

# The Source Traditional Medication Knowledge on the Dayak Iban in Lanjak Deras Village, Indonesia

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# The Source Traditional Medication Knowledge on the Dayak Iban in Lanjak Deras Village, Indonesia

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Article info	ABSTRACT
<b>Article history:</b> Received Revised Accepted	<i>West Kalimantan consists of 151 sub-ethnics. One of them is the Iban found in Lanjak Deras Village, Batang Lupar District, Kapuas Hulu Regency, Indonesia. The Iban has such a long history regarding their insight into traditional medicine to deal with health problems experienced by local people. However, their knowledge of traditional medication has not been well documented. Therefore, knowledge of traditional medication is considered very important to be documented as an effort to preserve cultural heritage. This study aimed to analyze the source of traditional medication knowledge in the Iban. The method used in this study was survey techniques. The data were obtained through semi-structured interviews. Descriptive qualitative was used to analyze the data. The result showed that the sources of the Ibans knowledge for traditional medication were derived from: family (100%), customary leader (100%), shaman (100%), experience (75%), experiment (75%), dreams (50%), verbally (100%), be informed (100%) and ask a question (100%). This shows that the dayak Iban tribe people get traditional medical knowledge from various sources.</i>
<b>Keywords:</b> Analysis, medicine, traditional, dayak, iban	

## INTRODUCTION

Kalimantan is inhabited by several ethnic groups, one of them is Dayak (Riwut, 2007). Dayak is a term for the native inhabitants of the island of Borneo (Permatasari, 2014). The Dayak ethnics are divided into sub-tribes with a total of 405 sub-tribes (Lontaan, 1975), one of them is a sub-ethnic of Iban. The Iban is a native tribe in the borders of Sarawak and West Kalimantan (Ariani *et al.*, 2008; Eilenberg & Wadley, 2009; Permatasari, 2014). The Ibans are spread across the West Kalimantan border, one of them in Lanjak Deras Village, Batang Lupar District, Kapuas Hulu Regency. The Iban tribe still adapts well to the surrounding natural environment, in terms of utilizing forest products based on local wisdom or traditional wisdom in their daily life.

Local wisdom is the basic knowledge gained from living in balance with nature, human daily life, trust, culture and moral values (Mungmachon, 2012; Widisono, 2019; Dewi *et al.*, 2020). Local wisdom is also known as local knowledge or local genius which is being the basis of cultural identity (Kartawinata, 2011; Pompimon *et al.*, 2014) and used as the basis to manage their environment (Humaida *et al.*, 2018). The practice of local wisdom regarding the use of the surrounding natural environment has been carried out for a long time by the Iban tribe. Traditional communities have collected a wealth of local knowledge, transmitted from generation to generation (Damayanti *et al.*, 2013; Tamalene *et al.*, 2016; Supiandi *et al.*, 2019; Supiandi & Leliavia, 2019). One of the local knowledge delivered from generation to generation in the Iban tribe is the knowledge of traditional medicine by utilizing plants.

Knowledge in utilizing medicinal plants is a national cultural heritage based on knowledge and experience inherited from generation to generation so as to create various medicinal herbs which are the characteristic of traditional medicine (Jhonhref, 2007). Traditional medicine is all other ways of health treatment outside medical science which is based on knowledge, beliefs, and experiences in certain traditions (Che *et al.*, 2017). The use of traditional medicine in general is considered safer than the use of modern medicine. This is because traditional medicines have relatively fewer side effects than modern medicines (Sari, 2006; Lestari & Susanti, 2020). WHO recommends the use of traditional medicines including in treating public health, preventing and healing diseases, especially for chronic diseases, degenerative diseases and cancer. WHO also supports efforts in increasing the safety and efficacy of traditional medicines (WHO, 2003). In accordance with the recommendation by WHO, the Dayak Iban tribe also uses plants as traditional medicines.

Based on the observations made, information was obtained about the use of plants as traditional medicines to treat internal and external diseases. Treatment of internal diseases using plants *Kaempferia galangal* (encekur), *Orthosiphon aristatus* (blume) miq (kumis kucing), *Curcuma longa* L (kunyit), and *Piper betle* L. (sireh). As for the treatment of external diseases using plants such as *Alpinia galangal* (engkuas), *Manihot esculenta* Crantz (jabang) and *Plectranthus scutellarioides* (L.) R. Br. (mata tiung). Based on research conducted by Supiandi & Leliavia (2019), it is reported that the treatment of internal diseases by boiling and drinking. While the treatment of external diseases by pounding and smearing.

The Iban use plants as traditional medicines due to the abundant availability of plants in the forest. On the other hand, the use of plants as traditional medicine can not be separated from the correlation with local culture or beliefs (Rahayu *et al.*, 2006). The relationship between humans and their environment is determined by local culture as knowledge that is believed to be the source of naturally formed customs value systems (Rosyadi, 2014). The knowledge system that is traditionally owned by community is one part of indigenous ethnic culture of the local people (Son *et al.*, 2019).

Knowledge of traditional medicine in the Iban community is currently experiencing a threat towards extinction because of several things, they are: (1) Such knowledge is still delivered verbally, (2) it has not been well-documented, (3) parents who have knowledge of traditional medicine are increasingly reduced, (4) the influence of foreign cultures that have begun to enter the local community, (5) the influence of technological progress. The loss of traditional knowledge could be an effect of limited transmission of this knowledge by elders (Gómez-Baggethun *et al.*, 2010). Therefore, the analysis of the source of knowledge of traditional medicine in the Iban community has become increasingly important in determining strategies and actions for the preservation of local wisdom in the Iban. This study is different from previous research in terms of local people's knowledge, types of plants used, processing methods and types of diseases that can be cured. This study aimed to analyze the source of traditional medication knowledge in the Iban people.

## 1 MATERIALS AND METHODS

### Research Design

This study uses a qualitative approach with survey techniques. A qualitative approach is used because the data collected is descriptive data in the oral words from the Ibans. The survey technique is used to obtain an overview of the phenomena that occur and develop naturally in the Iban. It means that the research variable can not be manipulated by the researcher.

### Respondent

Respondent were determined by purposive sampling technique. Respondent this research was obtained from the Iban who had knowledge of traditional medicine, such as: customary leader, prominent figure of customary, the village elders, and shamans. The respondent details can be found in Table I.

**Table I.** Respondent characteristics

No	Respondent characteristics	Occupation	Total
1	Customary leader	Farmer	1
2	Prominent figure of customary	Farmer	1
3	Village elders	Farmer	1
4	Shamans	Farmer	1
<b>Total</b>			4

### Research Instrument

Research data was obtained through semi-structured interviews. Semi-structured interviews using questionnaire sheets created by researchers with the aim to collect information from the Dayak Iban people. A list of questions is presented in Table 2.

**Table 2.** List of interview questions

Question code	Questions	Answer choices
Q1	How did you find out information on the use of plants as traditional medicine?	Answers may be more than one: 1. Customary leader 2. Prominent figure of customary 3. Village elders 4. Shamans 5. Family

		6. Experience 7. Experiment 8. Dreams
Q2	How do you get information on the use of plants as traditional medicine?	Answers may be more than one: 1. Verbally/Orally 2. Article
Q3	What are the verbal methods to obtain information on the use of plants as traditional medicine?	Answers may be more than one: 1. Be informed 2. Ask a question

### Research Procedure

The procedures performed in collecting research data include: (1) make an interview sheet; (2) determine research respondents consisting of customary leader, prominent figure of customary, the village elders, and shamans; (3) determine the interview time with the respondent (may 2019 in the village of Lanjak Deras); (4) conduct interviews with respondents through semi-structured interview techniques; (5) documentation during the interview with the informant.

### Data Analysis

Data analysis in this study uses descriptive qualitative technical analysis. The stages of qualitative descriptive techniques include: (1) collecting data: researchers conducted interviews with respondents (Dayak Iban people) who had been determined by asking several questions; (2) data reduction: at this stage the researcher selects the data that has been obtained to answer the predetermined research objectives; (3) data presentation: data on traditional knowledge sources are presented in tables; (4) researchers make conclusions (Supiandi, *et al.*, 2019).

### RESULTS

Based on the results of interviews with the Ibans, the sources of knowledge of traditional medicine were obtained through: (1) family 100%, (2) customary leader 100%, (3) shamans 100%, (4) experience 75%, (5) experiments 75%, (6) dreams 50%. As for ways to get information verbally (be informed and ask a question) 100%. In detail the explanation is as follows (Table 3).

Table 3. List of respondent knowledge sources

Question code	Interview result	Total respondent	Percentage	Category
Q1	Family	4	100%	Very high
	Customary leader	4	100%	Very high
	Shamans	4	100%	Very high
	Experience	3	75%	High
	Experiments	3	75%	High
	Dreams	2	50%	Moderate
Q2	Verbally/Orally	4	100%	Very high
Q3	Be informed	4	100%	Very high
	Ask a question	4	100%	Very high

The interview results show that in obtaining sources and ways to obtain information about the use of plants as traditional medicine in the Dayak Iban tribe through various ways. The first ways is obtained from customary leader, shamans, family (4 respondent), experience and experiment (3 respondent), dreams (2 respondent), verbally, be informed, and ask a question (4 respondent). Information relating to the responses of each respondent is presented in the Table 4.

Table 4. List of respondent response

Question code	Answer choices	Respondent response				Total
		I	2	3	4	
		Yes		No		
Q1	Customary leader	√	√	√	√	4
	Prominent figure of customary	-	-	-	-	0
	Village elders	-	-	-	-	0

	Shamans	√	√	√	√	4
	Family	√	√	√	√	4
	Experience	√	√	-	√	3
	Experiment	√	√	-	√	3
	Dreams	√	-	-	√	2
Q1	Verbally	√	√	√	√	4
	Article	-	-	-	-	0
Q3	Be informed	√	√	√	√	4
	Ask a question	√	√	√	√	4

The following describes the data related to the narrative from interviews with informants about the sources of traditional medicine knowledge in the Dayak Iban tribe: the first question is about how the respondent knows the use of plants as traditional medicine. The first and fourth respondents answered that the way to obtain knowledge on the use of plants as medicine was through customary leader, shamans, family, experience, experiment and dream. The second respondent answered that information was obtained through customary leader, shamans, family, experience, and experiment. While the third respondent obtained information from customary leader, shamans, and family. The second question is about how the respondent gets information about the use of plants as traditional medicine. Answers from 4 respondents stated that the information was obtained orally. The third question is about how to use oral methods to obtain information on the use of plants as traditional medicine. The answers from 4 respondents stated that the oral method obtained through asking and being told by people understood traditional medicine.

## DISCUSSION

Knowledge sources about traditional medicine of the Ibans are obtained from the family (100%). Family is the best place to pass on traditional medical knowledge. Families convey this knowledge from generation to generation with the aim of continuing the traditional knowledge and maintaining its sustainability. In general, knowledge of traditional medicine is transferred to the right person with the aim of the knowledge being useful in the future. Person who transfers knowledge tends to choose the closest family member as a substitute to continue the knowledge of traditional medicine because there is a strong inner bond and is believed to have the ability to master the skills and knowledge possessed by the predecessor. The predecessor and successor must ensure that the knowledge transfer process goes well so that all knowledge possessed by the predecessor can be fully transferred. The process of transferring the knowledge given by the predecessor to the successor should be given in stages and have the right steps so that the successor can absorb and implement that knowledge in daily life to treat disease. Julung *et al.*, (2018) said that the Dayak Desa community also inherited local knowledge about traditional medicine from generation to generation by believing that not all diseases could be cured medically. Lozada *et al.*, (2006) commonly, knowledge is transmitted vertically within a family, and it is also learned through practice.

The source of knowledge of the Ibans regarding traditional medicine by utilizing plants is obtained from customary leader (100%) through verbal communication from generation to generation. Julung *et al.*, (2018) reported that traditional knowledge about medicinal plants, how to use them, and what parts of the plant were used were informed by the customary leader and the village elders. Hossan *et al.*, (2010) and Gruyal *et al.*, (2014) stated that information and knowledge of the community regarding the use of medicinal plant was handed down from generation to generation through verbal communication. Ducusin (2017) also said that knowledge of medicinal plants was inherited from ancestors through oral traditions.

The customary leader transfers knowledge of traditional medicine through verbal communication due to the fact that indigenous knowledge is usually only kept in one's mind given from generation to generation. The transfer of traditional medicine knowledge from Iban leaders to certain people always begins with traditional ceremonies by preparing various requirements such as salt, rice, chicken, coins and iron. The purpose of the ceremony is to make the knowledge transferred can be received and used properly and correctly. The results of this study are in line with the statement of Sithole (2007) and Supiandi *et al.*, (2019) which states that most of the original knowledge is stored in one's mind and handed down from generations by mouth-to-mouth.

The source of medical knowledge of the Ibans was obtained from the shaman (100%). In the Iban community, shaman is considered as a person who has a lot of knowledge, understanding and skills in curing diseases by using plants. Shamans has authority and responsibility in society and are chosen and trusted by people that is able to carry out all gifts from the Creator and ancestors. The process of transferring traditional

medical knowledge by shaman to certain person who is considered appropriate is through traditional rituals by reciting mantras. Customary rituals are carried out with the aim of: (1) asking for blessings of the Creator of the universe and the ancestors, (2) asking for blessings so that the transfer of knowledge can be absorbed by those who receive, (3) asking for blessings so that the knowledge received is used properly and correctly.

The source of medical knowledge of the Ibans is derived from experience and experiments (75%). This source of knowledge is obtained from people's experiences both written and unwritten in utilizing plants as traditional medicines from generation to generation. This research is in line with the results of a study conducted by Merdekawati (2016) and Julung *et al.*, (2018). They reported that knowledge and the use of traditional medicines were obtained from personal experience, experiments and carried out from generation to generation. Ghorbani (2005) The knowledge on the use of medicinal plants was acquired by trial and error and handed on from generation to generation.

The source of medical knowledge of the Ibans is obtained from dreams (50%). Certain people usually gain knowledge about traditional medicine through dreams given by ancestors. The messages conveyed through dreams are usually related to the name of the plant used, the part of the plant used, how to use it, the location of the plant found, and the ritual before using the plant. Person who gets dreams from their ancestors is generally person who is considered capable of carrying out their duties and responsibilities. The results of this study are in line with the results of a study conducted by Molina (2015) who reported that traditional knowledge about medicinal plants was obtained through hunches and dreams. Furthermore, Julung *et al.*, (2018) reported that the information and knowledge about certain plant that is usefull for medicine, about its processes and plant parts used were obtained from the ancestors and gods through dreams.

The dayak Iban people obtain information about traditional medicine verbally (100%) through asking and being directly informed by elders who have an understanding and have done traditional treatment. The method is done with the aim to pass on the knowledge possessed to the next generation so that it non-extinct and continue to develop. This is in line with what was conveyed by Gaddy (2020) that traditional knowledge is knowledge that is already possessed by people in a particular community from time to time and continue to develop.

## CONCLUSIONS

The sources of traditional knowledge in the dayak Iban tribe are obtained in various ways and have not been well recorded by the current generation. These ways consist of family (100%), customary leader (100%), shaman (100%), experience (75%), experiment (75%), dreams (50%), verbally (100%), be informed (100%) and ask a question (100%). The results of this study have implications for the use of forest plants as traditional medicine. Traditional knowledge needs to be recorded and documented for the purpose of cultural preservation.

## ACKNOWLEDGEMENTS

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