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Dr. Revis Asra, M.Si

<revisasra@unja.ac.id>

to Nor, Ahmad

Dear Editor,

Thank you very much for your respond.

We are waiting for further information.

Very best regards,

Revis A

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Smujo Editors
editors@smujo.id



Dr. Revis Asra, M.Si <revisasra@unja.ac.id>
to Smujo, MARINA

Dear Editor,

Thanks a lot.

Very best regards
Revis Asra

Reply

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Participants [Edit](#)

Nor Liza (nliza)

Revis Asra (revis_2301)

Messages

Note	From
Dear Section editor	revis_2301
I will repair this manuscript.	2020-06-05
Thank you very much.	11:18 AM
Best regard,	
Revis Asra	

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Edited Paper



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- Smujo Editors (editors)
- Nor Liza (nliza)
- DEWI NUR PRATIWI (dewinurpratiwi)
- Revis Asra (revis_2301)

Messages

Note	From
<div>Dear Editor,</div> <div>Thank you for the review that has been done in our paper.</div> <div>We have fixed the paper according to the advice of the editor and reviewer.</div> <div>Thank you for your cooperation.</div> <div>Very best regards,</div> <div>Dr. Revis Asra</div> <div> revis_2301, BIODIVERSITAS Revis Asra (UNJA).docx</div>	<div>revis_2301</div> <div>2020-06-20</div> <div>12:51 PM</div>
<div>Thank you</div>	<div>nliza</div> <div>2020-06-29</div> <div>01:17 AM</div>

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Revised paper



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- Nor Liza (nliza)
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Dear Author(s),

Kindly send to us your revised paper.

editors
2020-07-30
01:38 PM

▶ Dear Editor,

I am sorry, I have submmitted revised paper at round 1.

This is my revised paper.

Thank you very much for the cooperation.

Very best regards,

Dr. Revis Asra

revis_2301
2020-08-12
03:58 AM

[revis_2301, A-6028-Article Text-25162-1-4-20200629.doc](#)

▶ Dear Editor,

I have submmitted revised paper at round 2.

I would like to add co author :

revis_2301
2020-09-08
01:03 AM

Tsu Andry Eiridivanto2


Uncorrected proof



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- Smujo Editors (editors)
- Joko Ridho Witono (jwitono)
- DEWI NUR PRATIWI (dewinurpratiwi)
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<p>Dear Author(s),</p> <p>Pls, find attached file for an uncorrected proof (Copyedited file).</p> <p>The revised manuscript is awaited. Do not worry about layout changes due to revision; our staff will fix it again.</p> <p>Note: Kindly use track change when you make improvements.</p> <p> dewinurpratiwi, Besale-Revis Asra.doc</p>	<p>dewinurpratiwi</p> <p>2020-09-08</p> <p>11:09 AM</p>

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Revis Asra (revis_2301)

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[biodiv] Editor Decision

2020-09-09 07:36 AM

REVIS ASRA, MARINA SILALAH, IZU ANDRY FIJRIDIYANTO:

The editing of your submission, "The practice and plants used in Besale ritual healing by the Anak Dalam Tribe in Nyogan Village, Jambi, Indonesia," is complete. We are now sending it to production.

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REVIS ASRA, MARINA SILALAH, IZU ANDRY FIJRIDIYANTO:

We have reached a decision regarding your submission to Biodivers

Our decision is to: Accept Submission

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REVIS ASRA, MARINA SILALAH, IZU ANDRY FIJRIDIYANTO:

The editing of your submission, "The practice and plants used in Be:

Submission URL: <https://smujo.id/biodiv/authorDashboard/submissi>

Diversity of plants in the Besale rituals healing of the Anak Dalam Tribe in the Nyogan Village, Jambi Province, Indonesia

Comment [JARN1]: After reading the text, the title given to the article does not seem to me valid since it privileges the description of the ritualistic healing practice and makes a slight mention of the plants used in it. To do so I suggest changing the title to qlgo as:
The ritualistic practice of healing in Besale rituals practiced by the Anak Dalam Tribe in Nyogan Village, Jambi Province, Indonesia through the use of plants"

Comment [JARN2]: The sample universe is extremely small. Therefore, justify in previous studies the reason for this small number.

Comment [JARN3]: As this is an ethnic study, I believe it is necessary to attach an ethics committee for research on human beings, as well as to provide in the text the acceptance number and the institution that approved it.

Comment [JARN4]: In this excerpt the author expands his approach in a general way to all tribes and traditional populations, however his study focuses on a special group of individuals, therefore, it is necessary to value knowledge locally before expanding it. If what the author seeks is to value traditional ethnobotanical knowledge, he should value it above all to that group with which the tradition is being maintained

Abstract. The Anak Dalam Tribe is an indigenous ethnic which is habited at center Sumatra Island, especially in Jambi and South Sumatra Provinces, Indonesia. This ethnicity still maintains the rituals in the traditional healing. This study aims to analyze the diversity of plants have been used by Anak Dalam Tribe to the Besale ritual healing in Nyogan Village, Jambi Province, Indonesia. This study interviewed to 6 key informants and participatory observations. The data analysis is qualitative with the statistical descriptive. The Basale ritual healing is the healing ceremonial that combines ritual and treatment simultaneously for the people which is carried out on severe diseases. A total 21 species belonging 12 families of plant have been used in the Besale ritual healing. The most widely used plant parts are flowers (34,61%). The plants in the Basale ritual healing being burned, smoked, hung and eaten directly.

Keyword: Besale, conservation, ethnobotany, Jambi

INTRODUCTION

Indonesia has ethnic groups which inhabited at regions that vary ecosystem and cultures. The cultural diversity is reflected in traditional ceremonies, which is maintained for generations. In varies of communities, the traditional ceremonies carried out must be in accordance with those passed down by the ancestors and they assume that if is not appropriate they can get the fee. In general, new traditional ceremonies will be held if it is really needed. The Utilization of plants in traditional ceremonies continues to this day. For example in India there is a Mising religious and supernatural belief ceremony in Misam, they used 30 species of plants from 23 families (Sharma and Pagu, 2011). In Indonesian especially in Sumatra there is a traditional ceremony by the people of Kanagarian Sontang Cubadak Padang, Gelugur Subdistrict, Pasaman District, West Sumatra with 30 species of plants from 19 families and Kenduri sko traditional ceremony in several districts in Kerinci District, Jambi, found 37 species of plants in 22 families (Des et al. 2019; Suwita 2013). Wakhidah et al. (2017) said that the ut ilization of plants in traditional ceremonies can produce a culture of sustainable plant resource management.

One of the traditional ceremonies that is still maintained until today is the Besale ritual healing by the Anak Dalam Tribe (Orang Rimba). The Anak Dalam Tribe (ADT) is a the tribes who still upholds the beliefs of their ancestors. Administratively, these tribe inhabit in the South Sumatra and Jambi Provinces, whereas their majority in Jambi Province (Ibrahim 2013). Takiddin (2014) that the customs and habits of the Anak Dalam Tribe are different from the Malays, so the primitive assumption is still inherent today.

The Besale ritual healing is a ritual of treatment and marriage by summoning the gods from their previous ancestors (Ibrahim 2013), which to heal who is sick and disastrous by evil spirits. The Besale ritual healing used plants especially the flowers, which taken from the forest. The types of flowers used for wedding ceremonies are different from the flowers used for those ritual (Takiddin 2014). Sharma and Pegu (2011) says that the use of herbs is very wide, including to worship gods and goddesses in order to protect and improve human life. The utilization of plants for traditional ritual indirectly has to biodiversity conservation (Liu et al. 2002; Gam & Nat 2012). Over exploitation can of some species plants can make them be extinction (Ouziki and Taiqui 2016)

The documentation of using the plant and local knowledge by the indogenous ethnic is ethnobotany study. The ethnobotany is a bridges of traditional to modern and being growing topic by scientist (Aulana 2015), its describes and explains the link of the culture and using of plants. The ethnobotany study have carried out, which stated that the local knowledge or wisdom of the utilization of plants could be maintained and utilized by all communities for further interest (Syafitri et al. 2014; Efremila et al. 2015). Ethnobotany study is important in terms of biodiversity conservation, especially medicinal and aromatic plants. This can preserve the indigenous customs, culture and knowledge from each population through the documentation from their ancestors (Cakilcioglu & Turkoglu 2010, Heywood 2011). This study aims to analyze the diversity of plants have been by Anak Dalam Tribe to the Besale ritual healing in Nyogan Village, Jambi Province, Indonesia.

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MATERIAL AND METHODS

Study area
The study conducted at the Anak Dalam Tribe (ADT) in the Nyogan Village, Jambi Province, Indonesia. on November – Desember 2019.

Interview and data collection

The survey used semi-structured interviews and observation partisipatory (Martin 1995; Cotton 1996). The informants determined by purposive sampling, namely traditional healers who had performed basale healing. The interview covers the stages of *Besale* ritual, types of plants, ways of utilization and acquisition sources. Determination of informants also refers to Silalahi (2016) which states that in determining the criteria for informants who need note several things namely informants who have long and intensively integrated with activities of the researcher's attention; who is still involved intensively integrated with activities or activities that are the target of the researcher's attention; have enough time or opportunity to information requested. Data collected includes: local names, parts used and benefits of the plants whic used to Basale ritual healing. The plant collected is made voucher specimen and stored in the Biology Departement of Jambi University. The plant identification was carried out at Andalas Herbarium, Andalas University, Padang.

Data analysis

Data were analyzed quaitatively using descriptive statistics. Descriptive statistics was conducted to obtain the most widely used plants species and families, also conservation behavior of *Besale* ritual healing at Nyogan Village, Jambi Province.

RESULT AND DISCUSSION

The Anak Dalam tribe is the one of the unique tribes in Indonesia. This tribe is included in the category of minority tribes included in the remote indigenous communities in Indonesian (Effendi and Eko 2020). The Anak Dalam Tribe in the Nyogan Village a people who comes from South Sumatra (personal communication 2018). Initially the community lived on a raft and always moved along the river depending on available resources. A corporate social responsibility of the oil palm plantation companies in the area makes a home for them, so they start living on land.

Besale ritual healing

The Anak Dalam Tribe (ADT) has the local wisdom in healing a serious illness that cannot be cured medically is called *Besale* in this research is called the *Besale* ritual healing. The *Besale* ritual healing is the lasiest alternative healing for ADT and it is carried out when medical treatment cannot be cured. A disease caused by a type of magic the most disease treated by using *Besale* ritual healings. That community believe that the disease is a disaster given by the Gods. This *Besale* ritual healings is a form of community's plea for God to be kept away from the disaster. Mariana et al. (2015) said that supra natural disease is a disease caused by supra natural spirit, karma and bad attitude from someone, for example hungry edema. Hungry edema is believed by the Simalungan Datak sub-ethnic tribe of North Sumatra as a result of stealing. Not all diseases can be cured by a shaman (*dukun*). There are also several tribes in Indonesia who treat disease by magic using one species of plant directly without do a traditional ritual, such as Phakphak Batak tribe, for example using seeds from the *Eurycoma longifolia* plant. The community believes that bitter parts of the plant can heal serious diseases. (Silalahi et al. 2018; Silalahi and Nisyawati 2015).

The shaman will first examine the patient's disease before carry out the *Besale* ritual healings. If the disease need serious medical treatment such as surgery, the patient will be given advice from a shaman to go to the hospital. *Besale* the healding ritual is performed at the balai. There are balai pengasuh, betanggo malai, and angkat sembah have different names but in the implementation of ceremonies, have a single function as a place of offerings. The *Besale* ceremony involves various components, namely *dukun / sidi* (1 person), *bujang pembayun* (2 people), *biduan* (2 people), and *inang* (1 person).

Used plant in Besale ritual healing

This research showed as many as 21 plant species from .. families used by Anak Dalam Tribe in *Besale ritual healing* (Tabel 1).

Comment [JARN5]: It is necessary to use the cartographic location or provide the geo-positioning coordinates.

Comment [JARN6]: It is necessary that the model of the adopted form be attached for comparisons of the collected and presented data. There is also a need that, if there have been changes, these should be cited.

Comment [JARN7]: Was the sample design just the use of the botanical and usual knowledge of the 'healers' of the tribe? Which study is based on this? A good ethnobotanical sampling to expand the sample universe is to use the knowledge of the older population, approaching their knowledge and comparing shamanic knowledge with popular knowledge and how it is perpetuated over the years.

Comment [JARN8]: The qualitative analysis followed according to which authors?

Comment [JARN9]: Was this data published in any magazine? Is this communication of the nature of the author of the article or of the popular ones?

Comment [JARN10]: It is a relevant description of the traditions of the individuals of that tribe, therefore, as a description of it it is necessary that this treche be placed next to the introduction of the article.

Comment [JARN11]: This is the main motivator for the research and the work itself. however, there is no place in the entire introduction, where this should be described, no description, speech or communication in this regard! Furthermore, there is no reference to those who said this passage. If it was the authors, it should therefore be in the final part of the Abstract.

Comment [JARN12]: What is the reference for this text?

102 Table 1. List of plants used in the of Besaleby ADT in the Nyogan Village, Jambi Province, Indonesia
103

Plant family and species	Vernacular name	Annual / perennial	Part of used	Used
Amaranthaceae				
<i>Colesia argantea</i>	Tangkal merah	Annual	Flowers	Ornament of balai
Areaceae				
<i>Areca cetechu</i>	Pinang	Perenial	Midrib, flowers and fruits	Vagina of leaves as ornamet and fruit as whistle
<i>Cocos nucifera</i>	Kelapa	Perenial	Leaves	Toys as "bird"
<i>Elais guinensis</i>	Sawit	Perenial	Fruits	Oil
<i>Eleiodoxa conferta</i>	Asam payo	Perenial	Stem and young leaves	Ornament and Balai Materia
Cyperaceae				
<i>Actinoscripus grossus</i>	Rumbe	Annual	Leaves	Ornament of Balai
Lamiaceae				
<i>Oscimum basilicum</i>	Selasih	Annual	Flowers	Offering
Moraceae				
<i>Artocarpus integrus</i>	Nangka	Perennial	Leaves	Ornament of Balai
Musaceae				
<i>Musa paradisiaca</i>	Pisang	Perenial	Stem and leaves	Binding rod and base of offerings
Oleaceae				
<i>Jasmanium sambac</i>	Melati	Annual	Flowers	Offerings
Pandanaceae				
<i>Pandanus amaryllifolius</i>	Panndan	Annual	Leaves	Ornament of Balai
Piperaceae				
<i>Pipper bettle</i>	Sirih	Perenial	Leaves	Food
Poaceae				
<i>Bambusa</i> sp.	Bambu	Perenial	Stem	Stict
<i>Oryza sativa</i>	Padi Juwa da	Annual	Friuts	Ornament of Balai
<i>Oryza sativa</i> var. Glutinosa	Wajik, cace and leman	Annual	Fruits	Offerings
<i>Panicum virgatum</i>	Rumput telebung	Perenial	All parts	Ornament of Balai
Rubiaceae				
<i>Ixora</i> sp.	Asoka	Annual	Flowers	Offerings
<i>Uncair gambir</i>	Gambir	Perenial	Sap	Food
Styracaceae				
<i>Styrax benzoin</i>	Kemenyan	Perenial	Sap	Scent
Zingiberaceae				
<i>Curcuma longa</i>	Kunyit	Annual	Rhizome	Resources of colour
<i>Globba pendula</i>	Pedas kancil	Annual	Flowers	Offering

Comment [JARN13]: Inform the deposit number of the eccentric at the institution where the identification was made.

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105 Discussion

106 The cost of the Besale ritual healing is relatively expensive (2-3 million IDR) for them and its more expensive
107 compared to medical treatment in hospitals. The notion that traditional medicine is cheaper than modern medicine such as
108 the Dayak Kanayatn Tribe in Ambawang Village (Fadilah et al. 2013), is not the case with Besale. Those resulted the
109 forgotten Besale which resulted in the loss of local knowledge. The ADT utilizing plants obtained from the surrounding
110 environment for the Besale ritual healing. Plant parts are used in the ritual such as flowers, leaves, stems, and fruit.
111 Some the local communities (not ADT) in the neighborhood, did the Besale especially for the people who are already
112 desperate with medical treatment, but the ritual leader is conducted by the ADT. The Besale ritual healing involves various
113 components of the ADT community whose task is to prepare all the needs in the ritual. Healing in Basale is strongly
114 influenced by the availability of overall requirements. Healing prayers can be done and succeed if all requirements are
115 completed.
116 The following are the stages of preparation carried out before the Besale ritual healing ie "balai" (hall buiding). The
117 balai is a place for offerings needed in the Besale ceremony which forms in the Besale ceremony similar to the miniature
118 of the Jambi traditional house. Novriawati (2018) said, The 4 pillars of the balai symbolize the 4 figures involved in the
119 ceremony, namely sidi, inang, bujang pembayun and biduan. The four figures work together to maintain the balai to
120 remain strong. The hall symbolizes the place of the sick so that the four figures involved must protect the patients in the
121 balai.

Comment [JARN14]: What is the reference for this text? Ditto others!

122 The main *balai* is a *balai* as a candle holder (made of beehives) which is lit during the ceremony. The center uses the
123 main pillars of the *Payo Asam* (*Eleiodoxa conferta*) stem and bamboo culms. To decorate the hall used *Payo Asam*
124 (*Eleiodoxa conferta*)'s leaf buds, *berti* (padded rice). Fibers from banana fronds are used to tie garishes to the main stem
125 of the hall. After the ceremony is finished the hall is hung for 3 days.

126 Researchers have shown that various local communities in Indonesia have been long used plants in rituals such as: the
127 Sarampas community in the Jambi (Hariyadi & Ticktin 2012). Taji Ethnic (Rahyuni et al. 2013). Malays (Hasanah et al.
128 2014), Benuaq Dayak Tribe (Falah et al. 2013), Seberuang Dayak Tribe (Takoy et al. 2013), Kayanatn Dayak Tribe
129 (Fadilah et al., 2015) and Kenduri Sko Tribe (Andesmora et al. 2017). When viewed from the part used in *Besale* it is
130 dominated by interest (34.61%). The use of flowers in rituals is thought to be related to the proverb or the ADT shop,
131 namely *ado rimbo ado bungo, ado bungo ado dewa* (there is a forest, there are flowers, there are flowers, there are gods).
132 Empirically various ethnic groups in Indonesia such as Bali and Java utilize various organs of interest in traditional and
133 religious ceremonies. Purwanti (2017) found something different in the Saluan Tribe in Central Sulawesi, which used more
134 stems and leaves for traditional rituals (Purwanti 2017). Menendez et al. (2015) states that in utilization medicinal herbs on
135 various treatments traditionally partly related to the content of bioactive compounds in plants medicine, but some only act
136 as symbol at the ritual event on the process treatment. In this healing ritual *besale* most plant species are used as ritual
137 offerings and symbols.

138 In addition to the main *balai* in the *Besale* ceremony, another *balai* is also needed, which is called the *balai pangadap*
139 (depot hall), the *balai pengasuh* (Caretaker Hall), the *balai Betanggo Malai* (*Betanggo Malai* Hall), the *balai angkat*
140 *sembah* (Lift Sembah hall), the *balai gelangga kuning* (Yellow Hall) (Figure 1). The *balai* is made from a variety of
141 different types of plants between *balai*. *Balai Pangadap* Contains a collection of areca nuts & some birds and toys made
142 from coconut leaves, bamboo sticks, *berti*, red tangkul flowers, jackfruit leaves, *rumbe* / pandan leaves and *telebung* grass.
143 These offerings are useful for feeding spirits that come into the *balai*. Behind this, a candle is placed from the honeycomb
144 whose flame must be maintained until the ritual is complete. People who are sick are usually under this hall.

145 The *balai pengasuh*, *betanggo malai*, and *angkat sembah* have different names but in the implementation of
146 ceremonies, have a single function as a place of offerings. Those *balai* contains the types of offerings contained in the hall
147 *juwada* (glutinous rice with coconut milk), *wajik* (processed glutinous rice with palm sugar), *cace* (glutinous rice), *lemang*
148 (glutinous rice cooked in bamboo) and boiled eggs. In the presentation all offerings are placed on a banana leaf called a
149 *temengkur* (like a rectangular bowl made of banana leaves). *Balai gelanggang kuning* is a yellow colored hall (the dye is
150 derived from turmeric extract). This hall contains offerings in the form of rice, grilled chicken, various flowers that
151 produce a fragrant aroma (jasmine, ashoka, mato caterpillar, tangkul, Selasih).

152 The *Besale* ceremony involves various components, namely *dukun / sidi* (1 person), *bujang pembayun* (2 people),
153 *biduan* (2 people), and *inang* (1 person). The *dukun* is tasked with leading the ceremony that begins with the burning of
154 the kemeyan sap in front of the *dukun's* house before night (the patient is in the *dukun's* house) and leaves. One of the
155 building blocks of the shaman's house wall was opened so that the public could witness the ritual and carry out the
156 ceremony together. In the ADT tribe the shaman is hereditary. *Sidi* uses a white cloth on her head. The white color
157 symbolizes the angel's representative. Novriawati (2018) said that using white cloth on *Besale* ritual healings because
158 humans have four protective angels so *Sidi* has been protected by the four angels.

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Comment [JARN15]: Is there
significance in the adoption of each of these
plant species? I believe that it is of interest
to have an explanation of why such vegetal
pieces are used and for what purposes, as an
offering to a certain deity, as a form of
representation of some figure, spirit, as a
framework of invocation ... etc.

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Figure 1. Ritual *Besale* and *Balai* used by a tribe of ADT in Nagoya Village, Jambi Province, Indonesia. A. *Besale* is ongoing; B. *Balai Pangadap*; C. C. *Balai Penghiasan*; D. *Balai Gelanggang Kuning*. 1: *Sidi*, 2: *Bujang Pembayun*

During the *Besale* ceremony the *sidi* and *bujang pembayun* performed the dance together and recited spells to summon the spirits of their ancestors. The presence of these spirits is believed to cure the sufferer's illness and ward off disaster. Dance activities carried out by the shaman by walking forward, backward and circular (around the patient). The patient's position is under the hall by sitting or lying down. Circular and repetitive movements are sacred, united, and symbolize an unbroken wholeness, continuous. The circle is also a depiction of the *sidi*, the host, the choir and the wager's servant connected to each other and unbroken because they are connected to each other.

The duration of the *Besale* ceremony is generally carried out for a night or until dawn. the ADT community performs rituals at night because they believe that at night the devils spend. scientifically, people choose to do the ceremony at night because in the morning until noon the community conducts activities. After a few days after *Besale*, most sufferers will heal. At the time of this study, we saw patients recovering after a few days of the *Besale* ritual healings. Although it is scientifically difficult to explain, empirical evidence shows that the healing of disease with *Besale* has been clearly seen. *Besale* is a local wisdom from ADT to cure a serious illness facilitated by a shaman to summon the spirits of his ancestors to cure illnesses and keep them from calamity. Through this *Besale* ritual healing the community indirectly gets a message related ti maintaining the values between them as a socio-cultural value system. One of them is the value of collaboration, starting from the preparation of the materials used in the riot *Besale* to the process of carrying out the ceremony. Collaboration occur between ADT communities and *dukun*. *Besale* ritual healing can also strengthen the relationship between the ADT communities. ADT communities will come together to attend the *Besale* ritual healing at the patient's house.

Even though the community knows religion (like Islam) and education, *Besale* ritual is not abandoned. The community believes that everything they gets, both in the form of good, bad, success or disaster and failure comes from the gods. As a form of appreciation and offerings to the gods and spirits,they carry out rituals according to their needs and expectations. One form of ritual that is often performed is this *Besale* ceremony

Based on the results of the study it can be concuded: The plants that are used for the *Besale* ceremony by the Anak Dalam Tribe in Nyogan consist of 24 species belonging 12 families (i). The most widely used plant parts are flower organs with a percentage of 34.61% (ii). The use of plants for the *Besale* ritual is by burning, stirring, hanging and being eaten directly (iii).

ACKNOWLEDGEMENT

We gratitude the Anak Dalam Tribe who helped and provided information in this research.

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The ritualistic practice and plants used of healing in Besale rituals healing practiced by the Anak Dalam Tribe in Nyogan Village, Jambi Province, Indonesia through the use of plants

Comment [F1]: Please conform to: Kurniawan D, Syafri R.A. 2018. Besale sebagai kearifan lokal suku anak dalam di Desa Nyogan Kecamatan Mestong Kabupaten Muaro Jambi, Jambi. Make sure this current manuscript has its own state of the art.

This manuscript is classified as original research, but not short communication. According to Guidance for Author, short communication should be written at least 2,000 words.

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Abstract. The Anak Dalam Tribe (ADT) is an indigenous ethnic which in habited at center of Sumatra Island, especially in Jambi and South Sumatra Provinces, Indonesia. ADT utilizes forest products and hunting as a livelihood and believes in mystical things that are considered sacred as ancestral heritage which are considered as their identities. The ADT still maintains the rituals in the traditional healing such as besale ritual healing. This study aims to analyze the diversity of plants have been used by Anak Dalam Tribe to the Besale ritual healing in Nyogan Village, Jambi Province, Indonesia. The study was conducted with an ethnobotany approach through surveys through interview and participatory observation. A total informant are 6 peoples namely the leaders and performers of the Besale ritual healing. The data analysis is qualitative with the statistical descriptive. The besale means cleansing the souls of people who are sick due to evil spirits residing in a person and is a non-medical treatment process by presenting the spirits of ADT ancestors. The besale healing ritual is carried out by a dukun/sidi (shaman), bujang pembayun (dancers), biduan (singers), and inang (assistant). Those ritual is combines ritual and treatment simultaneously for the people which is carried out on severe diseases. A total 21 species belonging genera? 12 families of plant have been used in the Besale ritual healing. The plant is used to build a hall (place for the Besale ceremony), "bird" ornament, and offerings. The most widely used plant parts are flowers (34,61%). The plants in the Besale ritual healing being burned, smoked, hung and eaten of material fresh.

Keyword: Besale, Anak Dalam Tribe, bujang pembayung

INTRODUCTION

Indonesia has ethnic groups which inhabited at regions that vary ecosystem and cultures. The cultural diversity is reflected in traditional ceremonies, which is maintained for generations. In varies of communities, the traditional ceremonies carried out must be in accordance with those passed down by the ancestors and they assume that if is not appropriate they can get the fee. In general, new traditional ceremonies will be held if it is really needed. The Utilization of plants in traditional ceremonies continues to this day. For example in India there is a Mising religious and supernatural belief ceremony in Misam, they used 30 species of plants from 23 families (Sharma and Pagu, 2011). In Indonesian especially in Sumatra there is a traditional ceremony by the people of Kanagarian Sontang Cubadak Padang, Gelugur Subdistrict, Pasaman District, West Sumatra with 30 species of plants from 19 families (Des et al. 2019) and Kenduri sko traditional ceremony in several districts in Kerinci District, Jambi, found 37 species of plants in 22 families (Des et al. 2019; Suswita 2013). The local communities in Kasepuhan Ciptagelar, West Java carry out rituals nyimur as a Healing Media and its relationship to healing / rejecting the method of bad luck has existed since hundreds of years ago (Awaliah 2019). Wakhidah et al. (2017) said that the utilization of plants in traditional ceremonies can produce a culture of sustainable plant resource management.

One of the traditional ceremonies that is still maintained until today is the Besale ritual healing by the Anak Dalam Tribe (Orang Rimba). The Anak Dalam Tribe (ADT) is a the tribes who still upholds the beliefs of their ancestors. Administratively, these tribe inhabit in the South Sumatra and Jambi Provinces, whereas their majority in Jambi Province (Ibrahim 2013). Takiddin (2014) that the customs and habits of the Anak Dalam Tribe are different from the Malays, so the primitive assumption is still inherent today.

The Anak Dalam Tribe (ADT) has the local wisdom in healing a serious illness that cannot be cured medically is called Besale in this research is called the Besale ritual healing. The Besale ritual healing is the latest alternative healing for ADT and it is carried out when medical treatment cannot be cured. A disease caused by a type of magic the most disease treated by using Besale ritual healings. That community believe that the disease is a disaster given by the Gods. This Besale ritual healings is a form of community's plea for God to be kept away from the disaster.

The Besale ritual healing is a ritual of treatment and marriage by summoning the gods from their previous ancestors (Ibrahim 2013), which to heal who is sick and disastrous by evil spirits. The Besale ritual healing used plants especially the flowers, which taken from the forest. The types of flowers used for wedding ceremonies are different from the flowers used for those ritual (Takiddin 2014). Sharma and Pegu (2011) says that the use of herbs is very wide, including to worship gods and goddesses in order to protect and improve human life. The utilization of plants for traditional ritual indirectly has to biodiversity conservation (Liu et al. 2002; Gam & Nat 2012). Over exploitation can of some species plants can make them be extinction (Ouziki and Taiqui 2016).

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Comment [F5]: how many ethnic group in Indonesia?

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Comment [F8]: Sawita or Suswita? See References

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54 | The documentation of using the plant and local knowledge by the indigenous ethnic is ethnobotany study. The
55 ethnobotany is a bridges of traditional to modern and being growing topic by scientist (Aulana 2015), its describes and
56 explains the link of the culture and using of plants. The ethnobotany study have carried out, which stated that the local
57 knowledge or wisdom of the utilization of plants could be maintained and utilized by all communities for further interest
58 (Syafitri et al. 2014; Efremila et al. 2015). Ethnobotany study is important in terms of biodiversity conservation, especially
59 medicinal and aromatic plants. The ADT is one of the indigenous ethnic groups that lives on the island of Sumatra and is
60 considered the first tribe to inhabit Jambi Province (Effendi and Purnomo 2020). ADT is rich in local knowledge,
61 especially the use, cultivation and introduction of jernang (*Daemanorops* spp.) And (Sulasmi et al 2012b) and rattan
62 (Mairida et al 2016), and jelutung (*Dyera* spp.) (Amina et al. 2016) and turn it into income main. ADT utilizes forest
63 products and hunting as a livelihood and believes in mystical things that are considered sacred as ancestral heritage
64 (Effendi and Purnomo 2020) which are considered as their identities (Harnov et al. 2017). This can preserve the
65 indigenous customs, culture and knowledge from each population through the documentation from their ancestors
66 (Cakilioglu & Turkoglu 2010, Heywood 2011). This study aims to analyze the diversity of plants have been by Anak
67 Dalam Tribe to the *Besale* ritual healing in Nyogan Village, Jambi Province, Indonesia.

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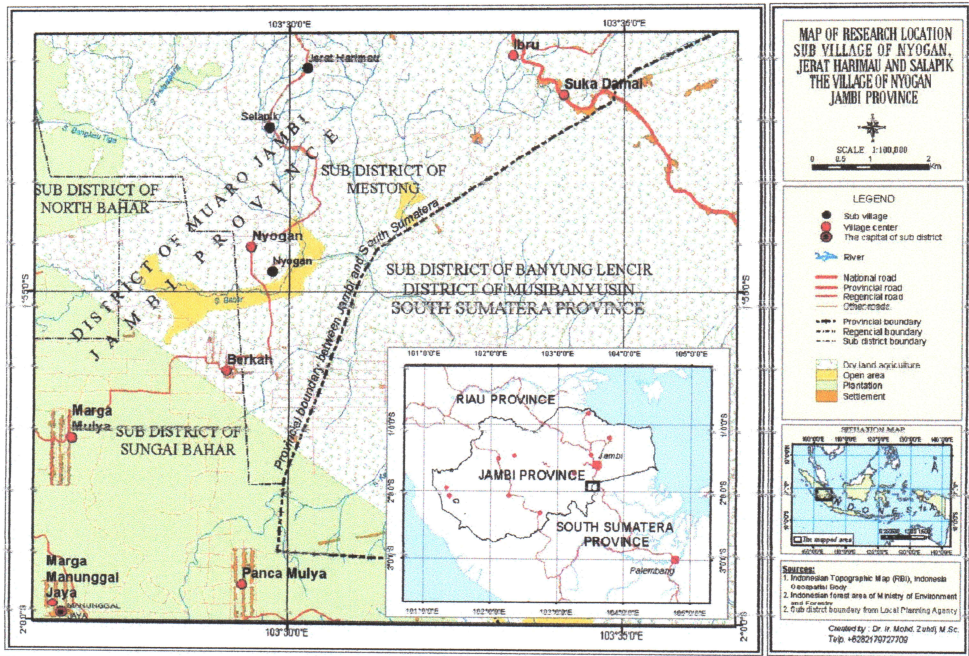
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problem and research aims.

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Nyogan Village and ADT

MATERIAL AND METHODS

69 Study area
70 The study conducted at the Anak Dalam Tribe (ADT) in the Nyogan Village, Jambi Province, Indonesia. on November
71 – Desember 2019.



72 Figure 1. Study site at Nyogan village in Jambi Province, Indonesia (source:)
73

74 Interview and data collection

75 The survey used semi-structured interviews and observation participatory (Martin 1995; Cotton 1996). Ritual besale
76 melibatkan banyak pihak, yaitu penderita, dukun, penari, penabuh gendang, dan parsipan (penonton). Dalam pengambilan
77 data peneliti sebagai partisipan (penonton) Bersama masyarakat lainnya samhal mendokumentasikan semua kegiatan dari
78 awal hingga upacara ritual selesai. The informants determined by purposive sampling, namely traditional healers who had
79 performed basale healing. The interview covers the stages of *Besale* ritual, types of plants, ways of utilization and
80 acquisition sources. Determination of informants also refers to Silalahi (2016) which states that in determining the criteria
81 for informants who need note several things namely informants who have long and intensively integrated with activities
82 of the researcher's attention; who is still involved intensively integrated with activities or activities that are the target of the
83 researcher's attention; have enough time or opportunity to information requested. The number of informants interviewed

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84 was 6 people. The minimum number of informants is due to the fact that the people involved in Besale rituals are
85 decreasing and have begun to be left behind and the number of shamans is very limited. Data collected includes: local
86 names, parts used and benefits of the plants which used to Besale ritual healing. The plant collected is made voucher
87 specimen and stored-deposited in the Biology Department of Jambi University. The plant identification was carried out at
88 Andalas Herbarium, Andalas University, Padang.

89 **Data analysis**
90 Data were analyzed qualitatively using descriptive statistics (Silalahi dan Nisyawati 2019). Descriptive statistics was
91 conducted to obtain the most widely used plants species and families, also conservation behavior of Besale ritual healing at
92 Nyogan Village, Jambi Province. The qualitative analysis is carried out by explaining and describing the Besale ritual
93 process carried out in Nyogan Village, Jambi.

94 **RESULT AND DISCUSSION**

95 The Anak Dalam Tribe (ADT) is the one of the unique tribes in Indonesia. The ADT is one of the indigeneous ethnic
96 groups living on the island of Sumatra and is considered the first tribe to inhabit the Province of Jambi (Effendi and
97 Purnomo 2020). The Anak Dalam tribe is often referred to as the *Orang Kubu*, *Orang Rimbo* and *Orang Kelam* (Ahat and
98 Auliahadi 2018). The *Orang Kubu* in Malay has two meanings of hiding places and are stupid so this title began to be
99 abandoned because it was considered rude, while Orang Rimbo has the meaning of humans who live in the forest
100 according to ADT customs (Ahat and Auliahadi 2018), but ADT is considered to be more popular in the community. The
101 ADT is rich in local knowledge, especially the use, cultivation and introduction of jemang (*Daemonorops* spp.) (Sulasmi
102 et al 2012b), rattan (Mairida et al 2016), and jelutung (*Dyera* spp.) (Amina et al 2016) and it's the their main of income.
103 The ADT utilizes forest products and hunting as a livelihood (Effendi and Purnomo 2020). They believe in mystical
104 things that are considered sacred as ancestral heritage (Effendi and Purnomo 2020) which are considered as their identities
105 (Harnov et al. 2017). Most of ADT live semi-nomadic or nomadic. The *melangun* (moving to a new location or leaving an
106 old location)) is done when a relative or citizen dies, avoids the enemy, and opens a new field. The ADT house or
107 residence is called *sesudungon* (small stage huts) and *Rumah Godong* (a large-sized hut) made of wood (floors, poles,
108 walls) while the roof has leaves (Khamdevi 2019). Its language, customs, matrilineal familial inheritance system is similar
109 to Minangkabau ethnicity in West Sumatra (Khamdevi 2019), so ADT is thought to originate or be related to Minangkabau
110 ethnicity (Pratama & Auliahadi 2019).

111 **Besale ritual healing**
112 The Anak Dalam Tribe (ADT) has the local wisdom in healing a serious illness that cannot be cured medically is called
113 *Besale* in this research is called the *Besale* ritual healing. The *Besale* ritual healing is the latest alternative healing for
114 ADT and it is carried out when medical treatment cannot be cured. A disease caused by a type of magic the most disease
115 treated by using *Besale* ritual healings. That community believe that the disease is a disaster given by the Gods. This
116 *Besale* ritual healings is a form of community's plea for God to be kept away from the disaster. Silalahi et al. (2015) said
117 that *supra natural* disease is a disease caused by *supra natural* spirit, karma and bad attitude from someone, for example
118 hungry edema. Hungry edema is believed by the Simalungun Batak sub-ethnic tribe of North Sumatra as a result of
119 stealing. Not all diseases can be cured by a shaman (*dukun*). There are also several tribes in Indonesia who treat disease by
120 magic using one species of plant directly without do a traditional ritual, such as Batak Toba tribe, for example using seeds
121 from the *Eurycoma longifolia* (Silalahi and Nisyawati 2015).
122 The shaman will first examine the patient's disease before carry out the *Besale* ritual healings. If the disease need
123 serious medical treatment such as surgery, the patient will be given advice from a shaman to go to the hospital. The besale
124 the healing ritual is performed at the *main balai*. The other *balai* is *balai pengasuh*, *hetanggo*, and *angkat sembah* has
125 different function in the implementation of ceremonies, such as a place of offerings. The *Besale* ceremony involves
126 various components, namely *dukun/sidi or shaman* (1 person), *bujang pembayun* or dancers (2 people), *biduan* or singers
127 (2 people), and *inang* or (1 person). **Biar lebih informatif mungkin dijelaskan fungsi setiap komponen penyembuhan**
128 **penyakit**

129 **Used plant in Besale ritual healing**
130 This research showed as many as 21 plant species belonging 13 families have been used by Anak Dalam Tribe in
131 *Besale* ritual healing (Tabel 1).

134 **Table 1.** List of plants used in the of *Besale* ritual healing by ADT in the Nyogan Village, Jambi Province, Indonesia

Plant family and species	Vernacular name	Annual perenial	/	Part of used	Used
Amaranthaceae					

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Comment [F23]: Please rewrite. Please see Guidance for Authors. You could choose one of 2 alternatives here:
1. Results and Discussion are written as a series of connecting sentences. Results and Discussion consists of 2 subtitles, i.e.
Besale ritual healing (Results and Discussion)
Used plant in Besale ritual healing (Results and Discussion), or
2. Results and Discussion are written as a separated part. Results and Discussion Results (no reference cited)
Besale Ritual Healing
Used plant Besale ritual healing Discussion (without subtitles)
According to your research topic and data obtained, I recommend to use alternative 1

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Comment [F24]: Please check previous part, do not make repetitive statement

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Comment [F27]: Please explain history of Besale ritual healing Who make and when was Besale ritual healing in the first time? How is development of this ritual?

Comment [F28]: No reference? Some statements are similar to

Comment [F29]: Please add, not only Batak Toba tribe

Comment [F30]: Please compare with Kurniawan D, Syafri RA. 2018. Besale sebagai kearifan lokal suku anak dalam di Desa Nyogan Kecamatan Mestong Kabupaten Muaro Jambi, Jambi Similar or any difference?

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Comment [F31]: Comments from other reviewer

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... [1]

<i>Colesia argentea</i>	Tangkul merah	Annual	Flowers	Ornament of balai
Arecaceae				
<i>Areca cetechu</i>	Pinang	Perenial	Midrib, flowers and fruits	Vagina of leaves as ornamet and fruit as whistle
				Toys as “bird”
<i>Cocus nucifera</i>	Kelapa	Perenial	Leaves	
<i>Elaeis guineensis</i>	Sawit	Perenial	Fruits	Oil
<i>Eleiodoxa conferta</i>	Asam payo	Perenial	Stem and young leaves	Ornament and Balai Materia
Cyperaceae				
<i>Actinoscripus grossus</i>	Rumbe	Annual	Leaves	Ornament of Balai
Lamiaceae				
<i>Oscimum basilicum</i>	Selasih	Annual	Flowers	Offering
Moraceae				
<i>Artocarpus integra</i>	Nangka	Perenial	Leaves	Ornament of Balai
Musaceae				
<i>Musa paradisiaca</i>	Pisang	Perenial	Stem and leaves	Binding rod and base of offerings
Oleaceae				
<i>Jasmanium sambac</i>	Melati	Annual	Flowers	Offerings
Pandanaceae				
<i>Pandanus amarylthifolius</i>	Pandan	Annual	Leaves	Ornament of Balai
Piperaceae				
<i>Pipper bettle</i>	Sirih	Perenial	Leaves	Food
Poaceae				
<i>Bambusa</i> sp.	Bambu	Perenial	Stem	Stict
<i>Oryza sativa</i>	Padi Juwa da	Annual	Friuts	Ornament of Balai
<i>Oryza sativa</i> var.	Wajik, cace and	Annual	Fruits	Offerings
Glutinosa	lemang			
<i>Panicum virgatum</i>	Rumput telebung	Perenial	All parts	Ornament of Balai
Rubiaceae				
<i>Ixora</i> sp.	Asoka	Annual	Flowers	Offerings
<i>Uncair gambir</i>	Gumbir	Perenial	Sap	Food
Styracaceae				
<i>Styrax benzoin</i>	Kemenyan	Perenial	Sap	Scent
Zingiberaceae				
<i>Curcuma longa</i>	Kunyit	Annual	Rhizome	Resources of colour
<i>Globba pendula</i>	Pedas kancil	Annual	Flowers	Offering

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Comment [F36]: Please check this terminology. What is gatherer?

Comment [F37]: Please explain this statement and present data

Comment [F38]: Plcasc mention the ethnic of local communities

Comment [F39]: References?

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Discussion

The besale has the meaning of cleansing the souls of people who are sick due to evil spirits that reside in a person (Kurniawan and Syafri 2018) and the cultural heritage of ADT in non-medical treatment (Kurniawan dan Syafri 2018; Sinaga dan Rustaman, 2015). The besale ritual healing is closely related to the beliefs of animism and the unseen soul (Kurniawan and Syafri 2018). In implementing besale ritual healing requires a lot of material so that the costs are relatively expensive especially when viewed from the income and profession of ADT as a gatherer. The cost of the Besale ritual healing is relatively expensive (2-3 million IDR) for them and its more expensive compared to medical treatment in hospitals. The notion that traditional medicine is cheaper compared to modern medicine does not fully apply, especially treatment that uses ritual. The ADT considers that if a family member or a sick relative is a sign that the deity has brought disaster down, so the ceremony is a sacred ceremony (Kurniawan and Syafri. 2018). Hariyadi and Ticktin (2012) stated that to maintain their health, local communities in Jambi have a harmonious relationship between humans, nature and the invisible beings.

Those resulted the forgotten Besale which resulted in the loss of local knowledge. The ADT utilizing plants obtained from the surrounding environment for the Besale ritual healing. Plant parts are used in the ritual such as flowers, leaves, stems, and fruit. Some the local communities (not ADT) in the neighborhood, did the Besale especially for the people who are already desperate with medical treatment, but the ritual leader is conducted by the ADT. The Besale ritual healing involves various components of the ADT community whose task is to prepare all the needs in the ritual. Healing in Basale is strongly influenced by the availability of overall requirements. Healing prayers can be done and succeed if all requirements are completed.

The following are the stages of preparation carried out before the Besale ritual healing, i.e. “balai” (hall buiding). The balai is a place for offerings needed in the Besale ceremony which forms in the Besale ceremony similar to the miniature of the Jambi traditional house. According to Novriawati (2018) said, tThe 4 pillars of the balai symbolize the 4 figures

involved in the ceremony, namely *sidi*, *inang*, *bujang pembayun*, and *biduan*. The four figures work together to maintain the *balai* to remain strong. The hall symbolizes the place of the sick so that the four figures involved must protect the patients in the *balai*.

The main *balai* is a *balai* as a candle holder (made of beehives) which is lit during the ceremony. The center uses the main pillars of the *Payo Asam* (*Eleiodoxa conferta*) stem and bamboo culms. To decorate the hall used *Payo Asam* (*Eleiodoxa conferta*)'s leaf buds, *berti* (padded rice). Fibers from banana fronds are used to tie garlands to the main stem of the hall. After the ceremony is finished the hall is hung for 3 days.

Researchers have shown that various local communities in Indonesia have been long used plants in rituals such as: the Sarampas community in the Jambi (Hariyadi & Ticktin 2012), Tajio Ethnic (Rahyuni et al. 2013), Malays (Hasanah et al. 2014), Benuaq Dayak Tribe (Falah et al. 2013), Seberuang Dayak Tribe (Takoy et al. 2013), Kayanatn Dayak Tribe (Fadilah et al., 2015) and Kenduri Sko Tribe (Andesmora et al. 2017). When viewed from the part used in *Besale* it is dominated by interest (34.61%). The use of flowers in rituals is thought to be related to the proverb or the ADT shop, namely *ado rimbo ado bungo*, *ado bungo ado dewa* (there is a forest, there are flowers, there are flowers, there are gods). Empirically various ethnic groups in Indonesia such as Bali and Java utilize various organs of interest in traditional and religious ceremonies. Purwanti (2017) found something different in the Saluan Tribe in Central Sulawesi, which used more stems and leaves for traditional rituals (Purwanti 2017). Menendez et al. (2015) states that in utilization medicinal herbs on various treatments traditionally partly related to the content of bioactive compounds in plants medicine, but some only act as symbol at the ritual event on the process treatment. In this healing ritual *besale* most plant species are used as ritual offerings and symbols.

In addition to the main *balai* in the *Besale* ceremony, another *balai* is also needed, which is called the *balai pangadap* (depot hall), the *balai pengasuh* (Caretaker Hall), the *balai Betanggo Malai* (*Betanggo Malai* Hall), the *balai angkat sembah* (Lift Sembah hall), the *balai gelangga kuning* (Yellow Hall) (Figure 2). The *balai* is made from a variety of different types of plants between *balai*. *Balai Pangadap* contains a collection of areca nuts & some birds and toys made from coconut leaves, bamboo sticks, *berti*, red tangkul flowers, jackfruit leaves, *rumbe* / pandan leaves and telebung grass. These offerings are useful for feeding spirits that come into the *balai*. Behind this, a candle is placed from the honeycomb whose flame must be maintained until the ritual is complete. People who are sick are usually under this hall. The use of birds in *besale* ritual healing is suspected as a medium to bring disaster in this case a flying disease (out of the patient). To release the disease from the patient is preceded by singing and dancing. Ananda (2019) states that the Sakai tribe in Sumatra uses bird swing ornaments made of coconut leaves at a healing ceremony, almost the same thing was found at the *besale* ritual healing using a small house (hall) with plaited birds and coconut leaves on its head as a property, the hall was provided and functioned as a place for the evil spirits to leave after leaving the sufferer.

The *balai pengasuh*, *betanggo malai*, and *angkat sembah* have different names but in the implementation of ceremonies, have a single function as a place of offerings. Those *balai* contains the types of offerings contained in the hall *juwada* (glutinous rice with coconut milk), *wajik* (processed glutinous rice with palm sugar), *cacc* (glutinous rice), *lemang* (glutinous rice cooked in bamboo) and boiled eggs. In the presentation all offerings are placed on a banana leaf called a *temengkur* (like a rectangular bowl made of banana leaves). *Balai gelanggang kuning* is a yellow colored hall (the dye is derived from turmeric extract). This hall contains offerings in the form of rice, grilled chicken, various flowers that produce a fragrant aroma (jasmine, ashoka, mato caterpillar, tangkul, Selasih).

The *Besale* ceremony involves various components, namely *dukun / sidi* (1 person), *bujang pembayun* (2 people), *biduan* (2 people), and *inang* (1 person). The *dukun* is tasked with leading the ceremony that begins with the burning of the kemeyan sap in front of the *dukun*'s house before night (the patient is in the *dukun*'s house) and leaves. One of the building blocks of the shaman's house wall was opened so that the public could witness the ritual and carry out the ceremony together. In the ADT tribe the shaman is hereditary. *Sidi* uses a white cloth on her head. The white color symbolizes the angel's representative. Novriawati (2018) said that using white cloth on *Besale* ritual healings because humans have four protective angels so *Sidi* has been protected by the four angels.

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Figure 2. Ritual *Besale* and Balai used by a tribe of ADT in Nagoya Village, Jambi Province, Indonesia. A. *Besale* is ongoing; B. Balai Pangadap; C. Balai Pengharian; D. Balai Gelanggang Kuning. 1: Sidi, 2: Bujang Pembayun

During the *Besale* ceremony the *sidi* and *bujang pembayun* performed the dance together and recited spells to summon the spirits of their ancestors. The presence of these spirits is believed to cure the sufferer's illness and ward off disaster. Dance activities carried out by the shaman by walking forward, backward and circular (around the patient). The patient's position is under the hall by sitting or lying down. Circular and repetitive movements are sacred, united, and symbolize an unbroken wholeness, continuous. The circle is also a depiction of the *sidi*, the host, the choir and the *wager's* servant connected to each other and unbroken because they are connected to each other.

The duration of the *Besale* ceremony is generally carried out for a night or until dawn, the ADT community performs rituals at night because they believe that at night the devils spend, scientifically, people choose to do the ceremony at night because in the morning until noon the community conducts activities. After a few days after *Besale*, most sufferers will heal. At the time of this study, we saw patients recovering after a few days of the *Besale* ritual healings. Although it is scientifically difficult to explain, empirical evidence shows that the healing of disease with *Besale* has been clearly seen. *Besale* is a local wisdom from ADT to cure a serious illness facilitated by a shaman to summon the spirits of his ancestors to cure illnesses and keep them from calamity. Through this *Besale* ritual healing the community indirectly gets a message related to maintaining the values between them as a socio-cultural value system. One of them is the value of collaboration, starting from the preparation of the materials used in the riot *Besale* to the process of carrying out the ceremony. Collaboration occur between ADT communities and *dukun*. *Besale* ritual healing can also strengthen the relationship between the ADT communities. ADT communities will come together to attend the *Besale* ritual healing at the patient's house.

Even though the community knows religion (like Islam) and education, *Besale* ritual is not abandoned. The community believes that everything they gets, both in the form of good, bad, success or disaster and failure comes from the gods. As a form of appreciation and offerings to the gods and spirits, they carry out rituals according to their needs and expectations. One form of ritual that is often performed is this *Besale* ceremony

Based on the results of the study it can be concluded: The plants that are used for the *Besale* ceremony by the Anak Dalam Tribe in Nyogan consist of 24 species belonging 12 families (i). The most widely used plant parts are flower organs with a percentage of 34.61% (ii). The use of plants for the *Besale* ritual is by burning, stirring, hanging and being eaten directly (iii).

ACKNOWLEDGEMENT

We gratitude the Anak Dalam Tribe who helped and provided information in this research.

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The practice and plants used in *Besale* ritual healing by The Anak Dalam Tribe in Nyogan Village, Jambi, Indonesia

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Abstract. Asra R, Silalahi M, Fijridiyanto IA. 2020. The practice and plants used in *Besale* ritual healing by The Anak Dalam Tribe in Nyogan Village, Jambi, Indonesia. *Biodiversitas* 21: xxxx. The Anak Dalam Tribe (ADT) is an indigenous ethnic which inhabits the center of Sumatra, especially in Jambi and South Sumatra Provinces, Indonesia. The ADT communities still maintain their traditional rituals; one of them is the *besale* ritual healing (BRH). This study aims to analyze the diversity of plants used in BRH by the ADT in Nyogan Village, Jambi Province, Indonesia. The study was conducted with an ethnobotany approach through surveys using interviews and participatory observations. The total number of informants was six persons, namely the leaders and performers of the BRH. The data were analyzed qualitatively using descriptive statistics. The BRH is carried out by a *dukunorsidi* (shaman), *bujang pembayun* (dancers), *biduan* (singers), and *inang* (assistant). They combine ritual and treatment simultaneously to cure people who have severe illnesses. There are 21 species belong to 20 genera and 12 families of plants used in the BRH. The plants are used to build a hall (place for the BRH), “bird” ornament, and offerings. The most widely used part of the plant is the flowers (34,61%). The plants used in the BRH are fresh materials, which are burned, smoked, hung, and eaten during the ritual.

Keyword: Anak Dalam Tribe, *Besale*, *bujang pembayun*

INTRODUCTION

There are more than 80 ethnic groups live in Sumatra (Bangun 2010). Various ethnic groups Sumatra have traditional ceremonies, including the Uras (Hariyadi and Tictin 2012), *Kendurisko* (Suswita 2013), *Togak Belian* (Ardina 2016), and *Nyimur* (Awaliah 2019). One of the ethnic groups in Jambi is the Anak Dalam Tribe. These tribes inhabit the South Sumatra and Jambi Provinces, whereas their majority in Jambi Province (Ibrahim 2013). The customs and habits of the Anak Dalam Tribe are different from the Malays, so the primitive assumption is still inherent today (Takiddin 2014).

In Indonesian, especially in Sumatra, there is a traditional ceremony by *Kendurisko* traditional ceremony in several districts in Kerinci District, Jambi, found 37 species of plants in 22 families (Suswita 2013) and the people of Kanagarian Sontang Cubadak Padang, Gelugur Subdistrict, Pasaman District, West Sumatra with 30 species of plants from 19 families (Des et al. 2019). The local communities in Kasepuhan Ciptagelar, West Java, carry out rituals *nyimur* as a healing media, and its relationship to healing/rejecting the method of bad luck has existed since hundreds of years ago (Awaliah 2019). Wakhidah et al. (2017) said that the utilization of plants in traditional ceremonies could produce a culture of sustainable plant resource management.

One of the traditional ceremonies that is still maintained until today is the *Besale* ritual healing (BRH) by the Anak Dalam Tribe/ADT (Orang Rimba). The ADT is a tribe that still upholds the beliefs of their ancestors. Administratively, this tribe inhabits the South Sumatra and Jambi Provinces, whereas their majority in Jambi Province (Ibrahim 2013). Takiddin (2014) said that the customs and habits of the ADT are different from the Malays, so the primitive assumption is still inherent today. The BRH used plants, especially the flowers, which were taken from the forest. The flowers used for wedding ceremonies are different from the flowers used for this ritual (Takiddin 2014). The utilization of plants for traditional ritual indirectly has affected to biodiversity conservation (Liu et al. 2002; Gam and Nat 2012).

The ADT is one of the indigenous ethnic groups that live on the island of Sumatra and is considered the first tribe to inhabit Jambi Province (Effendi and Purnomo 2020). ADT is rich in local knowledge, especially the use, cultivation, and introduction of *jernang* (*Daemonorops* spp.) (Sulasmi et al. 2012), rattan (Mairida et al. 2016), and *jelutung* (*Dyera* spp.) (Aminah et al. 2016) and turn it into the primary income. ADT utilizes forest products and hunting as a livelihood and believes in magical things that are considered sacred as ancestral heritage (Effendi and Purnomo 2020), which are considered as their identities (Harnov et al. 2017). This can preserve the indigenous customs, culture, and knowledge from each population

through the documentation from their ancestors (Cakilcioglu & Turkoglu 2010, Heywood 2011). This study aims to analyze the diversity of plants have been by Anak Dalam Tribe to the *Besale* ritual healing in Nyogan Village, Jambi Province, Indonesia.

MATERIAL AND METHODS

Study area

The study was carried out at the ADT in the Nyogan Village, Jambi Province, Indonesia. The study was conducted during November – December 2019 at the Nyogan Village, Muaro Jambi Districts, Jambi Province, Indonesia (Fig. 1). The Nyogan village is located at 103°30'0"-103°35'0" E, and 2°0'00" S at an altitude of 5 - 10 m above sea level and 55 km away from Jambi. The area of Nyogan Village is 7,872 km² and consists of 4 hamlets, namely Nyogan Hamlet, JeratHarimau Hamlet, Nebang Para Hamlet and Selapik Hamlet. The population living in this area is 3.400 people, consisting of 1.637 women and 1763 men who come from 970 families. The local communities in the Nyogan Village consist of 50% ADT and 50% Melayu Jambi and Java Tribe. The ADT in Nyogan, initially lived on rafts along the river, so their main livelihood was fishing and selling it to other residents, as well as looking for non-timber forest products. But now they don't live on the raft anymore, because they have been given a place to live by the oil palm company there.

Interview and data collection

The survey used semi-structured interviews and observation participatory (Martin 1995; Cotton 1996). In its implementation, the BRH involves sufferers, shamans, dancers, drummers, and participants. In data collection, the researcher acts as a participant along with other communities and documents all processes from the start to the completion of the ritual ceremony. The informants were determined by purposive sampling, namely traditional healers who had performed basale healing. The interview method was done to obtain information about the stages of BRH, types of plants, ways of utilization, and acquisition sources. Determination of informants also refers to Silalahi (2016), which states that in determining the criteria for informants who need note several things namely informants who have long and intensively integrated with activities of the researcher's attention; who is still involved intensively integrated with activities or activities that are the target of the researcher's attention; have enough time or opportunity to the information requested. A total of informants interviewed wassix persons who were involved in the BRH. The minimum number of informants is due to the fact that the people involved in BRH are decreasing and have begun to be left behind, and the number of shamans is very limited. Data collected includes local names, parts used, and benefits of the plants which used to Basale ritual healing. The plant collected is made voucher specimen and deposited in the Biology Departement of Jambi University. The plant identification was carried out at Andalas Herbarium, Andalas University, Padang.

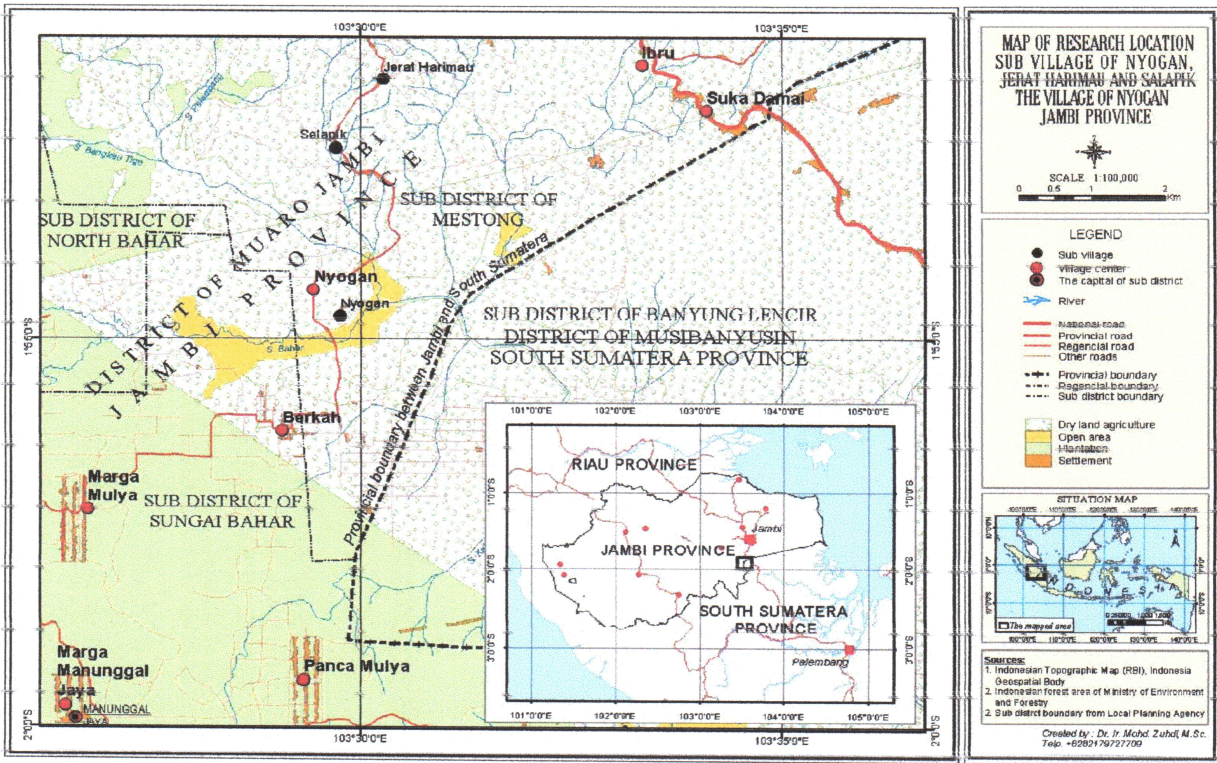


Figure 1. Study site at Nyogan village in Jambi, Indonesia (source: personal document)

Data analysis

The data obtained were in the form of quantitative data, namely the BRH process, the name of the plant used, the part of the plant used, and its function. The data were analyzed qualitatively using descriptive statistics (Silalahi and Nisyawati 2019). Descriptive statistics were conducted to obtain the most widely used plant species and families, also conservation behavior of BRH at Nyogan Village, Jambi Province. The qualitative analysis is carried out by explaining and describing the BRH process carried out in Nyogan Village, Jambi.

RESULT AND DISCUSSION

Besale Ritual Healing (BRH)

The BRH has been practicing for a long time ago or since the ADT inhabited in the Nyogan Village. This ritual is still carried out until the time of the research, but it tends to experience degradation. The most ADT in the Nyogan Village believes that the disease is caused by the spirit of the ancestor who is "angry" with the sufferer so that the evil spirit enters the patient's body. This occurs because of violations committed by members of the community towards nature and against ancestral spirits. Therefore, to heal is done by expelling evil spirits from the sufferer's body. The ADT believes that to get rid of evil spirits, a ritual, led by a shaman, is carried out in a series of processes called BRH. In implementing BRH, the dukun is assisted by a shadow man (*pembayung*), a drummer, a

dancer, and a host with different duties. The shaman is tasked with helping the shaman recite incantations (special reading to ward off evil spirits). The chanting of the incantation is accompanied by music (by the drummer) and dance (by the dancer). The dance movements are heavily influenced by the incantation speaker and the rhythm of the drums. The informant stated that sometimes dancers do not realize the movements they are doing, and the movements cannot be stopped alone but must be assisted by a shaman. The BRH process is divided into three stages. They are a request by the patient to shaman, *Bertakas* (preparations), and the BRH night procession. The following is an explanation of the three stages of the BRH (Table 1).

Ornaments and Balai (halls) in Besale ritual healing

During the besale process, there are several important ornaments used in the event. These ornaments are called as "*balai*". (Table 2). The *balai* (hall) is a house believed by SAD to be the place where ancestral spirits reside. Balai (hall) is a miniature house measuring 1 meter. Seven *balai* (halls) are needed in carrying out the Besale ceremony. They are namely: *Balai Pengadapan*, *Balai Pengasuh*, *Balai Kurung Resio*, *Balai Bertajuk Kembang*, *Balai Gelanggang Kuning*, *Balai Bebangun*, and *Balai Betanggo Malai*. Naming *balai* (hall) is closely related to the function of each *balai* (hall), such as a *Balai Penghadapan* (a front hall), which is useful as a place for patients to be faced. *Pengadapan* here means that the patients will face the evil spirits that cause disease in themselves.

Table 1. The stages of the besale ritual healing

Activities	Executors	Place	Function
A Request by the patient to shaman	citizen who want to seek treatment	Shamn's house	To diagnose the disease suffered by the person. After being diagnosed, then it is checked whether the besale ritual can be carried out or not.
<i>Bertakas</i> (Preparation steps)			
Collecting material	all of citizens and patient's families	forest	to find natural materials that are used in making ornaments and offerings.
Making of offerings	all of citizens and patient's families	Patient's house	to prepare the offerings given to the spirits of the ancestors
Making of Ornament	all of citizens and patient's families	Patient's house	to make ornaments needed in ceremonies such as <i>balai</i> (hall building)
Giving <i>sirih petanyo</i>	family members of the patient	Patient's house	to ask the shaman for help or the traditional leader symbolically and to ensure that all the required materials are completely available.
hanging of <i>balai</i> (hall building)	all of citizens and patient's families	Patient's house	to hang a <i>balai</i> on the wall of the house (as a place for patients to be treated) and six <i>balai</i> under the roof of the house.
BRH night procession			
Opening ceremony	shaman	Patient's house	to govern the patient to sit under the <i>balai pengadapan</i> (tapping hall)
Expelling / releasing evil spirits	shaman	Patient's house	to ward off evil spirits that cause disease in the patient
Closing ceremony	shaman	Patient's house	to beg ritual that has been done successfully and give a break to the patient

Table 2. Ornaments used in the besale ritual healing

Name of ornaments	Meaning	Function
Balai Pengadapan	A symbol of respect for the spirits of the ancestors	A place for the patient to be treated
Balai Pengasuh	Symbol of offerings to the spirits who have entered into a shaman	To treat children in order to have a balance in loving father or mother
Balai Kurung Resio	The innermost symbol of the human soul	As a place for ancestral spirits to reside during the ceremony
Balai Bertajuk Kembang	Symbol of the gathering of the spirits of the ancestors	For a place of respect for the ancestors for a place of respect for the ancestors
Balai Gelanggang Kuning	Symbols of "village watchman" such as genies and demons that roamed on the sea and air	To drive out the evil spirits so that they don't bother anymore
Balai Bebangun	Symbol of awakening the ancestors	To awaken the spirits of the ancestors so that the spirits can enter the body of the shaman
Balai Betanggo Malai	Symbol of exorcism of evil spirits	To ward off evil spirits that are inside the patient

The seven halls used are made of tamarind wood, which is nailed with bamboo as an adhesive to each other. The hall that was ready was then tied with bark and then hung. The hall is decorated with *yarlipan* (centipede finger) decorations. *Yarlipan* is made of light green coconut leaves. Each *balai* is also furnished with decorations. There are *Ocinium basilicum* L. leaves stuck on the roof of the *balai*, *Celosia argentea* L. to decorate the roof of the hall, *Berti* (*Oryza sativa* L. were two years old), candle made from forest honey for lighting, *arangayun* (charcoal swing) made of copper and *sumping tamping*, which made from coconut leaves. The decorations that each hall are different, for example, *Balai Pengasuh* with five *arangayun* decoration and *Balai Kurung Resio* wrapped with white fabric.

The following are the stages of preparation carried out before the *Besale* ritual healing, i.e. "*balai*" (hall buiding). The *balai* is a place for offerings needed in the *Besale* ceremony, which forms in the *Besale* ceremony similar to the miniature of the Jambi traditional house. According to Novriawati (2018), the four pillars of the *balai* symbolize the four figures involved in the ceremony, namely *sidi*, *inang*, *bujang pembayu* and *biduan*. *Sidi* is the shaman who leads the way BRH, *inang* is an assistant who helps *Sidi* in BRH, *bujang pembayu* is a person who is in charge of following the *sidi* when berating and *biduan* is the person who accompanies the BRH process overnight by beating the *redup* (a kind of drum which is made from tree bark). The four figures work together to maintain the *balai* to remain strong. The hall symbolizes the place of the sick so that the four figures involved must protect the patients in the *balai*.

The main *balai* is a *balai* as a candle holder (made of beehives), which is lit during the ceremony. The center uses the main pillars of the *Payo Asam* (*Eleiodoxa conferta*) stem and *Bambusa vulgaris* Schard. culms. To decorate the hall used *Payo Asam* (*Eleiodoxa conferta*) leaf buds, *berti* (padded rice). Fibers from banana fronds are used to tie garnishes to the main stem of the *balai*.

In addition to the main *balai* in the BRH, another *balai* is also needed, which is called the *Balai Pangadap* (depot hall), the *Balai Pengasuh* (Caretaker Hall), the *Balai Betanggo Malai* (*BetanggoMalai* Hall), the *Balai Angkat*

Sembah (*Angkat Sembah* hall), the *Balai Gelanggang Kuning* (Yellow Hall) (Figure 2). The *balai* is made from a variety of different types of plants between *balai*. *Balai Pengadap* contains a collection of *Areca catechu* & some birds and toys made from *Cocus nucifera* leaves, *Bambusa vulgaris* sticks, *berti*, *Celosia argentea* flowers, *Artocarpus integra* leaves, and *Pandanus amaryllifolius* leaves. These offerings are useful for feeding spirits that come into the *balai*. Behind this, a candle is placed from the honeycomb whose flame must be maintained until the ritual is complete. People who are sick are usually under this hall. The use of birds in *besale* ritual healing is suspected as a medium to bring disaster, in this case, a flying disease (out of the patient). To release the disease from the patient is preceded by singing and dancing. *Syair* or mantra in the song is uttered by *Sidi* accompanied by *redap*. The dancing movements performed in BRH are known as *berentak*. *Berentak* is the movement of walking straight forward, backward, going around, and jumping. The scrambled movements in BRH are short, heavy movements and contain four basic footsteps. Ananda (2019) states that the Sakai tribe in Sumatra uses bird swing ornaments made of coconut leaves at a healing ceremony. Almost the same thing was found at the *besale* ritual healing using a small house (hall) with plaited birds and coconut leaves on its head as a property. The hall was provided and functioned as a place for the evil spirits to leave after leaving the sufferer.

The *Balai Pengasuh*, *Betanggo Malai*, and *Angkat Sembah* have different names but in the implementation of ceremonies, have a single function as a place of offerings. Those *balai* contain the types of offerings, such as *juwada* (glutinous rice with coconut milk), *wajik* (processed glutinous rice with palm sugar), *cace* (glutinous rice), *lemang* (glutinous rice cooked in bamboo), and boiled eggs. In the presentation, all offerings are placed on a banana leaf called a *temengkur* (like a rectangular bowl made of banana leaves). *Balai Gelanggang Kuning* is a yellow colored hall (the dye is made from turmeric extract). This hall contains offerings in the form of rice, grilled chicken, various flowers that produce a fragrant aroma (jasmine, ashoka, mato caterpillar, tangkul, Selasih).



Figure 2. Ritual *Besale* and *Balai* used by a tribe of ADT in Nagoya Village, Jambi Province, Indonesia. A. *Besale* is ongoing; B. *Balai Pangadap*; C. *Balai Penghiasan*; D. *Balai Gelanggang Kuning*. 1: *Sidi*, 2: *Bujang Pembayun*

The *Besale* ceremony involves various components, namely *dukun / sidi* (1 person), *bujang pembayun* (2 persons), *biduan* (2 persons), and *inang* (1 person). The *dukun* is tasked with leading the ceremony that begins with the burning of the kemeyan sap in front of the *dukun*'s house and *Areca catechu* leaf midribs. One of the building blocks of the shaman's house wall was opened so that the public could witness the ritual and carry out the ceremony together. In the ADT tribe the shaman is hereditary. *Sidi* uses a white cloth on her head. A *sidi* is usually a man. Novriawati (2018) said that the white color symbolizes the angel's representative. Using white cloth on *Besale* ritual healings because humans have four protective angels so *Sidi* has been protected by the four angels.

During the *Besale* ceremony the *sidi* and *bujang pembayun* performed the dance together and recited spells to summon the spirits of their ancestors. The presence of these spirits is believed to cure the sufferer's illness and ward off disaster. Dance activities are carried out by the shaman by walking forward, backward and circular (around the patient). The patient's position is under the hall by sitting or lying down. Circular and repetitive movements are sacred, united, and symbolize an unbroken wholeness, continuous. The circle is also a depiction of the *sidi*, the host, the choir, and the wayer's servant connected to each other and unbroken because they are connected to each other.

The duration of the *Besale* ceremony is generally carried out for a night until dawn. the ADT community performs rituals at night because they believe that at night the devils spend. Scientifically, people choose to do the ceremony at night because in the morning until noon, the community conducts activities. After a few days after *Besale*, most sufferers will heal. At the time of this study, patients recovering after a few days of the *Besale* ritual healings. Although it is scientifically difficult to explain, empirical evidence shows that the healing of disease with *Besale* has been clearly seen. *Besale* is local wisdom from ADT to cure a serious illness facilitated by a shaman to summon the spirits of his ancestors to cure illnesses and keep them from calamity. Through this *Besale* ritual healing, the community indirectly gets a message related to maintaining the values between them as a socio-cultural value system. One of them is the value of collaboration, starting from the preparation of the materials used in the *Besale* to the process of carrying out the ceremony. Collaboration occurs between ADT communities and *dukun*. *Besale* ritual healing can also strengthen the relationship between the ADT communities.

The ADT communities will come together to attend the *Besale* ritual healing at the patient's house. Even though the community knows religion (like Islam) and education, *Besale* ritual is not abandoned. The community believes that everything they get, both in the form of good, bad, success or disaster, and failure comes from the gods. As a

form of appreciation and offerings to the gods and spirits,they carry out rituals according to their needs and expectations. One form of ritual that is often performed is this *Besale* ceremony.

Table 3. List of plants used in the of *Besale*ritual healing by ADT in the Nyogan Village, Jambi Province, Indonesia

Plant family and species	Vernacular name	Annual / perenial	Part of used	Used
Amaranthaceae				
<i>Celosia argentea</i> L.	Tangkal merah	Annual	Flowers	Ornament of balai
Areaceae				
<i>Areca catechu</i> L.	Pinang	Perennial	Midrib, flowers and fruits	Lamina of leaf as ornament and fruit as whistle
<i>Cocos nucifera</i> L.	Kelapa	Perennial	Leaves	Toys as “bird”
<i>Elaeis guineensis</i> Jacq.	Sawit	Perennial	Fruits	Oil
<i>Eleiodoxa conferta</i> (Griff.) Burret	Asam payo	Perennial	Stem and young leaves	Ornament and <i>Balai</i> material
Cyperaceae				
<i>Actinoscirpus grossus</i> (L.f.) Goetgh. & D.A.Simpson	Rumbe	Annual	Leaves	Ornament of <i>Balai</i>
Lamiaceae				
<i>Ocimum basilicum</i> L.	Selasih	Annual	Flowers	Offering
Moraccac				
<i>Artocarpus integer</i> (Thunb.) Merr.	Nangka	Perennial	Leaves	Ornament of <i>Balai</i>
Musaceae				
<i>Musa paradisiaca</i> L.	Pisang	Perennial	Stem and leaves	Binding rod and base of offerings
Oleaceae				
<i>Jasminum sambac</i> (L.) Aiton	Melati	Annual	Flowers	Offerings
Pandanaceae				
<i>Pandanus amaryllifolius</i> Roxb.	Pandan	Annual	Leaves	Ornament of <i>Balai</i>
Piperaceae				
<i>Piper betle</i> L.	Sirih	Perennial	Leaves	Food
Poaceae				
<i>Bambusa vulgaris</i> Schard	Bambu kuning	Perenial	Stem	Stick
<i>Oryza sativa</i> L.	Padi Juwa da	Annual	Friuts	Ornament of <i>Balai</i>
<i>Oryza sativa</i> L. var.	Wajik, cace and	Annual	Fruits	Offerings
<i>Glutinosa</i>	lemang			
<i>Panicum virgatum</i> L.	Rumput telebung	Perenial	All parts	Ornament of <i>Balai</i>
Rubiaceae				
<i>Ixora</i> sp.	Asoka	Annual	Flowers	Offerings
<i>Uncaria gambir</i> (W. Hunter) Roxb.	Gambir	Perennial	Sap	Food
Styracaceae				
<i>Styrax benzoin</i> Dryander	Kemenyan	Perennial	Sap	Scent
Zingiberaceae				
<i>Curcuma longa</i> L.	Kunyit	Annual	Rhizome	Resources of colour
<i>Globba pendula</i> Roxb.	Pedas kancil	Annual	Flowers	Offering

Plant used in *Besale* ritual healing

The ADT was utilizing plants obtained from the surrounding environment for the *Besale* ritual healing. Plant parts were used in the ritual, such as flowers, leaves, stems, and fruit. Some the local communities (not ADT) in the neighborhood such as the Malay ethnic in Palembangdid the *Besale*, especially for the people who are already desperate with medical treatment, but the ritual leader is conducted by the ADT. The *Besale* ritual healing involves various components of the ADT community whose task is to prepare all the needs in the ritual. Healing in Basale is strongly influenced by the availability of overall requirements.

This research showed as many as 21 plant species belonging 20 genera, and 13 families have been used by Anak Dalam Tribe in *Besale* ritual healing (Table 3). This research is the first to report the use of plant species in BRH. This result is different from Kurnian & Syafri (2018), which only explained the process of besale without mentioned the use of plants in this ritual.

Parts of plant used in *Besale* ritual healing

The parts of the plant used in BRH are leaves, fruits, sap, stem, rhizome, midrib, steam, leave, and all parts (Figure 3). The most widely used is flowers (six species), followed by leaves (five species) and fruits (four species).

The plants used in the BRH are fresh materials, which are burned, smoked, hung, and eaten during the ritual.

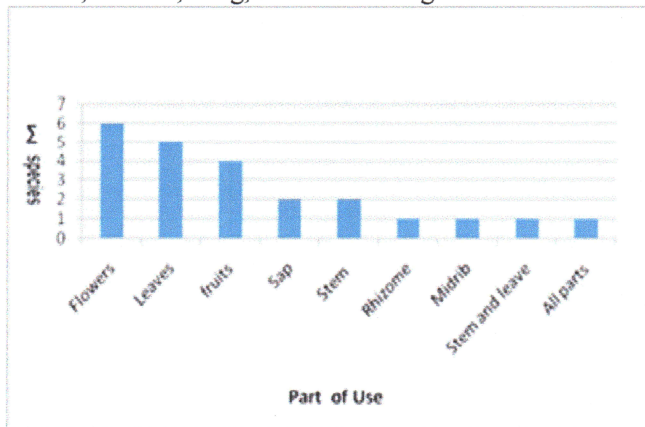


Figure 3. The relationship between the number of species and the parts of the plant used for Besale ritual healing

Discussion

The ADT is one of the indigenous ethnic groups living on the island of Sumatra and is considered the first tribe to inhabit the Province of Jambi (Effendi and Purnomo 2020). The Anak Dalam tribe is often referred to as the *Orang Kubu*, *Orang Rimbo* and *Orang Kelam* (Ahat and Auliahadi 2018). The *Orang Kubu* in Malay has two meanings of hiding places and stupid, so this title began to be abandoned because it was considered rude, while *Orang Rimbo* has the meaning of humans who live in the forest according to ADT customs (Ahat and Auliahadi 2018), but ADT is considered to be more popular in the community. The ADT is rich in local knowledge, especially the use, cultivation, and introduction of *jernang* (*Daemanorops* spp.) (Sulasmai et al. 2012), rattan (Mairida et al. 2016), and *jelutung* (*Dyera* spp.) (Aminah et al. 2016). These plants become their primary income.

The ADT utilizes forest products and hunting as a livelihood. They believe in mystical things that are considered sacred as ancestral heritage (Effendi and Purnomo 2020), which are considered as their identities (Harnov et al. 2017). Most of ADT live semi-nomadic or nomadic (Ahat and Auliahadi 2018). The *melangun* (moving to a new location or leaving an old location) is done when a relative or citizen dies, avoids the enemy, and opens a new field. The ADT house or residence is called *sesudungon* (small stage huts) and *rumahgodong* (a large-sized hut) made of wood (floors, poles, walls) while the roof is made from leaves (Khamdevi 2019). Its language, customs, matrilineal familial inheritance system is similar to Minangkabau ethnicity in West Sumatra (Khamdevi 2019), so ADT is thought to be originated or related to Minangkabau ethnicity (Pratama & Auliahadi 2019).

The BRH has the meaning of cleansing the souls of people who are sick due to evil spirits that reside in a person and the cultural heritage of ADT in non-medical treatment (Kurniawan dan Syafri 2018; Sinaga dan Rustaman 2015). The besale ritual healing is closely related to the beliefs of animism and the unseen soul (Kurniawan

and Syafri 2018). The implementing BRH requires a lot of material so that the costs are relatively expensive, especially when viewed from the income and profession of ADT as a gatherer (gathering and hunting to make ends meet). The ADT considers that if a family member or a sick relative is a sign that the deity has brought disaster down, so the ceremony is a sacred ceremony (Kurniawan and Syafri 2018). Hariyadi and Ticktin (2012) stated that to maintain their health, local communities in Jambi have a harmonious relationship between humans, nature, and invisible beings. Silalahi et al. (2015) said that supra-natural disease is a disease caused by a supra-natural spirit, karma, and bad attitude from someone, for example, hungry edema. Hungry edema is believed by the Simalungun Batak sub-ethnic tribe of North Sumatra as a result of stealing. There are also several tribes in Indonesia who treat disease by magic using one species of the plant directly without doing a traditional ritual, such as Batak Toba tribe, for example, using seeds from the *Eurycoma longifolia* (Silalahi and Nisyawati 2015).

Various local communities in Indonesia have been long used plants in rituals such as the Sarampas community in the Jambi, Tajio, Malays, Benuaq Dayak, Seberuang Dayak, Kayan Dayak, and Kenduri Siko (Andesmora et al. 2017; Fadilah et al. 2015; Falah et al. 2013; Hariyadi and Ticktin 2012; Hasanah et al. 2014; Rahyuni et al. 2013; Takoy et al. 2013). When viewed from the part used in *Besale* it is dominated by flowers (34.61%). The use of flowers in rituals is thought to be related to the proverb or the ADT saying, namely *ado rimbo ado bungo, ado bungo ado dewa* (there is a forest, there are flowers, there are flowers, there are gods). Empirically various ethnic groups in Indonesia such as Bali and Java utilize various flowers in traditional and religious ceremonies such as *Plumeria* sp. and *Clitoria ternatea* flowers. Purwanti (2017) found something different in the Saluan Tribe in Central Sulawesi, which used more stems and leaves for traditional rituals. In this healing ritual besale most plant species are used as ritual offerings and symbols such as.

The *Besale* ritual healing is local wisdom by Anak Dalam Tribe to treat severe illnesses through a ceremony to release evil spirits that disturb sufferers by utilizing plants as offerings and built of ritual ornaments. A total 21 species belonging 12 families, have been used in the besale ritual healing by Anak Dalam Tribe in Nyogan, Jambi Province. The most widely used plant parts are flower organs, with a percentage of 34.61%. The use of plants for the *Besale* ritual is by burning, stirring, hanging, and eating directly.

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