

THE ROLE OF HERBAL MEDICINES ON INFANTS' DENTAL GROWTH IN THE SIMALUNGUN COMMUNITY THROUGH THE MANGAROUTOTOK SPELLS PERFORMANCE

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Abstract. *The research aimed at describing the role of herbal medicines on the infants' dental growth in the Simalungun Community through the Mangaroutotok spells Performance. This research employed the anthropolinguistic approach with the qualitative paradigm (Sinaga, 2019). The analytical method is an interactive model. There are three the interactive steps, namely: data condensation, data display, and conclusion drawing/verification (Miles, Matthew B; Huberman, 2014). There are three analytical parameters, namely: interconnection, valuability, and sustainability (Sibarani, 2018). The role of herbal medicines on infants' dental growth through the Mangaroutotok spells performance in the Simalungun community presents some plants, such as the sitabar banana midrib and demban panurangi (which contain the gambier, the betel leaves, the areca nut, black pepper, and whiting). This is an additional consumption to anticipate and treat symptoms that arise due to the infants' dental growth after herbal treatment. The infant does not have the high fever, fuzziness, and pain caused by an unhealthy body. Herbal medicines have positive impacts on the health, economic stability, and social harmony of the Simalungun community. In addition, this system can stimulate a sense of brotherhood with the helping concept through voluntarily budgeted treatments in the Simalungun community. Consuming herbal medicines has been proven to anticipate, reduce, and treat the symptoms caused by the infants' dental growth. It also gives the positive impacts such as health, economic stability, and good social relationships in the Simalungun community.*

Keywords: *Herbal Medicines, Infants' Dental Growth, Simalungun Community, Mangaroutotok Spells Performance.*

INTRODUCTION

Herbal medicines are naturally sourced from heterogonous plants, which are beneficial to the needs of human life. The government or private sector is trying to cultivate plants that work for herbal medicines such as frankincense or incense, black pepper, betel leaf, areca nut, tobacco, and others (Triana Sinaga et al., 2021). Herbal medicines are the local knowledge passed down to the younger generation. As an ancestral heritage, herbal medicine is very important to be maintained, especially the tradition of treatment using herbal medicine (Sinaga et al., 2019).

Herbal medicines naturally symbolize a fertile nature and depict the wealth of every ethnic group in Indonesia, which consists of 1.340 ethnic groups stretching beyond Sabang to Mauroke (Sibarani et al., 2021; Sibarani et al., 2021). The Indonesian ethnic group has a rich culture that contains local wisdom and can be used to organize the lives of local people to this day (Sibarani, Simanjuntak, et al., 2021). Each ethnic group has local knowledge of treatments using natural materials from nature, and they believe in the benefits of these materials for human health (Howshigan et al., 2015). The Simalungun ethnic group is one of them in North Sumatera, Indonesia (Octavianna et al., 2021; Silaban & Sibarani, 2021). The Simalungun community has a local medical tradition, namely *martabas*, "spells performed by a shaman." The *Martabas* is a medical performance with the aim of curing various diseases. The *tabas* has various types of spells to treat different diseases. The various diseases use different spells and herbs. It uses natural ingredients from nature as medicine (Sibarani et al., 2021a; Sibarani, 2021)

The *Mangaroutotok* is one type of spells in the traditional medicine of the Simalungun community. The *mangaroutotok* spells is performed by a shaman. Before starting the performance, the shaman prepared the required herbal ingredients. The *mangaroutotok* serves to anticipate and treat the symptoms of diseases caused by the infant's dental growth. The infant's dental growth occurs at the

age of 5-12 months. The infant’s dental growth causes several symptoms, such as fever, fuzziness, and pain. These symptoms can be anticipated and overcome by utilizing herbal medicines through *mangaroutotok* spells as the traditional medicine.

Based on the preliminary research, the researcher has witnessed the process of herbal medicine to treat symptoms due to dentition growth. These symptoms are recovered by utilizing the herbal medicines through *mangaroutotok* performance. The *mangaroutotok* contains the meaning of prayers for healing hopes. It is uttered on herbal medicines. Herbal medicines and the *mangaroutotok* spells performance are inseparable in the Simalungun community’s belief.

Based on those explanations, this study sought to describe the role and the impact of herbal medicines on infants’ dental growth through *mangaroutotok* spells performance in the Sumalungun community.

METHOD

The method of the research employed the qualitative paradigm. The analytical analysis applied the interactive model. There are three the interactive steps, namely: data condensation, data display, and conclusion drawing/verification were used in this research (Miles, Matthew B; Huberman, 2014). In collecting the research data, this study applied the observation and interview methods presented by a qualitative paradigm (Perbawasari et al., 2019, Aprilia et al., 2020, Sibarani et al., 2020). In the observation method, the researcher made direct observations to identify the aspects related to required data, object restrictions, and recording. The researcher asked some questions that are flexible and open, not strictly structured and informal situations.

This study was conducted in a natural setting with an emic and subjective perspective. In analyzing data, the first step that the researcher has taken is to carry out the data selection process, focus on the important data, simplify the data, transform the data, summarize and limit the core data, get rid of unnecessary data, and mark the data with a highlighter. Then correct the steps again to ensure that there is no more scattered data, and make the summary in the description, so that it is easy to observe the data for discussion (Perbawasari et al., 2019 and Yulisfan et al., 2021). The second step is to group the results of interviews and observations into tables to be presented and discussed. The third step is concluded in the form of descriptions to show temporary research findings and can be verified if they find strong evidence to support them and become credible.

The study was carried out in the Silau Kahean District, Simalungun Regency, and North Sumatera Province. The approach of this study used an anthropolinguistic approach in conjunction the three following analytical parameters, namely: (1) interconnection, (2) valuability, and (3) sustainability (Sibarani et al., 2021b).

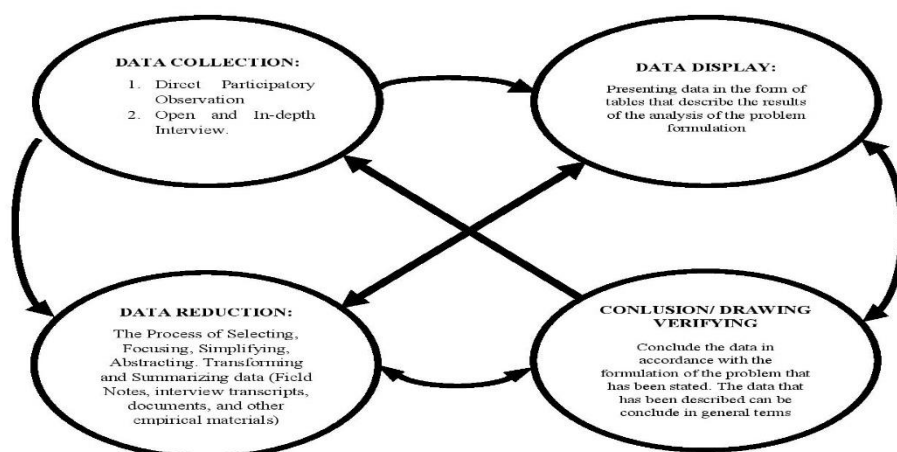


Figure: 1. Interactive Model: Huberman AM, Miles M, Saldana J (2014: 10).

Research Results

The role of herbal medicines on the infants’ dental growth in the Simalungun Community through the *Mangaroutotok* spells Performance.

Table. 1. The role of herbal medicines on the infants' dental growth in the Simalungun Community through the *Mangaroutotok* spells Performance

No	Materials	Amount	Function	Description
1.	<i>Demban Panurungi</i> (Betel leaf, whiting, areca nut, Gambier, black pepper)	Seven Wrap	<p>a. The goal is to treat the various diseases based on the type of spells, especially for the infant dentition process.</p> <p>b. The function is to treat the various diseases on the inside of the body by consuming it.</p> <p>c. Then, to treat the various diseases on the outside of the body by chewing and spouting them out.</p>	<p>The <i>Demban panurungi</i> are the ingredients used to treat various types of diseases. It consists of betel leaf, whiting, areca nut, Gambier, and black pepper. Then, whiting, areca nut, Gambier, and black pepper are wrapped in the betel leaf. The four ingredients are folded in the betel leaf. Then, betel leaf is folded into <u>four fold</u>.</p> <p>The first fold is to fold the middle part of the betel leaf equally lengthwise. The second fold is the right and left sides, with the two ends being together. The third fold is the stem of the betel leaf is folded inward, so that the four ends are together. The complete ingredients and the correct folding method are the rules of <i>demban panurungi</i>.</p>
2.	<i>Sitabar banana midrib</i>	Seven pieces.	<p>a. It contains substances that can provide a sense of cold to reduce the pain.</p> <p>b. The surface is rough, so it is appropriate to use as a bite material when the gums swell.</p> <p>c. <i>Sitabar</i> banana midrib is specifically for the treatment of infants' dental growth.</p>	<p>The midrib of the <i>sitabar</i> banana is cut along the middle finger of an adult, but it should not be separated. Then, the skin of the <i>sitabar</i> banana midrib is peeled to make it clean and hygienic when it is consumed.</p>

The Beneficial Effects of Herbal Medicines on the Simalungun Community through *mangaroutotok* Spells Performance.

Herbal medicines have contributed to human health, economic stability, and good social relationships in the Simalungun Community. In this research, the focus of the discussion is on the health of the infants' dental growth. The herbal medicines functions to anticipate, reduce, and treat symptoms of infants' dental growth. The herbal medicines are *sitabar* banana midrib and *demban panurungi*. *Demban panurungi* consists of betel leaf, whiting, areca nut, Gambier, and black pepper. The processing of two herbs is according to the rules and performance tradition of *mangaroutotok* spells. The proper implementation gives satisfactory results for the infants' dental growth.

Traditional medicine using herbal medicines has had a positive impact on the economy of the Simalungun community, especially for the shaman. Traditional medicine implements a voluntary payment system for medical costs. This system has existed since their ancestors and is inherited today. The Simalungun community implements the treatment system because they are still very obedient to the tradition. They also need to help each other and uphold a sense of brotherhood. Thus, the establishment of social harmony between the communities, especially for the Simalungun community (Silaban et al., 2020).



DISCUSSION

Herbal medicines are a necessity for the Simalungun community. Herbal medicines are the important objects to be inherited. Herbal medicine contain local wisdom that is useful for their lives and has been inherited from their ancestors. The Simalungun's younger generation must understand the functions of herbal medicines. Therefore, it is related to their spirituality and helps to improve the social relationships in Simalungun community.

Through herbal medicine, the treatment for the infants' dental growth is carried out on an ongoing basis, therefore the *mangaroutotok* tradition is also maintained. Herbal medicines can alleviate the symptoms of the infants' dental growth by performing the *mangaroutotok* spells. The main herbs for infants' dental growth are *demban panurungi* and *sitabar* banana midrib. The Simalungun community cultivates the *Sitabar* banana midrib and *demban panurungi* according to the customs of their ethnicity. They use natural material that they get in their environment as ingredients herbal to cure the symptom for the infants' dental growth. It is the local knowledge that can be used to cure the symptoms. The symptoms of infants' dental growth are high fever, restlessness, fussiness, and sore gums. This causes pain for a long time.

Demban panurungi is a combination of five types of herbal plants, namely: black paper, betel leaf, whiting, areca nut, and Gambier, which have different functions for the human body. The first herbal is black pepper. It functions to prevent inflammation of the gums, relieve colds and coughs, warm the body and strengthen our bodies. It can fight the diseases and viruses in our bodies. The second is the betel leaf. It functions to prevent infection due to bacteria, heal wounds, prevent dental plaque, and act as an antiseptic. The third is whiting. The whiting functions help kill bad bacteria that cause infection, thereby reducing pain. The fourth is areca nut. The areca nut functions provide oral health benefits such as cavity prevention, tooth strengthening, and dry mouth treatment. The last is gambier. Gambier has several functions, namely: to strengthen teeth, as a source of anti-oxidants, and so on. All those herbal medicines have benefits for the health of the body, especially for oral health. They can anticipate, reduce, and treat the pain of gum swelling.

The use and completeness of herbal medicines must follow the appropriate rules or dosages in order to obtain benefits. As we know, each treatment has its own rules and portions. The use of *demban panurungi* has a good impact on the inside and outside of the body by consuming and spraying it on the sick body part. Simalungun people believe that *demban panurungi* has been enchanted and has good properties. Herbal ingredients as medicines to be consumed and spells as prayers to God. Simply, the shaman utters the spells on the medicine as the prayers and they believe that it will provide healing.

Besides that, *sitabar* banana midrib also has good benefits for health, especially for gum health. It contains water that can soothe the gums. The water contained in the *sitabar* banana midrib will mix with the infant's saliva when he or she bites into the *sitabar* banana midrib. Then, the shaman uttered the *mangaroutotok* spell on *demban panurungi*. He uttered the *mangaroutotok* spell while he held the *demban panurungi* and brought the hilt to his lips. He uttered *mangaroutotok* seven times while holding his breath. It is in accordance with the established rules. The rule is carried out with the aim of getting the benefits of the *mangaroutotok* spell.

The process of *mangaroutotok* spells contains some steps. The first step, the shaman takes one of the *demban panurungi* and chews it smoothly. The second step, the shaman spit out the *demban panurungi* on the fronds of the *sitabar* bananas. So, the water content of the *sitabar* banana midrib, *demban panurungi*, baby's saliva, and the *mangaroutotok* spells, which function as a prayers, combine into a drug to overcome the symptoms. The combination of them aided in curing the symptoms caused by the infants' dental growth. Infants who are in this period of teething will not feel the symptoms and they are able to go through this period without experiencing the symptoms.

The infant consumed the *sitabar* banana midrib by putting it on their sore gums. The mother helped the infant hold the *sitabar* banana midrib for some time until the infant did not want it again. Furthermore, if the baby has thrown it away or dropped it, it cannot be used again. Mother can administer it the following day and for a maximum of seven days.

Besides the health impact, herbal medicines also have a positive impact on the economy of the Simalungun community. The economic impact is to ease the burden on the patient's family related to medical expenses. Then, the shaman can increase their income because his main profession is as a farmer. This can be seen from the payment system for medical expenses paid to the shaman as the performer of the *mangaroutotok* spell. Then, for the Simalungun community, it can strengthen the sense of kinship because they can help each other.

The Simalungun community implements a voluntary method by not fixing the cost of treatment. The cost of treatment is a symbol of gratitude to shamans according to the ability of the patient. This system will help the Simalungun community. They will be able to seek treatment without worrying about the treatment cost, which is quite expensive. They can come to the shaman's house at any time. The shaman always received patient because the purpose of traditional medicine is to help people who are having difficulties.

Besides that, the shaman accepts the patient's gift with a sincere heart. The patient can give a pack of cigarettes as a sign of gratitude if they do not have money. Shaman is always willing to help people who come to his home for treatment. He is willing to come to the patient's home if the patient's health is very bad. It shows that the shaman has a sense of concern for patients because their ancestors taught the Simalungun people to help each other without expecting anything in return.

Then, the performance of the *mangaroutotok* spells implements the affordable cost of treatment because it uses herbal medicines that are available in their environment. This tradition is still carried out by the Simalungun community, especially those who live in the village. By implementing this system, the shaman can get an additional source of income because his main profession is as a farmer.

CONCLUSION

The herbal medicines were proven to anticipate, reduce, and treat the symptoms caused by infants' dental growth, such as high fever, pain, and fussiness caused by swelling of the gums starting to grow. Herbal medicines have some good impacts. It has been proven to treat and improve health, economic stability, and good social relations in the Simalungun community. Herbal medicine is the main ingredient in traditional medicine by practicing the *mangaroutotok* spells.

Conflicts of interest


The authors declare that there is no conflict of interest in this research.

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References

- [1] Aprilia, D, & Safiera, S, (2020). The Cultural Relativism (A Pattern of Symbolic Discourse or Language). *Turkish Online Journal of Qualitative Inquiry*. 11(4). 910-915. <https://tojqi.net/index.php/journal/article/view/8201>
- [2] Howshigan, J., Perera, K., Samita, S., & Rajapakse, P. S. (2015). The effects of an Ayurvedic medicinal toothpaste on clinical, microbiological and oral hygiene parameters in patients with chronic gingivitis: a double-blind, randomised, placebo-controlled, parallel allocation clinical trial. *The Ceylon Medical Journal*, 60(4), 126-132. <https://doi.org/10.4038/cmj.v60i4.8219>
- [3] Miles, Matthew B; Huberman, A. M. (2014). *Qualitative Data Analysis* (third edit). Sage Publication.
- [4] Octavianna, Y., Sibarani, R., Situmorang, H., & Hasibuan, N. H. (2021). The impact of Marpaniaran 'traditional dance of women' of Toba Batak wedding ceremony for women's physical and mental health. *Gaceta Sanitaria*, 35, S537-S539. <https://doi.org/10.1016/j.gaceta.2021.07.030>

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- [5] Perbawasari, S., Sjachro, D. W., Setianti, Y., & Nugrahar, A. R., (2019₁). Halal Tourism Communication Formation Model In West Java, Indonesia. *GeoJournal of Tourism and Geosites*, 25 (2), 309-320.
- [6] Perbawasari, S., Dida, S., Nugraha, A. R., & Sjachro, D. W., (2019₂). Indung/Parent Management Communication Model to Establishment of Tourism Identity Based On Sundanese Cultural Values. *GeoJournal of Tourism and Geosites*, 27 (4), 1201-1211
- [7] Sibarani, R. (2018). Batak Toba society's local wisdom of mutual cooperation in Toba Lake area: a linguistic anthropology study. *International Journal of Human Rights in Healthcare*, 11(1), 40-55. <https://doi.org/10.1108/IJHRH-08-2017-0035>
- [8] Sibarani, R., Deliana, F., & Yanti, D. (2021). The Role of Language Landscapes for Tourist Destination at Toba Caldera Geosites: A Landscape. 17(4), 2419-2434.
- [9] Sibarani, R. et. a. (2021). The Local Wisdom of Traditional Irrigation System for Agrotourist Destination at Tipang Village, Lake Toba Area: Ritual and Tradition. *Linguistica Antverpiensia*, 2021(3), 733-747. <https://hivt.be/linguistica/article/view/1073>
- [10] Sibarani, R., Indra, R., & Riady, I. (2021). Tradition and Modernization-Based Changes in The Pattern of Huta "Traditional Residences" of Toba Batak at Tipang Village, Baktiraja District, Humbang Hasundutan. 17(4), 2724-2738.
- [11] Sibarani, R., Sibarani, E., & Simanjuntak, P. (2021a). Local Wisdom of Huta "Traditional Residence" of Tipang. 17(4), 2457-2472.
- [12] Sibarani, R., Sibarani, E., & Simanjuntak, P. (2021b). Metaphors of land divisions for traditional irrigations at Tipang village, Lake Toba area: an Anthropolinguistic study. *Journal of Legal, Ethical and Regulatory*, 24(2), 1-9.
- [13] Sibarani, R., Simanjuntak, P., & Fachry, M. E. (2020). The role of women in developing a friendly village for Health: Study of local wisdom marsirimpa in North Sumatera Province. *Enfermeria Clinica*, 30, 226-228. <https://doi.org/10.1016/j.enfcli.2019.07.095>
- [14] Sibarani, R., Simanjuntak, P., & Sibarani, E. J. (2021). The role of women in preserving local wisdom Poda Na Lima 'Five Advices of Cleanliness' for the community health in Toba Batak at Lake Toba area. *Gaceta Sanitaria*, 35, S533-S536. <https://doi.org/10.1016/j.gaceta.2021.10.086>
- [15] Silaban, I., & Sibarani, R. (2021). The tradition of Mambosuri Toba Batak traditional ceremony for a pregnant woman with seven months gestational age for women's physical and mental health. *Gaceta Sanitaria*, 35, S558-S560. <https://doi.org/10.1016/j.gaceta.2021.07.033>
- [16] Silaban, I., Sibarani, R., & Fachry, M. E. (2020). 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. *Enfermeria Clinica*, 30, 354-356. <https://doi.org/10.1016/j.enfcli.2019.11.002>
- [17] Sinaga, N. T. (2019). The Performance of English Department Students in Retelling Story : An Anthropolinguistic Study. *International Journal of Research and Review*, 6(August), 266-276.
- [18] Sinaga, N. T., Sibarani, R., . P., & Agustono, B. (2019). Performative Verb of Saluh Suh's Incantation in Simalungun Ethnic: An Anthropolinguistic Study. *KnE Social Sciences*, 2019, 876-887. <https://doi.org/10.18502/kss.v3i19.4914>
- [19] Triana Sinaga, N., Sibarani, R., . P., & Agustono, B. (2021). The Local Wisdom of the Mangarou Totok Spell Towards Natural Resources in the Simalungun Community: An Anthropolinguistic Study. *KnE Social Sciences*, 2021, 437-449. <https://doi.org/10.18502/kss.v5i4.8702>
- [20] Yulisfan, Y., Muda, I., & Nedelea, A. M. (2021). Implementation of Digitalization On The Revenue Cycle To Improve The Quality Of Decision Making More Timely In Indonesia. *Ecoforum Journal*, 10(3). <http://www.ecoforumjournal.ro/index.php/eco/article/view/1217/762>