



Utilization of *Aloe Vera* as Herbal Medicine in Sobawagoli Village

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Abstract. *This study examines the utilization of Aloe vera as a herbal medicine by the community of Sobawagoli Village, Indonesia. The research aims to document local knowledge related to the processing, application, and perceived benefits of Aloe vera in traditional healthcare practices. A qualitative descriptive approach with a case study design was employed. Data were collected through direct field observations, in-depth interviews with community members, and documentation of preparation methods. The findings reveal that Aloe vera is widely used for both internal and external treatments, including digestive disorders, internal heat, hypertension, burns, skin inflammation, and natural skin and hair care. The plant is processed through simple methods such as boiling, blending, and direct topical application, reflecting the accessibility and practicality of herbal medicine in rural settings. Community perceptions toward Aloe vera are highly positive, viewing it as a safe, effective, and culturally embedded alternative to chemical medicines. These practices are supported by empirical experiences and align with recent scientific studies highlighting the therapeutic properties of Aloe vera. The study underscores the importance of preserving indigenous herbal knowledge and integrating it with modern health education to promote sustainable, community-based healthcare systems.*

Keywords: *Aloe Vera; Herbal Medicine; Local Knowledge; Public Health; Qualitative Studies.*

1. INTRODUCTION

Indonesia is internationally recognized as one of the world's megadiverse countries, characterized by extraordinary biological richness in terms of ecosystems, flora, and fauna. This biodiversity provides substantial opportunities for the development of natural resources, particularly medicinal plants that support traditional and herbal healthcare systems (Howes et al., 2020; Rachman, 2018; Shafi et al., 2021). The abundance of plant species with therapeutic potential positions Indonesia as a strategic center for herbal medicine research and development, especially within the context of sustainable and culturally rooted health practices.

Medicinal plants have historically played a fundamental role in maintaining community health across the Indonesian archipelago. Long before the introduction of modern pharmaceuticals, local communities relied on plant-based remedies to treat illnesses, prevent disease, and promote overall well-being (Mishra et al., 2025; Sundarrajan & Bhagtaney, 2023). These practices are closely linked to traditional herbal medicine, notably Jamu, which remains an integral part of Indonesia's cultural and medical heritage. Recent studies emphasize that Jamu is not merely a traditional remedy but a knowledge system shaped by intergenerational transmission and influenced by ancient medical traditions such as Ayurveda and Traditional Chinese Medicine (Utomo et al., 2022; Yunita et al., 2024).

In the last decade, interest in herbal and traditional medicine has increased significantly, both globally and nationally. This resurgence has been driven by growing public awareness of the adverse effects associated with prolonged use of synthetic drugs, as well as a shift toward holistic and preventive healthcare approaches (Ahmed, 2022; Muteeb et al., 2023; Quintero & Nichter, 2022; Rinaldi et al., 2020). In Indonesia, herbal medicine is increasingly viewed as a complementary component of modern healthcare systems, supported by scientific research and technological innovation, including the application of digital tools and artificial intelligence to optimize herbal formulations (Kusuma et al., 2022; Wibowo et al., 2025).

Despite this renewed interest, modern lifestyles and rapid pharmaceutical development have contributed to the declining use of traditional medicinal plants at the community level. Many individuals now prefer instant chemical treatments due to their fast-acting nature, often overlooking potential long-term health risks such as dependency, side effects, and disease recurrence (Awuchi et al., 2023; Utami, 2021). This trend is particularly concerning given Indonesia's favorable tropical climate and fertile soil, which provide optimal conditions for cultivating a wide variety of medicinal plants with proven therapeutic benefits (Mahato et al., 2025; Ngezahayo et al., 2025; Ramawat & Arora, 2021).

One medicinal plant that has received considerable scientific attention is *Aloe vera*, a species widely recognized for its diverse pharmacological properties. Recent studies have confirmed that *Aloe vera* possesses anti-inflammatory, antibacterial, antioxidant, and immunomodulatory activities due to its rich content of bioactive compounds such as aloin, emodin, saponins, polysaccharides, and vitamins (Darzi et al., 2021; Gupta et al., 2021; Surya, 2015). These properties make *Aloe vera* a multifunctional herbal plant used for treating digestive disorders, skin diseases, wound healing, and metabolic conditions.

Medicinal plants play an especially critical role in rural communities, where access to formal healthcare facilities and pharmaceutical drugs is often limited. Research conducted in various rural settings demonstrates that traditional knowledge of medicinal plants remains a vital health resource, offering affordable and culturally acceptable treatment options (Herningtyas et al., 2023; Nghayo et al., 2024). Studies also show that *Aloe vera* continues to be widely utilized in rural communities worldwide for managing common health problems, highlighting its relevance in community-based healthcare systems (Nicácio et al., 2023).

In Sobawagoli Village, *Aloe vera* is commonly cultivated as an ornamental plant; however, its medicinal potential has not been fully understood or systematically utilized by the local population. Preliminary observations and field interviews indicate that while some community members use *Aloe vera* to address health issues such as hypertension, acne, and

digestive disorders, many lack sufficient knowledge regarding proper processing methods, dosage, and safe application. Given its ease of cultivation and suitability for rural environments, *Aloe vera* holds significant potential as a sustainable herbal remedy. Therefore, this study aims to examine scientifically the utilization of *Aloe vera* as a herbal medicine in Sobawagoli Village, contributing to academic discourse while enhancing community awareness of local medicinal plants as safe, affordable, and effective health resources.

2. RESEARCH METHODS

This study employed a qualitative research design aimed at understanding social phenomena within their natural context. Qualitative research focuses on interpreting meanings, experiences, and practices as they occur in real-life settings, with the researcher serving as the primary research instrument. Specifically, this study adopted a descriptive qualitative approach using a case study design, which was selected to enable an in-depth exploration of a particular phenomenon within a clearly defined setting. The case study approach is appropriate for examining complex social practices and allows researchers to gain a comprehensive understanding of a single case by considering its contextual and cultural dimensions.

The focus of this research was the utilization of *Aloe vera* as a herbal medicine by the local community in Sobawagoli Village. This phenomenon was examined as a single case, reflecting the distinctive knowledge, practices, and experiences of the community in using medicinal plants. Informants were selected purposively based on their direct experience and knowledge regarding the use of *Aloe vera* for medicinal purposes. The data collected consisted of primary data obtained through direct field observation and in-depth interviews guided by semi-structured interview protocols. In addition, secondary data were collected from relevant documents, records, and written sources that supported and complemented the primary findings.

Data collection techniques included participant observation, in-depth interviews, and documentation to ensure a comprehensive and triangulated data set. Observation was conducted to examine community activities related to the cultivation, preparation, and use of *Aloe vera*, while interviews were used to capture informants' perspectives, experiences, and traditional knowledge. Documentation served as supporting evidence and data validation. Data analysis followed an interactive model consisting of three stages: data reduction, data display, and conclusion drawing and verification. Data reduction involved selecting, focusing, and simplifying raw field data to extract meaningful information. Data display was carried out through organized narrative descriptions and tables to identify patterns and relationships.

Finally, conclusions were continuously verified throughout the research process to ensure the credibility, consistency, and trustworthiness of the findings.

3. RESULTS AND DISCUSSION

Results

Overview of the Research Site and Community Characteristics

Sobawagoli Village is a rural village with a total area of approximately 1.2 square kilometers. The village is inhabited by 1,630 residents distributed across 220 households, indicating a relatively small and closely connected community. Most residents rely on agriculture as their primary livelihood, with approximately 95.7% working as farmers, while the remaining population is employed in non-agricultural sectors such as local services and government-related occupations. This demographic structure reflects a strong dependence on natural resources and traditional practices, including the use of medicinal plants for health purposes.

The agrarian lifestyle of the Sobawagoli community shapes their daily interaction with the natural environment. Home gardens and surrounding land are commonly used to cultivate food crops and medicinal plants, including *Aloe vera*. Due to limited access to healthcare facilities and pharmaceutical services, especially in the past, residents have historically relied on traditional knowledge to address health problems. This condition provides an appropriate context for examining the utilization of *Aloe vera* as a herbal medicine within the community.

Field observations revealed that *Aloe vera* is commonly grown in household yards, either directly in the soil or in pots and polybags. Its presence is considered essential, not only as an ornamental plant but also as a readily available remedy for minor illnesses and daily health care needs. This widespread cultivation demonstrates the cultural importance and perceived usefulness of *Aloe vera* among the residents. Such contextual factors strongly support the relevance of this study in exploring community-based herbal medicine practices.

Community Practices in Processing Aloe vera as Herbal Medicine

Based on observations and in-depth interviews conducted with ten community members, the study identified two primary methods of processing *Aloe vera* as herbal medicine: oral consumption and direct topical application. These methods are selected based on the type of illness being treated and the perceived effectiveness of the preparation. Informants reported that *Aloe vera* is commonly used to treat gastric acid disorders, constipation, internal heat, high blood pressure, burns, boils, eye inflammation, and for skin and hair care. The preparation processes are simple and rely on locally available tools and materials.

The first method involves boiling and blending *Aloe vera* gel for internal consumption. Residents usually select three mature leaves, wash them thoroughly, remove the outer green skin, and cut the transparent gel into small pieces. The gel is then boiled in three glasses of water until only one glass remains, typically for three to five minutes. After boiling, the mixture is blended, filtered, and mixed with honey or sugar before consumption. This herbal drink is usually taken once daily in the morning before meals.

Interview data indicate that this preparation method is primarily used to treat gastric acid problems, constipation, internal heat, and high blood pressure. One informant stated, “*We drink the Aloe vera juice regularly when stomach problems occur, and it helps reduce discomfort naturally.*” This statement reflects the community’s belief in the efficacy of *Aloe vera* as a safe internal remedy. The consistency of responses among informants suggests shared knowledge and collective agreement regarding this preparation method.

Table 1. Tools and Materials Used in Boiling and Blending *Aloe vera*.

Tools	Materials
Pot	<i>Aloe vera</i> leaves
Glass	Water
Basin	Honey or sugar
Spoon	
Knife/Cutter	
Cutting board	
Blender	
Strainer	

Direct Application of Aloe vera for External Treatments

The second method identified in this study involves direct topical application of *Aloe vera* gel to affected body parts. This method is commonly used to treat burns, boils, gum inflammation, eye irritation, acne, and hair problems. Residents typically select one large, mature leaf, wash it thoroughly, cut it open, and extract the gel. The fresh gel is then applied directly to the affected area without additional processing.

For burn and boil treatment, informants reported applying the gel two to three times daily until symptoms improve. According to one respondent, “*The cool gel reduces pain quickly and helps the skin heal faster.*” This practice reflects the community’s experiential knowledge of *Aloe vera*’s soothing and healing properties. The use of fresh gel is believed to ensure purity and maximize effectiveness.

In cases of eye inflammation, the gel is blended with a small amount of water, filtered, and used as a compress applied with cotton pads to the eyelids. This method is performed once or twice daily. Residents emphasized the importance of cleanliness during preparation to avoid contamination. Such practices indicate a level of awareness regarding hygiene despite the traditional nature of the treatment.

Utilization of Aloe vera for Skin and Hair Care

Beyond medicinal use, *Aloe vera* is widely utilized for natural beauty treatments among the Sobawagoli community. For facial care, residents prepare a mask by blending the gel from three leaves and applying it evenly to the face. The mask is left for 30–45 minutes before rinsing with warm water followed by cold water to close skin pores. This treatment is typically performed two to three times per week.

Informants believe that *Aloe vera* helps reduce acne, moisturize the skin, and improve overall facial appearance. The gel is said to contain vitamins A, C, and E, which support skin regeneration and protection. Although this knowledge is not based on laboratory analysis, it aligns with empirical experiences shared among community members. One female informant stated, “Using *Aloe vera* makes my skin feel fresher and reduces pimples.”

Hair care practices involve applying blended *Aloe vera* gel directly to the scalp and hair roots. The gel is left for approximately 15–30 minutes while gently massaging the scalp, then rinsed thoroughly with clean water. This treatment is believed to reduce hair loss, strengthen hair roots, and promote hair growth. These beauty-related uses further highlight the multifunctional role of *Aloe vera* in daily life.

Types of Illnesses Treated with Aloe vera

The study identified three main categories of *Aloe vera* utilization: internal diseases, external diseases, and natural beauty care. Internal ailments treated include gastric acid disorders (*Gambu dalu*), constipation (*Tobai mei ba'idane sebua*), internal heat (*Aukhu nesi*), and high blood pressure (*Alawa ndro*). These conditions are addressed through oral consumption of boiled and blended *Aloe vera* gel.

External conditions treated with topical application include gum inflammation (*Abao nini*), eye inflammation (*Aogo mata*), burns (*Sakhoji*), and boils (*Faosa*). These treatments rely on direct gel application or compress techniques. The effectiveness of these treatments is evaluated subjectively based on symptom relief experienced by users.

In addition, *Aloe vera* is widely used for cosmetic purposes, including acne treatment (*Forawa guli simane ba'ndrewa*) and hair care (*Forawa mbu*). These practices reflect the community's holistic approach to health, combining physical healing with body care. The diversity of applications demonstrates the plant's perceived versatility and importance in local healthcare practices.

Table 2. Types of Health Conditions Treated with *Aloe vera*.

Category	Health Conditions
Internal diseases	Gastric acid, constipation, internal heat, hypertension
External diseases	Burns, boils, gum inflammation, eye irritation
Beauty care	Acne treatment, hair care

Community Perceptions of Aloe vera as Herbal Medicine

The Sobawagoli community holds a highly positive perception of *Aloe vera* as a herbal medicine. Residents consider it safe, affordable, and easily accessible, making it a preferred first-aid remedy before seeking medical treatment. This perception is shaped by long-standing empirical experiences and intergenerational knowledge transmission. Almost every household maintains at least one *Aloe vera* plant in their yard.

Despite the positive perception, levels of knowledge vary among residents. Some individuals recognize the plant only as an ornamental species, while others understand its medicinal benefits but lack knowledge of proper preparation methods. Nevertheless, trust in *Aloe vera* remains strong due to repeated successful use over time. One informant explained, “*We trust Aloe vera because our parents used it, and it works.*”

The perception of safety is a key factor influencing continued use. In contrast to chemical medicines, which are often associated with side effects, *Aloe vera* is viewed as a natural and harmless alternative. This belief reinforces its sustained use and cultivation within the community. The findings indicate that *Aloe vera* is not only a medicinal resource but also a cultural symbol embedded in daily life.

Discussion

The findings of this study demonstrate that the community of Sobawagoli Village actively utilizes *Aloe vera* as a herbal medicine in their daily lives. The plant is processed in various forms depending on the type of health condition being treated, including topical application for burns, skin irritation, and boils, as well as oral consumption for digestive disorders, internal heat, and hypertension. These practices indicate that *Aloe vera* is deeply embedded in local health behavior and serves as a primary alternative or complementary treatment prior to seeking formal medical care. Such utilization reflects the continued relevance of traditional medicinal knowledge within rural communities.

The topical use of *Aloe vera* gel observed in Sobawagoli aligns with recent scientific findings regarding its dermatological benefits. Yuliana (2020) reported that *Aloe vera* gel possesses natural anti-inflammatory and antiseptic properties that are effective in treating minor burns and skin injuries. Similarly, Dewi & Hidayat (2021) found that the bioactive compounds in *Aloe vera*, particularly vitamin C and proteolytic enzymes, accelerate skin cell regeneration and support wound healing. These findings support the community’s experiential knowledge, as residents consistently reported positive outcomes when using *Aloe vera* gel to treat burns, acne, and skin inflammation.

The oral consumption of *Aloe vera* as practiced by the Sobawagoli community is also supported by contemporary studies. Rismayani (2019) demonstrated that *Aloe vera* consumption can help stabilize gastric acid levels and improve digestive function, which corresponds with the community's use of boiled and blended *Aloe vera* to treat gastric disorders, constipation, and internal heat. Furthermore, Nugroho (2018) highlighted that *Aloe vera* contains bioactive compounds such as aloemodin, saponins, and polysaccharides that function as antibacterial agents, immunomodulators, and detoxifying substances. These pharmacological properties reinforce the community's belief that *Aloe vera* helps maintain immunity and prevent mild infections.

In terms of cardiovascular health, the use of *Aloe vera* to manage high blood pressure reported by Sobawagoli residents reflects findings from recent empirical studies. Research by Hassan et al (2022) and Wang et al (2023) suggests that polysaccharides and antioxidants found in *Aloe vera* may contribute to improved blood circulation and reduced oxidative stress, which are factors associated with blood pressure regulation. Although the community's practice is based on empirical experience rather than clinical measurement, the consistency between local knowledge and scientific evidence indicates the potential relevance of *Aloe vera* as a supportive herbal therapy for chronic conditions in rural settings.

Beyond medicinal purposes, the utilization of *Aloe vera* for beauty and personal care observed in this study further emphasizes its multifunctional role. Wulandari & Saputra (2020) reported that natural *Aloe vera* masks are effective in maintaining skin moisture, reducing acne, and delaying signs of premature aging due to their antioxidant content. These findings are consistent with the practices of Sobawagoli residents who regularly use *Aloe vera* for facial and hair care. Collectively, this discussion highlights that the traditional use of *Aloe vera* in Sobawagoli Village is not only culturally inherited but also supported by contemporary scientific research, reinforcing its potential integration into community-based and sustainable healthcare practices.

4. CONCLUSION AND SUGGESTION

This study concludes that *Aloe vera* plays a significant role in the daily health practices of the Sobawagoli community and remains an essential component of local herbal medicine. The findings show that residents utilize *Aloe vera* in various forms, including oral consumption and topical application, to treat a wide range of internal and external health conditions such as digestive disorders, internal heat, hypertension, burns, skin inflammation, and cosmetic care. These practices are rooted in intergenerational knowledge transmission and are reinforced by

the community's direct experiences, which demonstrate the perceived effectiveness, safety, and accessibility of *Aloe vera* as a natural remedy.

Furthermore, the study highlights that the traditional utilization of *Aloe vera* in Desa Sobawagoli is consistent with contemporary scientific findings regarding its bioactive compounds and therapeutic properties. Despite variations in individual knowledge levels related to processing methods and dosage, community perceptions of *Aloe vera* remain overwhelmingly positive. This indicates strong potential for integrating local herbal knowledge with modern health education to enhance community-based healthcare. Therefore, systematic documentation, scientific validation, and educational initiatives are recommended to preserve this indigenous knowledge while ensuring the safe and effective use of *Aloe vera* as a sustainable herbal medicine.

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