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Indexicality of *Minyak Karo* in North Sumatra: An Anthropolinguistic Perspective

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Abstract. This study aimed to describe the indexicality *Minyak Karo* in North Sumatera. It focused on describing the ingredients used for making the *Minyak Karo*, the ritual process of making *Minyak Karo*, the purpose of the ritual carried out in making *Minyak Karo*, and performance in the ritual of making *Minyak Karo* in Padang bulan and Pancur batu regency, North Sumatra. Qualitative method and Anthropolistic perspective were applied in this study. The data collection techniques used was observation, in-depth interviews and documentation. The result of the study showed that there were 107 genera and 57 families in making *Minyak Karo* to treat different diseases, such as kaffir lime/kaffir lime leaves, ship-board leaves, jambar api, bulung patchouli, gagaten tiger, basil, panglai, shallots, garlic, pepper, nutmeg, turmeric, areca nut, tawan gegeh, root areca nut, bamboo root, riman root, pengkih root, and alang-alang. The purpose of the ritual of making *Minyak Karo* based on anthropolingustic study was to be able to cure diseases that were believed to come from supernatural spirits or diseases sent by people through supernatural means and asked for protection from the spirits of the ancestors.

Keywords: Indexicality, *Minyak Karo*, Anthropolinguistics, Local wisdom

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1 Introduction

In recent years, studies of the ethnic group showed that traditional medicinal plant selection is driven by both cultural and historical factors. That the Indonesian government considers traditional medicine as an essential resource in the cause of development [1]. As a consequence, traditional medicine becomes a progressive tradition. From the perspective of Indonesian, traditional medicine includes a wide variety of shaman who practices as curers, sorcerers, and ceremonial specialists in the form of medical anthropology study. Medical anthropology attempts the evidence of cultural and technical rationality of so-called traditional medicine in order to reveal the knowledge of traditional medicine and the culture of indigenous people themselves.

For the last few decades, anthropolinguists believe that the classification of language diversity adds the maintenance to culture through local wisdom [2]. The local wisdom is also known as local knowledge (indigenous or local knowledge), or local intelligence (local genius), which forms the basis of cultural identity. Local wisdom is one of the heritage of the ancestors; the

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inheritance can be in the form of values of life that are united in the form of religion, culture, or customs. Local wisdom is a basic knowledge gained from living in balance with nature. It is related to culture in the community which is accumulated and passed on from generation to generation. This wisdom can be both abstract and concrete, but the important characteristics come from experiences or evidence gained from life. The wisdom from real experiences integrates the body, the spirit and the environment [3].

The Karo ethnic believes that traditional Karo medicine is very useful for maintaining body resistance or improving their health conditions. That any native plant can be considered a resource for humankind, contributes to the health and stability of the community in which it occurs. In any flora, plants that are used directly by local communities for food, forage, fiber, timber, medicine, ceremony, symbol, or income will be called ethnobotanical resources [4]. One of the well-known traditional treatments in North Sumatra is treatment using *Minyak Karo*. Treatment using *Minyak Karo* has been done for generations. Karo people are spread in many regions of North Sumatra Province, Indonesia, but their origin is from the Karo Regency. Karo community strongly believes that humans from birth to death cannot be separated from their social functions. Using and utilizing plants as health support materials is one form of application of the understanding of the Karo community in the management of natural resources [5].

The reason to conduct the study of anthropolingustic in *Minyak Karo* was when the society continued to maintain traditional medicine and cultural needs, they performed the conservation as a global agroecosystem. If a plant variety becomes extinct, then the entire body knowledge about its properties becomes irrelevant and the usefulness to humankind is severely reduced. The loss of linguistic and cultural knowledge, like the loss of biological diversity, can lead to an overall loss of resilience in terms of community sustainability, public health, and economic vitality, especially in light of global climate change" [6]. According to the two theories, the empirical study of anthropology linguistics must be encouraged to understand how the local people perceive, understand, and classify plants based on their own unique local cultural context and worldviews. Since species extinction leads to the loss of cultural knowledge, the writer conducts a study to determine the need for an outside force to effect meaningful conservation of both threatened flora species and cultural knowledge in *Minyak Karo.* The core question to the research is, what are the anthropolinguistic meanings of *Minyak Karo* based on its medicinal plants, local wisdom, and cultural heritage?

The objective of the study was to describe the indexicality of *Minyak Karo* from an anthropolinguistic perspective. It revealed the meanings of *Minyak Karo* based on its medicinal plants, local wisdom, and cultural heritage. It highlights the medicinal plants, ideological, and sociological dimensions of Karo culture. This study focused on the understanding of how human socio-cultural systems and natural plant resources co-adaptively change and influence each other to preserve traditional conceptions of the natural environment and human behaviour in tradition or ritual. The significance of the study lies in the following areas which appear to be under-represented in the current literature: (a) Theoretically, the findings of this study will enrich the model analysis of anthropolnguistic, local wisdom, and Karo culture embodied in traditional medicine. This study also enhances the biocultural diversity conservation debate because of the importance of traditional communities in conservation. (b) Practically, the

findings of this study will add linguistic conservation through local perceptions (Karonese) by revealing the value of *Minyak Karo*. This study also gives an indicator to cultural diversity at a local scale to be recognized in global community life. *Minyak Karo* can be used to support local communities in North Sumatra, Indonesia because it is deeply ingrained in people's ethnoecological and ethnobotanical knowledge systems.

2. Literature Review

Anthropolinguistic

Anthropolinguistic is the study of language within the framework of anthropology, the study of culture within the framework of linguistics, and the study of other aspects of humankind within the interrelated framework of both anthropology and linguistics [7]. Anthropolinguistic is an interdisciplinary field studying the interaction between language and culture. It investigates how culture affects language or how cultural practices are reflected in language patterns [8].

The ideological dimension is the relationship of the individual with his mental, cognitive and psychological systems reflected in his pattern of language use, linguistic repertoire with their meanings, and behaviour content. The sociological dimension is the dimension or measure of how a person organizes relationships between others to build, establish and maintain harmonious individual relationships collectively, such as a sense of mutual affection for each other, including mutual love within family members, and mutual respect in a community. The biological dimension relates to life with nature and its contents, including species of flora, fauna, rocks, micro, and macro-organisms [9].

Medical anthropology studies health and illness from a cross-cultural perspective. The beliefs, practices, and knowledge with which social groups thwart threats to health and diagnose and treat ailments make up their medical system [10]. At present, medical anthropology is developing in three main directions: (1) ethnomedicine, focusing on people’s perception and examining those health beliefs and practices which are the products of native cultural development and are not explicitly derived from the conceptual framework of biomedicine; (2) medical ecology, examining disease patterns in human populations that are considered to be biological as well as cultural entities; and (3) applied medical anthropology.

Cultural anthropology concentrates on humans in groups and as members of groups, not, of course, denying humans their individuality. Therefore, cultural anthropologists want to know humanity in its full behaviouralbehavioural and cultural diversity. According to the American Anthropological, the premier professional organization in the United States, the four fields of anthropology are:

1. Cultural (or social) anthropology, which studies “social patterns and practices across cultures, with a special interest in how people live in particular places and how they organize, govern, and create meaning”
2. Physical (or biological) anthropology, studying “how humans adapt to diverse environments, how biological and cultural processes work together to shape growth, development and behavior, and what causes disease and early death. In addition, they are interested in human biological origins, evolution, and variation”

3. Archaeology, the study of "past peoples and cultures, from the deepest prehistory to the recent past, through the analysis of material remains, ranging from artifacts and evidence of past environments to architecture and landscapes"
4. Linguistic anthropology, or "the comparative study of ways in which language reflects and influences social life [11].

Indexicality

The concept of indexicality comes from the thought of the American philosopher Charles Sanders Pierce distinguishing signs of three types, index, symbol, and icon. The index is a sign indicating that there is a natural and existential relationship between the marked and the marked. The concept of indexicality is applied to linguistic expressions such as demonstrative pronouns, pronomy, personal pronouns, temporal expressions, and spatial expressions. In studying language and culture, the centre of attention is linguistic anthropology [12]. The focused on three important topics, namely: performance, indexicality, and participation. It is important to study the indexicality of 'something' in each community. The knowledge and memory of something or doing something are indexed to the community that holds the tradition or activity [13].

Local Wisdom

Local wisdom consists of two words, namely wisdom and local. The definition of local wisdom means local wisdom which can be understood as local ideas that are wise, full of wisdom, of valuable values that are embedded and followed by the members of the community [14]. All forms of local wisdom are lived, practised, taught, ad passed on from generation to generation as well as forming patterns of human behaviour towards fellow humans, naturals, and the occult. The local wisdom is related to environmental wisdom. Environmental wisdom is a cultural value that reflects the success of human adaptation in interacting with the natural environment which is carried out consciously and wisely in an effort to maintain and improve the quality of survival while maintaining stable environmental conditions and functions [15].

Cultural Heritage

There is a relation between language and society. It concerns the language used by people to express identity, from one to another to find protection and increase various kinds of power [16]. It is observed to find the correlation between social structure and linguistic structure. A language may be varied due to the class, gender, social status, and social background." Cultural heritage is the legacy of physical artefacts and intangible attributes of a group or society that are inherited from a past generation, maintained in the present, and bestowed for the benefit of future generations. Culture or civilization taken in its wide ethnographic sense, is that complex whole that includes knowledge, belief, art, morals, law, custom and any other capabilities and habits acquired by man as a member of society [17].

Cultural heritage, in its broad sense (in other words, not only addressing the aspect of documentary cultural heritage as defined by UNESCO), carries with it the implicit, and the problematic, notion of memory. It is people's memories, both individual and shared, that shape

the formation of cultural heritage. It could be argued that scientific scholarship should be excluded from this discussion on memory. However, in terms of indigenous knowledge systems, scientific knowledge is passed down through the generations orally and thus is also affected by the element of memory.

Ethnobotany of Medicinal Plants

Languages and cultures have coevolved with the biotic and abiotic environments in which they developed [18]. The ethnobotany itself, utilitarian, cognitive and ecological perspectives have been used to understand the place of plants in human society. The utilitarian approach looks at how people use plants. Cognitive ethnobotany was influenced by cognitive anthropology. It focuses on peoples' beliefs, symbolizations and perceptions of plants, and how these perceptions and beliefs affect their use and management of plants. Folk taxonomy and the place of plants in myths, art and rituals is one of its central interests.

Indigenous plant knowledge and use provide the foundations of the meaning of life, death and the supernatural. Plants occupy key positions in religious rituals and other socio-cultural beliefs in traditional societies, serving as gateways to the sacred world [19]. The world of the spirits is approached with various uses of plants, whether it is to approach benevolent or malevolent spirits or to worship the Supreme Being. The centrality of plants in human culture is most evident in medicinal and spiritual quests. The knowledge of plants' healing power for both physical and psychological illnesses by herbalists is a key force that commands the attention and respect of community members [20].

Minyak Karo

Indonesia is one of the essential oil-producing countries. These parts include roots, seeds, fruit, flowers, leaves, bark, twigs, and rhizomes [21]. Karo people are spread in many regions of North Sumatra Province, Indonesia, but their origin is from the Karo Regency. They migrated to various places such as Medan City, Binjai, Deli Serdang, Langkat, and Simalungun Regency. The size of the Karo regency is 2.97 % of the North Sumatra Province. Karonese population in North Sumatra in 2011 was about 913.000 people or 6.90 % of the total population of North Sumatra (North Sumatra Statistical Bureau, 2012; Karo Regency Statistical Bureau, 2012).

The making of *Minyak Karo* is one form of local wisdom that is very well known in Karo culture. *Minyak Karo* consists of processed spices in the form of oil that is useful for curing various diseases, such as aches and pains, sprains, whiplash, colds, shifts in joints, stomach acid, headaches, allergies and so on. The composition contained in *Minyak Karo* is different. As in the Village of Lingga, one of the residents added to it the contents of monkey oil and snake oil for ndikar (grappling) activities. The spices consist of coconut oil, monkey oil, python oil, tiger/cat oil, sesame oil, green coconut oil, rattan root (ketang), sugar palm (*enau*), areca root, iron-tree root, yellow bamboo root (hurgen) tuba root, coconut root, parched nek miting. Karo people use various plant species for their daily life including for medicines. That in terms of illness treatment, they have a philosophy *"lit bisa lit tawar"* which means that all diseases can be treated or cured. They strongly believe that nature provides medicines to cure diseases. The use of natural resources as medicines for curing diseases including diabetes practised by Karo as part of their culture since a long time ago [22].

Figure 1. *Minyak Karo*

3. Method

To answer the research problem, the researcher used qualitative research methods with a qualitative descriptive approach. That qualitative research was a research that intended to understand phenomena about what was experienced by research subjects such as behaviour, perception, motivation, action, and by means of descriptions in the form of words and language, in a special natural context and by utilizing various natural methods. This paradigm viewed social sciences as a systematic analysis of the social actors concerned with creating and maintaining or managing their social world [23].

The purpose of this research was to describe any phenomenon of ritual in *Minyak Karo* in Padang Bulan and Pancur Batu, North Sumatra. Furthermore, to enhance the results of the research, then the researchers added some literature related to the medicinal plants of *Minyak Karo* in the form of articles, scientific papers, books, journals on rituals, ceremonies and other literature that related to the case in carefully.

Data and Source Data

The data in this research were taken from sources of the area that were selected in Padang Bulan and Pancur Batu areas in North Sumatra, Indonesia. The data also were taken from documents that related to *Minyak Karo* materials.

Technique Data Collecting

The data were collected using three techniques that include (i) observation, (ii) interview, and (iii) document. The observation technique used in this research was nonparticipant observation because the researcher only recorded what he observed without interacting directly with the informants. The interview conducted in this research was an unstructured, open-ended interview; the interviews were audio-taped and transcribed. The document technique was conducted in this research to collect the documents supporting the data obtained through observation and interview.

Technique Data Analyzing

At the stage of analyzing data, the data used qualitative methods by using three steps, they were data condensation, data display, and conclusion drawing or verification.

4. Results and Discussions

Results

Minyak Karo was a traditional medicinal herb in liquid form, green in colour with extracts of more than 80 species of plants and the addition of coconut oil *(Cocos nucifera). Minyak Karo* or commonly called *Minyak Pemalun* was usually made from generation to generation by traditional. *Minyak Karo* had long been used by the community as a massage oil. The general materials used to produce *Minyak Karo* were the same, namely: spices, roots and coconut oil because *Minyak Karo* was used by rubbing/massage. This oil was 100% natural and had a long shelf life even without chemicals.

The Medicinal Plants and its Functions that Used in Making *Minyak Karo* in Padang Bulan and Pancur Batu, North Sumatra

Table 1. Medicinal Plants Species Used by Karonese People in Merdeka Sub-District. Plant Sources: W (Wild), C (Cultivated). Part Utilized: B (Bark), L (Leaf), La (Latex), Fl (Flower), Fr (Fruit), Rh (Rhizome), Ro (Root), Se (Seed), St (Stem), T (Tuber), and Wp (Whole Plant).

Scientific Name	Local Name	Life Form	W/C	Part Utilized	Medicinal Application
Acanthaceae					
Graptophyllum pictum (L.) Griff	Selantam	Wood	W	L	Fever
Justicia gandarussa Burm.F.	Besi-besi/Sangke simpilet	Wood	W, C	L	Rheumatism, contusion, fever, weakness
Strobilanthes crispa Blume	Pijer keling	Shrub	W	L	Wounds, weakness
Strobilanthes sp.	Paris	Herb	W	L	*Minak, Kuning, Oukup*
Alliaceae					
Allium cepa L.	Pia	Herb	C	T	High cholesterol, *Tawar*
Allium sativum L.	Lasuna	Herb	C	T	Teeth problems, fever, cancer, *Kuning, Tawar*
Allium schoenoprasum L.	Gundera mbelang	Herb	C	Wp	Hookworm
Amaranthaceae					
Alternanthera sp.	Siberani jantan	Herb	W	L	Fever, rheumatism
Amaryllidaceae					
Curculigo latifola Dryander Apiaceae	Singkut	Shrub	W,C	Ro	Eye problems
Centella asiatica (L.)Urb.	Pegaga	Herb	W	L	Abscesses, wounds, bone fractures, blood circulation problem, abscesses
Coriandrum sativum L.	Ketumbar	Herb	W	Fr	Diarrhea, *Oukup*
Araceae					

Acorus calamus L.	Jerango	Herb	W,C	L, Ro	Fever, coughs, *Oukup*
Homalomena sp. Arecaceae	Langge megara	Herb	W	L	Fever
Areca catechu L.	Mayang	Wood	W	Fr, St, Ro	Burns, heartburn, weakness, *Tawar, Minak*
Arenga pinnata (Wurmb) Merr	Pola	Wood	W	Ro, St	Fever, *Tawar*
Calamus diepenhorstii Miq.	Ketang	Liana	W	L, St, Ro	Stomache ache,*Tawar*
Cocos nucifera L.	Tualah	Wood	W,C	Fr,St,Ro	Smallpox, fever, *Tawar, Minak*
Nipa fruticans (Wurmb).Thunb Asclepiadaceae	Nipah	Wood	W	L,St, Ro	Gastritis, *Tawar*
Hoya sp.	Tawar ipoh	Herb	W	L	Weakness, cancer, *Tawar, Minak*
Asplenium sp. Asteraceae	Peldang	Herb	W	L	Bone fractures
Bidens chinensis Willd	Kalesi	Herb	W	L	Burns, blood circulation problem, appetite enhancer, liver,
Artemisia vulgaris Linn	Binara embang	Herb	W	L	Hemorrhoids, dysmenorrheal
Centipeda minima P.	Pecah pinggan	Herb	W	L	Weakness
Chromolaena odorata (L.) R.M. King & H. Rob.	Sipesel	Herb	W	L	Bone fractures, *Tawar*
Crassocephalum crepidioides (Benth.) S. Moore	Sabi-sabi	Herb	W	L	Wounds
Dicrocephala integrifolia (L. f.) Kuntze	Sirahrah	Herb	W	L	Fever
Erigeron sumatrensis Retz.	Ciak-ciak	Herb	W	L	Stomach ache, wounds
Eupatorium odaratum L.	Lenga-lenga	Shrub	W	L	Bladder stones
Lagenophora lanata A. Cunn	Sibelin urat	Herb	W	Wp	Weakness
Spilanthes iabadicensis A.H. Moore	Sibancir	Herb	W	L	Colds, Diabetes
Tithonia diversifolia (Hemsl) A. Gray Balsaminaceae	Pagit-pagit	Shrub	W	L	High cholesterol
Impatiens balsamina L.	Bunga sapa	Herb	W	Fl	Abscesses, *Kuning*
Impatiens platypetala Lindley	Bunga pancur	Herb	W	Fl	*Kuning*
Impatiens sp. Caricaceae	Kiung	Herb	W	Fl	Itches, *Kuning*
Carica papaya L. Costaceae	Bertik	Herb	C	L	Fever, cancer
Costus sp. Cucurbitaceae	Tabar-tabar	Herb	W	L	Weakness
Benincasa hispida (Thunb.) Cogn.	Gundur	Herb	C	Se, Fl	*Tawar, Kuning*
Cucumis sativus L.	Cimen	Herb	C	Se, Fl	*Tawar, Kuning*
Cucurbita moschata	Jambe	Herb	C	Se, Fl	*Tawar, Kuning*

Duchesne					
Dennstaedtiaceae					
Pteridium aquilinum (L.) Kuhn	Ersam	Herb	W	L	Itches
Equisetaceae					
Equisetum ramosissimum Desf.	Sendep-sendep	Herb	W	Wp	Heartburn, *Tawar*
Ericaceae					
Gaultheria leucocarpa Blume	Kalincayo	Wood	W	L	Colds, *Oukup*
Euphorbiaceae					
Aleurites moluccanus (L.)	Kembiri	Wood	W	Fr	Appetite enhancer, abscesses
Bischofia javanica Blume	Cingkam	Wood	W	B	Gastritis
Triadica sp.	Tawan gegeh	Herb	W	St	Weakness, *Minak*
Fabaceae					
Spatholobus ferrugineus (Zoll. & Moritzi) Benth.	Tawan iket manuk	Herb	W	Wp	Rheumatic, muscle pain
Gesneriacea					
Aeschynanthus albidus (Blume) Steud	Kapal-kapal	Herb	W	L	Cancer, *Minak*
Aeschynanthus sumatranus Ohwi	Sigara tundal	Herb	W	L	Fever
Gleicheniaceae					
Gleichenia linearis (Burm. f.) C.B. Clarke	Sumpilpil	Shrub	W	L	Abscesses, fever
Lamiaceae					
Leucas decemdentata (Willd.) Sm.	Silembur kumpa	Herb	W	Wp	Contusion
Mentha spicata L.	Sigarang garang kuda	Herb	W	L	Bad breath, stomach ache
Coleus amboinicus Lour.	Terbangun meratah	Herb	W	L	Headache, sprue
Coleus scutellarioides L.	Terbangun megara	Herb	W	L	Fever, stomach ache, abscesses, constipation
Pogostemon cablin (Blanco) Benth.	Nilam	Shrub	W	L	Wounds, aphrodisiac, cancer
Lauraceae					
Cinnamomum burmanni (Nees & T.Nees) Blume.	Kulit manis	Wood	W	B	Colds, diabetes, *Minak*
Persea americana Mill.	Pokat	Wood	W	L	Back pain, bladder stone
Leguminosae					
Erythrina fusca Lour.	Dapdap	Shrub	W	L	Weakness
Cassia tora L.	Kicik-kicik	Herb	W	Ro	Diarrhea, fever
Mimosa pudica L.	Pedem-pedem	Herb	W	L	Hypertension, bladder stone
Liliaceae					
Cordyline fructicosa (L.) A.Chev.	Kaling juang	Wood	W	L	Fever
Lindsaeaceae					
Odontosaria sp.	Perik kuda	Herb	W	L	*Oukup*
Odontosoria chinensis (L.) J. Sm.	Paku perik	Herb	W	L	Itches, *Oukup*
Lycopodiaceae					
Lycopodium proliferum L.	Terkal	Herb	W	L	Aphrodisiac
Malvaceae					

Hibiscus rosa-sinensis Linn	Rudang-rudang guru	Wood	W,C	L, Fl	Fever, cough
Sida rhombifolia L.	Beras-beras	Wood	W	Fl	Rheumatism, teeth problems
Urena lobata L.	Sampililit	Wood	W	Ro	Colds, abscesses, bone fractures, headache
Melastomaceae					
Medinilla hypericifolia Blume	Surindan kopi	Herb	W	L	Cancer
Melastoma malabathricum L.	Senduduk	Wood	W	Wp	Abscesses, sprue
Meliaceae					
Aglaia odoratissima Blume	Ukat-ukat	Wood	W	L	Hypertension, bladder stone
Toona sureni (Blume) Merr.	Ingul	Wood	W	B	Weakness
Molluginaceae					
Molugo sp.	Rancang	Wood	W	L	Diarrhea
Moraceae					
Artocarpus heterophyllus Lam.	Nangka	Wood	C	Fr	Gastritis
Musaceae					
Musa paradisiaca L.	Galuh	Herb	C	L, St	Stomach ache, fever
Myrtaceae					
Eugenia aromatic O.Berg	Cengkeh	Wood	W	Fl, L	Bad breath, cough, teeth problems, *Minak*
Melaleuca leucadendra (L.) L.	Kayu putih	Wood	W	L	Colds
Psidium guajava L.	Galiman	Wood	C	L	Gastritis, diarrhea
Pandanaceae					
Pandanus amaryllifolius Roxb	Pandan	Shrub	W	L	*Oukup*
Piperaceae					
Piper betle L.	Belo	Shrub	W	L	Burns
Piper nigrum L.	Lada mbiring	Liana	W	Fr	Weakness, appetite enhancer, liver, *Oukup, Kuning, Tawar, Minak*
Plantaginaceae					
Plantago major L.	Patah tulang	Herb	W	L	Diabetes, wounds
Poaceae					
Bambusa sp.	Buluh	Wood	W	Ro, St	Cancer, *Tawar*
Cymbopogon citratus (DC.) Stapf	Sereh	Herb	C	Wp	Appetite enhancer, *Oukup, Minak*
Eleusine indica (L.) Gaertn	Padang teguh	Herb	W	Ro	Heartburn, *Minak*
Imperata cylindrica (L.) Raeusch.	Rih	Herb	W	Ro	Diabetes
Leersia hexandra Swartz.	Sayat-sayat	Herb	W	L	Teeth problems
Saccharum officinarum L.	Tebu gara	Herb	W,C	St	*Minak*
Polygalaceae					
Polygala paniculata L.	Rumput wangi	Herb	W	Ro	Colds, *Oukup*

Polygala sp.	Tongkap merigat	Herb	W	L	Aphrodisiac
Polygonaceae					
Persicaria chinensis (L.)H. Gross.	Siang-siang	Herb	W	L	Stomach ache
Rosaceae					
Prunus acutissima Urb	Kacihe	Wood	W	L	Itches
Rubus reflexus Ker	Kopi-kopi kerangen	Wood	W	L	Diarrhea, hemorrhoids, leprosy
Rubus pyrifolius Hook.f. & Thomson ex Hook.f	Cancang dori	Wood	W	L	Gastritis
Rubiaceae					
Rubia cordifolia L.	Siraprap igung	Wood	W	L	Bladder stones
Uncaria gambir (Hunter) Roxb.	Gamber	Wood	W	L, La	Gastritis, fever, abscesses, coughs, cancer, liver
Rutaceae					
Citrus hystrix DC.	Rimo mungkur	Wood	W,C	L, Fr	Fever, diabetes, *Oukup, Kuning*
Citrus nobilis Lour.	Rimo puraga	Wood	W,C	L, Fr	Fever, bone fractures, *Oukup, Tawar*
Solanaceae					
Capsicum annuum L.	Cina	Shrub	C	Fr	Abscesses
Physalis andiabetesta L.	Depuk-depuk	Herb	W	L	Bone fractures, abscesses, dislocate, hypertension
Nicotiana tabacum L.	Mbako	Wood	C	L	Wounds
Solanum verbascifolium L.	Lancing	Wood	W	L	Dislocate
Sterculiaceae					
Abroma sp.	Cuping-cuping	Wood	W	L	Heart disease
Theaceae					
Camellia sinensis (L.) Kuntze	Teh	Shrub	C	L	Itches
Urticaceae					
Elatostema strigosum Hassk	Sisik naga	Herb	W	L	Fever, weakness
Laportea decumana (Roxb.) Wedd	Lateng	Herb	W	Ro	Itches, muscle pain
Usneaceae					
Usnea barbata Fr.	Nakan angin	Li-chene	W	Wp	Weakness
Verbenaceae					
Vitex trifolia L.	Salagundi	Wood	W	L	Eye problems, cough
Violaceae					
Viola inconspicua Blume	Calung-calung	Herb	W	L	Stomach ache
Vitaceae					
Vitis gracilis BL.	Gagatan harimo	Herb	W	L	Aphrodisiac, stomach ache
Zingiberaceae					
Alpinia sp.	Laja	Herb	C	Rh	Appetite enhancer, diabetes, *Oukup, Kuning*
Alpinia galanga (L.) Willd.	Kelais	Herb	C	Rh	Coughs, weakness, *Oukup*
Boesenbergia pandurata (Roxb.) Schltr	Temu kunci	Herb	C	Rh	Appetite enhancer, *Oukup*

Curcuma domestica Valeton	Kuning gersing	Herb	C	Rh	Gastritis, appetite enhancer, weakness, coughs, diabetes, *Kuning*
Curcuma heyneana Valeton & Zijp	Kuning gajah	Herb	C	Rh	Coughs, wounds, Weakness, *Oukup*
Curcuma xanthorrhiza Roxb.	Temulawak	Herb	C	Rh	Appetite enhancer, diabetes, *Oukup, Kuning*
Nicolaia speciosa Horan	Cekala/Kincung	Herb	C	St, L	Weakness, *Oukup, Tawar*
Hedychium coronarium J.Koenig	Bunga ncole	Herb	W	Fl	Eye problems, *Kuning*
Hedychium cylindricum Ridl	Cekala kabang	Herb	C	L	Colds, cough
Kaempferia galanga L.	Kaciwer	Herb	C	Rh	Liver, diarrhea, stomach ache, appetite enhancer, *Oukup, Kuning, Tawar*
Zingiber sp.	Cekala rih	Herb	C	L	Appetite enhancer, coughs, colds
Zingiber americanus Blume	Lempuyang	Herb	C	Rh	Fever, Weakness, appetite enhancer, *Oukup, Kuning*
Zingiber officinale Blume	Bahing	Herb	C	Rh	Fever, appetite enhancer, *Oukup, Kuning, Tawar, Minak*
Zingiber purpureum Roscoe	Bungle	Herb	C	Rh	Appetite enhancer, *Oukup*
Zingiber sp.	Alia	Herb	C	Rh	Gastritis

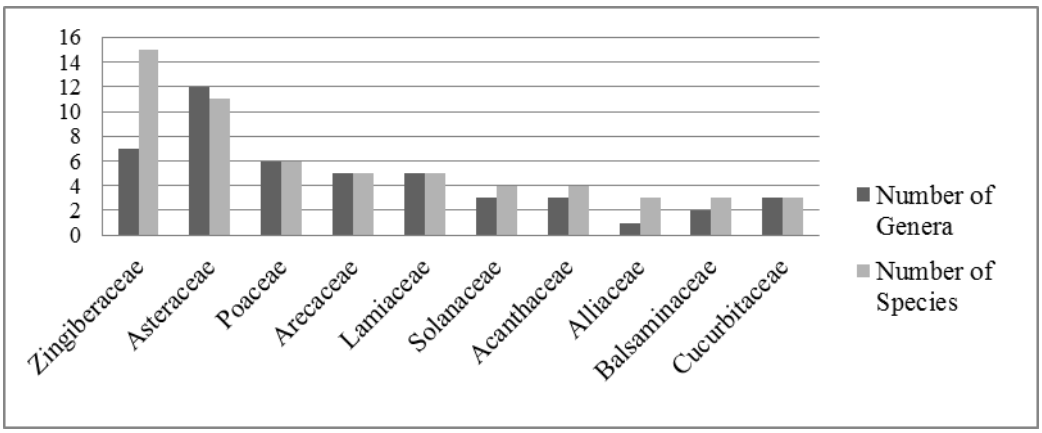
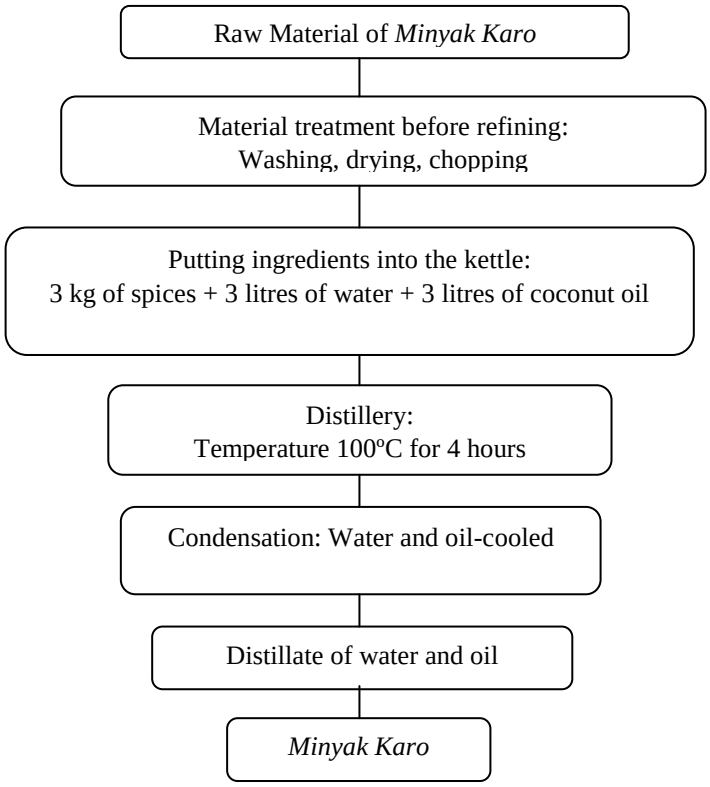


Figure 2. The most important medicinal plant of *Minyak Karo*

Table 2. Plant Parts Used in Traditional Medicine of *Minyak Karo*

Plant Part	Number of Uses	
	Frequency	Percentage
Leaf	74	51
Root	14	10
Rhizome	11	8
Flower	10	7
Stem	10	7
Fruit	9	6
Whole plants	8	6
Bark	3	2
Seed	3	2
Tuber	2	1
Latex	1	1
Total	145	100%

Karo people gathered medical plants from nearby forests, fields, home gardens or purchased them from local vendors. The forests were spread over Mount Sinabung, Simpang Empat, Namanteran, Tiganderket, Payung, Laubaleng and Mardingding Districts, Bukit Barisan Mountain, Merek, and Forest Conservation Park in the Districts of Berastagi and Dolatrayat. The knowledge of traditional medicine among Karo people had been passed from generation to generation. These traditional medicines were widely known as "Karo medicines" which were easily found at traditional markets in Karo Regency and neighbouring areas. The raw materials for the medicines such as leaves, stems, roots and dried fruits were also available at the traditional markets in Kabanjahe and other markets in Berastagi and Tigapanah, North Sumatra, Indonesia. Below was the process of making *Minyak Karo*:



Nature raw materials used consisted of more than 57 types of *Minyak Karo* spices. Before being refined, the 57 spices were first washed from the sticky dirt, dried, and chopped into small pieces. *Minyak Karo* distillation was done using the steaming technique (indirect distillation). The kettle used was made of stainless steel. Spices that had been chopped as much as 3 kg were put into a kettle filled with 3 liters of water and 3 liters of coconut oil. Then the boiler was tightly closed, the combustion process was carried out for 4 hours at a temperature of 100ºC which produces hot water vapour and *Minyak Karo* At that time, the water vapour would flow between the particles carrying the oil. This steam would collect in the boiler cover which was shaped like a goose-neck and flows into the cooling boiler (condenser) through a pipe, where it turned into a liquid. Under the cooling boiler was connected a small pipe that would drain the distilled oil which was accommodated into a holding container.

Ritual Process of Making *Minyak Karo* in Padang Bulan and Pancur Batu, North Sumatra

The Karo ethnic was one of the ethnic groups that still adhered to the traditional Karo belief (Pemena) before the entry of religion into the land of Karo. The manifestation of this belief was that the Karo ethnic still performed rituals that were carried out with various objectives to be achieved, one of which was the ritual of making *Minyak Karo*. The ritual of making *Minyak Karo* was the same as other rituals which also have a procession and implementation and ritual supporting objects. The ritual process of making *Minyak Karo* in Padang Bulan and Pancur batu regions was that after all the equipment and materials had been prepared, each family member took their share. Ingredients such as *kaffir lime/kaffir lime leaves, ship-board leaves, jambar api, bulung patchouli, gagaten tiger* and *basil* were sliced using *a pepper knife.* Ingredients such as hundred spices, *panglai, shallots, garlic, pepper, nutmeg, turmeric* and *areca nut* were ground until smooth. Materials such as *tawan gegeh, root areca nut, bamboo root, riman root, pengkih root* and *alang-alang* were pounded until they broke. After all, the ingredients were put together in one container, *Minyak Karo* was ready to be cooked. *Belau cawir* and *Perak* were prepared and when *Minyak Karo* started to cook, incantations would be said to invite the spirits of the ancestors. The content of the chant were:

"Okam nini sierkuasa
Berekenndulah gegeh ras kesehaten
Ibas kami makeken minak enda
Ras pedauh kam kerina
Kuasa-kuasa jahat ras kerina pinakit
Silit ibas daging kula kami
Endam pemindon kami nini
Gelah sura-sura kami tersehi.
Bujur…"

The meaning of the chant was:
Oh powerful Nini
Give us strength and health
In using this massage oil

And keep us all away
From evil spirits and all diseases
What's in our bodies
This is our request
May our intentions come true
Amen…

In addition, the ideology of *Minyak Karo* is reflected in Karonese mothers who had babies. Karonese mothers were more accustomed to oiling their babies and children with *Minyak Karo* than telon oil/baby oil because it was considered superior in properties. This oil could strengthen the baby's bones and muscles so that they would grow healthy, agile, strong and would walk quickly.

The Function of Ritual Preparation in *Minyak Karo* in Padang Bulan and Pancur Batu, North Sumatra

People throughout the Karo believed in the presence of supreme powers, Gods and their cognates, who controlled all aspects of human life. Other occult powers exist; these were the powers of supernatural beings, those of the spirits. They also influenced human beings and affected their health, causing disease, infirmity, and death. They possessed individuals or influenced them from afar. When they were provoked, they did harm through the machination of a *faqir*, a holy man, or a magic-monger, using these spirits as *jinns* subject to their command.

Karo tribe believed that the nature and the environment functioning was not only for a human being to live but also for other God's creators including souls which were not eye-catching but believed only or mind-cached. The ritual of making *Minyak Karo* could only be carried out by people who had been selected to have the tools needed to perform the ritual, such as *silver knives* and *pepper blades*. They were assisted by their respective family members in preparing the materials needed to make *Minyak Karo.* The procession of the ritual was managed and scheduled by *si Baso.* Whilst the procession, first, *si Baso* moved Nini Karo to the former place, having dancing together with the followers, then shampooing their hair (erpangir), it was always done in the river or made pool.

The Karo ethnicity was one of the ethnic groups who still often perform rituals aimed at communicating with supernatural spirits and in carrying out these rituals there were conditions that must be met, for example in the ritual of making *Minyak Karo.* The Karo people believed that disease could not only be caused by factors that could be accepted by the human mind, such as diseases in general, in addition to diseases that we could know the cause, it turned out that there were also diseases that did not know their origins and what causes them. It was a disease caused by supernatural beings or caused by people who deliberately sent disease through supernatural means. Thus, the sociological to make a ritual of *Minyak Karo* by Karo ethnicity was to cure diseases that were believed to come from supernatural spirits or diseases sent by people through supernatural means and asked for protection from the spirits of the ancestors.

Discussions

Most of the Karonese respondents were familiar with the plant's species which used to treat common diseases such as fever, weakness, cold, cough and stomach ache. They considered that traditional medicines were important for health care because they had no side effects on the human body.

Indigenous people believed in two types of diseases: naturalistic (diseases caused by nature) and personalistic (a disease caused by the supernatural) (Foster 1976; Florey & Wolff, 1998). Karonese people were no exception to this case. For Karonese, naturalistic diseases were called *bangger* and personalistic was *kelangen*. *Bangger* were those caused by the malfunctioning of the human body such as cold, fever and stomach ache and *kelangen* were caused by supernatural powers such as evil spirit (*begu, kena si mentas-mentas*), bad people (*tama-tama*) and curse. *Kengalen* was treated with a special ritual conducted by traditional healers. Meanwhile, *bangger* uses various plants species. Most of the remedies were prepared using fresh plant material. They had some concoctions to treat common diseases or maintain healthcare of the human body: *minak, kuning, tawarand oukup*. *Minak* was traditional oil that can be used to treat weakness problems, dislocate, bone fractures, dislocate, wounds, burns and cuts. *Kuning* was used to warm the body especially for children and after sickness. *Tawar* was used to treat common colds, warm bodies and as an appetite enhancer. *Oukup* was steam baths which usually for health care and treat women after childbirth. Though Karonese people often used mixtures of a variety of plants for many treatments, they used single plant species for some treatments. For example, *Crassocephalum crepidioides* - leaf paste was used to treat small cuts and wounds; *Hedychium coronarium* – the trapped water from its crown was dropped to treat irritated eyes; *Psidium guajava* – boiled leaves was used to treat diarrhea; *Gaultheria leucocarpa* – leaves were chewed to treat the common cold.

5. Conclusion and Suggestion

Conclusion

Based on the result of data analysis and findings, the writer drew some conclusions:

1. Based on the medicinal plants of *Minyak Karo*, there were 107 genera and 57 families to treat different diseases. There were 10 general species of medical plants in making *Minyak Karo* such as *zingiberaceae* (15 species of plants), *astreaceae* (11 species of plants), *poaceae* (6 species of plants), *arecaeae* (5 species of plants), *lamiaceae* (5 species of plants), *solanaceae* (4 species of plants), *acanthaceae* (4 species of plants), *alliaceae* (3 species of plants), *balsaminaceae* (3 species of plants), and *cucurbitaceae* (3 species of plants). The fifth plant parts used in *Minyak Karo* were leaf (51%), root (10%), rhizome (8%), flower (7%), and stem (7%). All of these plants had already proved to treat illness, such as fever, weakness, cold, abscesses, cough, stomachache, and many more.

2. Based on the research of the ritual of making *Minyak Karo* in Padang Bulan and Pancur Batu, North Sumatra, *Minyak Karo* had the content of chant to invite the spirits of the ancestors. Furthermore, the ideological of *Minyak Karo* reflected in Karonese mothers who had babies. Karonese mothers were more accustomed to oiling their babies and children with *Minyak Karo* than telon oil/baby oil because it could strengthen the baby's bones and muscles.
3. Based on research on the ritual of making *Minyak Karo,* people who could perform the ritual of making *Minyak Karo* were one of the descendants chosen by their ancestors and the chosen person had already given instructions, such as by dreaming when someone slept. People who were chosen could not refuse because if they refused, their families would get a disaster and not be protected again by the spirits grandmother ancestors them.
4. The purpose of the ritual of making *Minyak Karo* in Padang Bulan and Pancur Batu, North Sumatra was to be able to cure diseases that were believed to come from supernatural spirits or diseases sent by people through supernatural means and asked for protection from the spirits of the ancestors.

Suggestion

The writer suggested the knowledge of traditional medicine and cultural meaning in anthropolinguistic was a wealth of its own for a tribe. Therefore, it was necessary to explore or research more deeply about the knowledge of Karo traditional medicine and document it in the form of print media so that this knowledge was not slowly eroded and lost from the community, this could be done by individuals or in collaboration with the government. This was the task of the relevant government agencies such as the local Health Office to provide easier training and licensing. They could serve communities by providing vital information on scientific plant identification and broad-scale anthropolinguistic knowledge, and by forging creative linkages to other communities with similar needs and goals of preserving and perpetuating cultural knowledge of plants and environments. They could participate in developing school and college curricula, audiovisual productions, science and cultural camp activities, museum exhibits, and locally relevant plant guides.

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