabila<sup>ID</sup>

Department of Anthropology, Faculty of Social and Political Sciences, Universitas Sumatera Utara, Medan, 20155, Indonesia

\*Corresponding Author: [listerberutu60@gmail.com](mailto:listerberutu60@gmail.com)

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### ABSTRACT

Betel leaf is a plant that grows a lot in Indonesia and can be easily found anywhere. The efficacy of betel leaf as a healing drug from various scientific research results concludes that betel has very nutritious ingredients and millions of benefits for health. The tradition of betel nut can strengthen teeth because ancient people already knew the efficacy of green betel leaf which can treat several diseases, this study explains how the benefits of betel leaf for medicinal ingredients. This research was conducted in the Batubara area, the technique of collection. The results of this study indicate that the coal community, treating illnesses such as fever still believes in the traditional way by using betel leaf as medicine.

**Keyword:** Betel Leaf, Traditional Medicine, Tradition

### ABSTRAK

Daun sirih tanaman yang banyak tumbuh di Indonesia dan bisa dengan mudah didapatkan dimana saja. Keampuhan daun sirih sebagai obat penyembuh dari berbagai hasil penelitian ilmiah menyimpulkan bahwa sirih mempunyai kandungan-kandungan yang sangat berkhasiat dan berjuta manfaat untuk kesehatan. Tradisi menyirih yang dapat menguatkan gigi karena masyarakat zaman dahulu sudah mengetahui khasiat daun sirih hijau yang dapat mengobati beberapa penyakit, penelitian ini menjelaskan bagaimana manfaat dari daun sirih untuk bahan pengobatan. penelitian ini dilakukan di daerah Batubara, teknik pengumpulan. Hasil penelitian ini menunjukkan bahwasanya Masyarakat Batubara, melakukan pengobatan sakit seperti demam masih mempercayai dengan cara tradisional dengan menggunakan daun sirih sebagai obat.

**Keyword:** Daun Sirih, Pengobatan Tradisional, Tradisi

## 1. Introduction

Traditional medicine is an essential component of the Indonesian culture and is passed down orally and in writing from generation to generation (Inaugurated 1983). Traditional medicines derived from these plants are easy to get around where you live and online. Traditional medicine treatment efforts are one type of community participation in promoting health (Suhendra et al., 2022). Affordable economy when compared to today's modern medicine and treatment. In addition, traditional medicines are relatively safe because they are not mixed with chemicals so they do not have side effects like modern medicines.

Knowledge of traditional medicine is an ancestral tradition of the Indonesian nation. Apart from having been handed down orally, and passed down from generation to generation, traditional medicinal knowledge has been recorded in canoe texts, including the Sundanese language texts called *Kumpulan Mantra*, *Paririmbun*, and *Petangan*. These texts contain spells related to medicine, eradicating epidemics, and removing poisons.

Knowledge of medicine and traditional medicine is still used by some people, although it is limited to certain circles, to deal with illness in emergency situations and maintain health. In addition, various types of plants which are the foundation of traditional medicine are developed for the benefit of modern medicine. Therefore, the existence of traditional medicine and treatment is increasingly

gaining recognition in the health sector, following the results of health research which concludes that various plants are very beneficial for health and beauty.

Plants as medicinal herbs are currently popular as a return to natural lifestyle pattern that has existed since antiquity in an effort to overcome various health problems since they are more cost-effective and have fewer side effects compared to modern medicine. The data from the Indonesian Health Consumer Empowerment Foundation (*Yayasan Pemberdayaan Konsumen Kesehatan Indonesia/YPKKI*) also revealed additional issues for medical services, such as illogical medical expenses, unlawful use, and expired medicine. The demand for medicines in the community is relatively considerable, yet excessive consumption of chemical medicines can have detrimental effects on health. For certain symptoms, including body weakness, cognitive weakness, dyspepsia, palpitations, and joint or muscle discomfort (Mulyana et al., 2022).

One of the natural resources is a plant that is often used for traditional medicine, namely betel; it is a vine that reaches a height of up to 15 m and has greenish-brown stems with joints as a place for roots to come out. This plant can reach tens of meters in length. The betel leaf is heart-shaped, long petiole, a flat leaf edge, a pointed leaf tip, leaf base notched, leaf veins pinnate and betel leaf has a green and smooth leaf surface, while the tree trunk is brownish green and the bark surface is rough and wrinkled. leaf surface, while the tree trunk is brownish green and the bark surface is rough and wrinkled. The lush betel leaves measure between 8 cm - 12 cm in width and 10 cm -15 cm in length. The underside of the leaves is smooth, thick, and white. Leaf bone length of about 5 cm – 18 cm, width 2.5 cm – 10.5 cm. Flower-shaped grain that stands alone at the branch's terminal and opposite the leaves. The luxuriant betel leaves range in width from 8 to 12 centimetres and in length from 10 to 15 centimetres. The underside of the leaves is thick, white, and smooth. Length between 5 cm and 18 cm; breadth between 2.5 cm and 10.5 cm. Flower-shaped grain that stands alone at the branch's terminal and opposite the leaves. Three to five utensils in total. Round Buni fruit with a bare tip, 1 to 1.5 centimetres in thickness, ripe grains with grey hairs and a thickness of 1 centimetre. The seeds are arranged in a circle (Pandit & Joshi, 2022).

Traditional medicine using betel leaf has been carried out by the Malay community for a long time, the Malay community considers that betel leaf has health value. The Malay community believes that betel leaf can be used as a medicine until now the Batubara people still believe that the benefits of betel leaf are so many, that betel leaf has been used for generations in traditional medicine such as cough, toothache, and nosebleed treatment. Betel leaves are used as a stimulant, an antibacterial, and a breath-freshener (Toprani & Patel, 2013). The parts of the betel plant such as roots, seeds and leaves have the potential for treatment but are most often used for treatment.

It can be said that traditional medicine using betel leaves for the Batubara community concerns social and cultural aspects and socio-cultural aspects have a role in the knowledge, behavior and beliefs of the Batubara people towards betel leaves as traditional medicine and in general this study aims to determine the benefits of betel leaves as a medicinal ingredient medicines and the belief of the Batubara community in traditional medicine.

## 2. Research Method

### 2.1 Materials and Methods

This research was conducted in Tanjung Tiram, Batubara Regency. The research design was qualitative research method.

### 2.2 Method of collecting data

Observation and interviews were used to collect data on the habits and behaviour of the population in general, as well as the habits and behaviour associated with the use of betel leaf. The question asked during interviews was, "What are the medicinal benefits of the betel plant?" How is the betel plant utilised as medicine?

### 3. Result and Discussion

Betel leaf, known as "*daun sirih*" in Malay, has been an important cultural symbol in Malay society for centuries. It is commonly used as a traditional medicine, a food ingredient, and a ceremonial item in various rituals. The significance of betel leaf in Malay culture can be traced back to the ancient times when it was used as a means of communication and hospitality. One of the most common uses of betel leaf in Malay society is as a traditional medicine. It is believed that chewing betel leaf can cure various health problems, including bad breath, stomachache, and toothache. The betel leaf contains eugenol, a natural antiseptic, and other essential oils that have medicinal properties. The leaf is often chewed with other ingredients such as areca nut, tobacco, and lime to enhance its effectiveness. Betel leaf (*Piper betle* L.) is a traditional medicine used in Indonesia for various purposes. It is used as an antiseptic, antioxidant, fungicide, and hemostatic. Betel leaves are used for vaginal douching in Indonesia, as a gargle mouthwash in India and Thailand, and as a herbal medicine to maintain endurance and health. Betel leaves are also used in cultural practices in Indonesia, such as offering them as a love gift or as part of a marriage proposal. It is often used by the Batubara Malay community for their health problems. This betel plant is most commonly used to treat fever and wounds, as its leaves are an effective disinfectant for wounds and a temperature reducer during fever (Sabrina & Diliarosta, 2022). Betel leaf or red betel leaf contains flavonoids, alkaloids, tannins, essential oils, saponins, and polyphenols.

Flavonoid compounds affect the integrity of the bacterial cell membrane by creating complex molecules with external proteins. In bacterial cells, the alkaloid compounds in red betel leaf function as antibacterials through the mechanism of peptidoglycan constituent components. By producing new networks of structural proteins involved in the wound-healing process, saponin chemicals can stimulate the synthesis of collagen. The antiseptic characteristics of saponin compounds make them highly useful for healing open wounds. Hence it can be demonstrated that red betel leaf is antibacterial for wound healing in *Staphylococcus aureus*-infected mice (Wurlina et al., 2019). Treatment of wounds using the betel plant is done by grinding the betel leaves, after being smooth, attaching them to the wound. Betel paste will quickly dry the wound and speed up the closing of the wound, it can even prevent bacteria from infecting the wound.

Betel leaf plays a significant role in Malay society, serving as a traditional medicine, a food ingredient, and a cultural symbol. Its multifaceted uses have ensured that it remains an essential element of Malay culture, a testament to the enduring cultural significance of this humble leaf. Betel is also used by the Batubara Malay community as a febrifuge when they have a fever. Types of leaves such as red betel leaves contain flavonoids which inhibit prostaglandins so that they have an antipyretic effect. Antipyretics function centrally to diminish the hypothalamic temperature regulating centre, which is followed by physiological responses including decreased heat generation, increased blood flow to the skin, and enhanced heat release through the skin by radiation, convection, and evaporation (Zelviani et al., 2020). The way to use it is that the betel is mashed using a grinder and there is also smoothing it by chewing. After that the fineness of the betel nut is rubbed into the forehead of a person who has a fever. The Batubara Malay community believes it can reduce fever also it is popular as the herbal plant that can treat nosebleeds. High in active components, betel leaf is a natural medicine effective for curing a wide range of illnesses. Betel leaf has been used as a medicinal herb since ancient. Generally, betel leaves are used as herbal medicine to treat nosebleeds. Betel leaf extract contains several phenolic components with antibacterial and antifungal activities, such as tannin and flavonoid (Nasution & Wulandari, 2020).

Betel leaves have styptic properties, aka bleeding arresters. This is what makes betel leaf effective for stopping bleeding in bleeding gums and also for someone who has a nosebleed. In addition, red betel leaf has the potential to be used as a natural antibacterial agent for the treatment of dental and oral health issues (Heliawati et al., 2022). The betel leaf colours include yellow, green, and dark green. When betel leaf is pressed, it emits a unique smell. The essential oils of betel leaves include betlephenol, chavicol, sesquiterpenes, hydroxychavicol, capitol, estragole, eugenol, and carvacrol. In addition, betel leaf contains diastase enzymes, carbohydrates, and tannins. Nosebleed is one that can be overcome by using betel leaves. They believe that betel leaf can reduce bleeding when nosebleeds occur. The way it works is that the betel leaf is folded so that it is oval in shape and can be plugged into the nose, the smell of the betel leaf is what they believe can stop bleeding.

### 4. Conclusion

Traditional medicine is part of the culture of the Indonesian nation which is passed down from generation to generation both orally and in writing. In addition, traditional medicines are relatively safe because they do not include any chemicals, therefore they do not have the same negative effects as modern medicines. Traditional medical knowledge is an ancestral tradition of the Indonesian people. These texts contain

incantations that speak of healing, eradicating pestilence, and removing the poison. Knowledge of medicine and traditional treatment is still used by some people, although it is limited to certain circles, to deal with illness in emergency situations and maintain health. The betel plant is often used by the Batubara Malay community for their health problems. Fever and wounds are usually most often treated using this betel plant because betel leaves can be used as a powerful antiseptic for wounds and can also reduce heat during fever. Betel is also used by the Batubara Malay community as a febrifuge when they have a fever. Red betel leaves contain flavonoids that block prostaglandins, resulting in an anti-inflammatory action. The betel leaf colour spectrum includes yellow, green, and dark green. When betel leaf is pressed, it emits a unique smell.

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