

Types of plants that are used for postpartum care and conservation efforts in Singkil Subdistrict

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Abstract. Inventory of postpartum care plants is a collection of types of plants used by the community in healing postpartum care. This study aims to find out the types, parts, and ways of processing plants used in postpartum care as well as conservation efforts made to plants that have the potential as postpartum care in Singkil District, Aceh Singkil Regency. The research was conducted from July until August 2020, and data was collected using a qualitative descriptive method with structural observations and interviews. The data source taken was 50 respondents consisting of 10 physicians, 10 midwives, and 30 mothers who had given birth. Data analysis is done descriptively using a qualitative approach. The results of the study obtained 31 species of plants used for postpartum care, parts of plants used to consist of fruit, seeds, stems, flowers, leaves, tubers, and rhizomes, the processing were carried out by boiling and grinding.

Keywords: inventory, postpartum, medicinal plants, conservation efforts

INTRODUCTION

Medicinal plants are plants that one or all parts of the plant contain active substances that are efficacious for health that can be used as a cure for the disease [1]. One of the benefits of medicinal plants is used for postpartum care. Postpartum care is the treatment of women after maternity until the reproduction system is back to normal, the duration of treatment is approximately 6-8 weeks [2]. Commonly Acehnese still uses traditional medicines that are formulated with various medicinal plants for postpartum care [3].

Aceh Singkil regency is one of the regencies in Aceh Province whose people still uphold the traditions of the past, including the use of processed plants as traditional medicine. However, not all people, in general, know the types of plants and how to process them to become medicine.

Previous research on the inventory of plant species used for postpartum care has been widely conducted [3,4,5]. The studies just focus

on the types of plants and have not discussed in detail the use of medicinal plants for postpartum care.

This research was conducted to find out the types, parts, and ways of processing plants used in postpartum care, as well as conservation efforts. Types of medicinal plants that are widely found in the Singkil Subdistrict, Aceh Singkil Regency need to be studied in more detail, especially those used by the community in postpartum care.

METHODOLOGY

Time and Place of Research

The research was conducted in Singkil Subdistrict, Aceh Singkil Regency at 10 village namely Pulo Sarok, Pasar Singkil, Selok Aceh, Pemuka, Suka Damai, Suka Makmur, Siti Ambia, Kilangan, Ranto Gedang, Takal Pasir. The research was conducted in Juli until August 2020. The research map location can be seen in Figure 1.

Approaches and Types of Research

The approach in this research was a qualitative approach with the type of research that is descriptive research.

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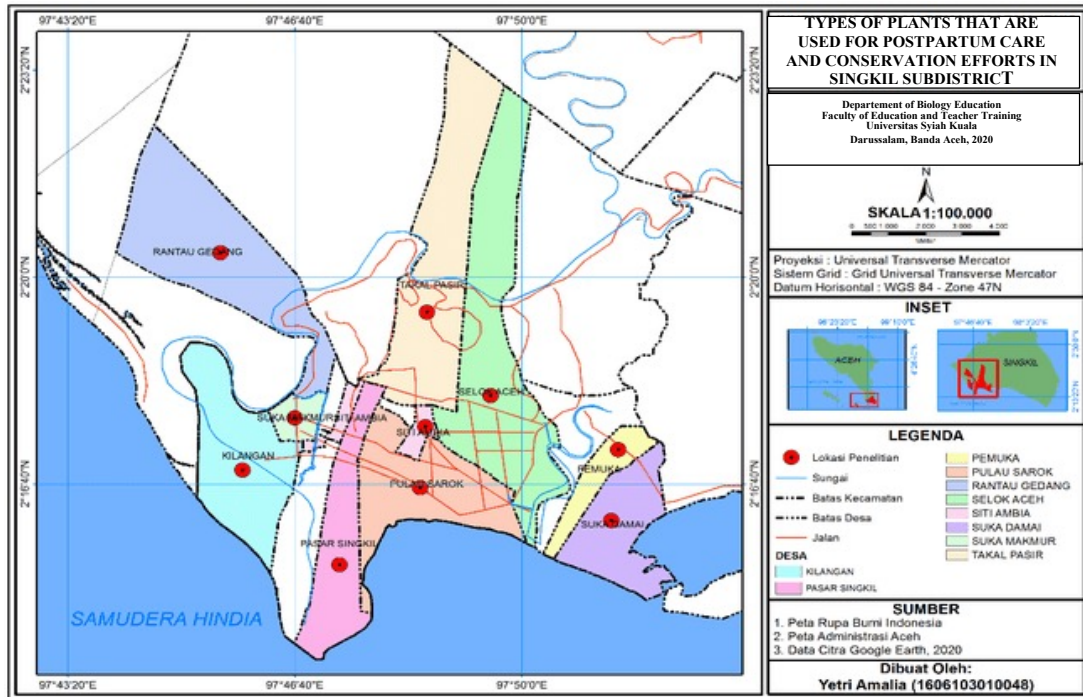


Figure 1. Research Map Location

Research Methods

The method used in this study is a qualitative descriptive method with data collection techniques conducted by observation and structural interview. Data retrieval is taken by purposive sampling. The data source took as many as 50 respondents, consisting of 10 physicians, 10 midwives, and 30 mothers who had given birth.

Data Collection

Data collection is conducted with structured interviews, observations, and documentation. The data were directly collected by providing a guiding question on the interview list. Observations are made by direct observation, recording, and documenting the types of medicinal plants that can be used in postpartum care in Singkil Subdistrict. Documentation was collected during the study such as photos of plants and respondents. All types of plants used for postpartum medicine are identified by observing morphological features and described in detail. The description of the plant part includes the root part, stem, leaf, flower, and fruit. Identification of medicinal plants refers to the book of a list of Indonesian medicinal plants [14].

Data Analysis

Each data is analyzed descriptively using a qualitative approach and the data obtained are displayed in the form of a table. The table contains information about the local names, scientific names, and families, the parts of a

plant are used, plant benefits, and the way of processing plants used for postpartum care.

RESULTS AND DISCUSSION

Types of Plants used in Postpartum Care

This research found 31 species belonging to 24 families used as postpartum medicine. The number of plant species obtained from each family can be seen in the Table. 1.

Based on Table 1 it is known that found two dominating families namely the Zingiberaceae and Apiaceae found which every four species. Asteraceae, Euphorbiaceae, Lamiaceae, Liliaceae, and Piperaceae were found in two species and 13 other families were found in one species. Zingiberaceae found four species namely *Zingiber officinale* Rosc, *Curcuma longa* Val, *Alpinia galanga* L., and *Curcuma xanthorrhiza* Roxb. Zingiberaceae rhizomes store many essential oils and alkaloids that are efficacious as medicine [6]. Apiaceae is also found in as many as four species namely *Cuminum cyminum* L., *Nigella sativa* L., *Coriandrum sativum* L., and *Centella asiatica* L.

This research found five families each belonging to 2 species. *Eclipta alba* L., and *Blumea balsamifera* L. belonging to Asteraceae. Leaves and spice leaves of *Eclipta alba* L. contain flavonoid compounds [7,8].

There are 13 other families which each belong to one species, namely the *Alternanthera brasiliensis* L. belonging to Amaranthaceae that

contains tannins, saponins, and flavonoids [9]. Found species was *Ananas comosus* L. belongs to Bromeliaceae contains the bromelain enzyme [10]. Found species *Carica papaya* L. belongs to Caricaceae. Commelinaceae found species *Commelina diffusa* Burm., the leaves contain saponins, polyphenols, and flavonoids [11].

Fabaceae found species of *Tamarindus indica* L. *Pandanus amaryllifolius* Roxb. belongs to Pandanaceae, which has a chemical content of alkaloids, flavonoids, saponins, tannins, and polyphenols that serve as antioxidant substances [12]

Plant Parts Used for Postpartum Care

The percentage of plant parts used in postpartum care in Singkil Subdistrict can be seen in Figure 2.

Based on Fig. 2 parts of the plant that are widely used for postpartum care are leaves as much as 50% of 18 types of plants. The leaves' tissues contain tannins, alkaloids, essential oils that are useful as medicine [13]. The second most used part of the plant is rhizomes, seeds, and stems as much as 11%. Tubers are used as much as 6% and flowers as much as 5%. The lowest percentages were roots and fruits because these parts were rarely used by people.

Table 1. Plant species in postpartum care and conservation efforts in Singkil Subdistrict

No.	Local Names	Region Names	Scientific Names	Families
1	Puding Hitam	Puding Hitam	<i>Alternanthera brasiliana</i> L.	Amaranthaceae
2	Jintan Putih	Jarah Putih	<i>Cuminum cyminum</i> L.	
3	Jintan Hitam	Jarah Hitam	<i>Nigella sativa</i> L.	Apiaceae
4	Ketumbar	Katumbar	<i>Coriandrum sativum</i> L.	
5	Kaki Kuda	Pigago	<i>Centella Asiatica</i> L.	
6	Urang aring	Rajo-Rajo	<i>Eclipta alba</i> L.	Asteraceae
7	Sembung	Capo	<i>Blumea balsamifera</i> L.	
8	Nenas	Naneh	<i>Ananas comosus</i> L.	Bromeliaceae
9	Pepaya	Batik	<i>Carica papaya</i> L.	Caricaceae
10	Gewor	Au-Au	<i>Commelina diffusa</i> Burm.	Commelinaceae
11	Meniran	Si Dukung Anak	<i>Phyllanthus urinaria</i> L.	Euphorbiaceae
12	Patikan Kebo	Besusu	<i>Euphorbia hirta</i> L.	Euphorbiaceae
13	Asam Jawa	Asam Jawo	<i>Tamarindus indica</i> L.	Fabaceae
14	Piladang	Piladang	<i>Plectranthus scutellarioides</i> L.	Lamiaceae
15	Kumis Kucing	Kumis Kucing	<i>Orthosiphon aristatus</i> Blume.	
16	Kayu Manis	Kayu Manih	<i>Cinnamomum burmannii</i> Ness	Lauraceae
17	Bunga Lawang	Bungo Lawang	<i>Illicium Verum</i> Hook	Liciaceae
18	Bawang Putih	Bawang Putih	<i>Allium sativum</i> L.	Liliaceae
19	Bawang Merah	Bawang Merah	<i>Allium cepa</i> L.	
20	Pacar Kuku	Inei	<i>Lawsonia inermis</i> L.	Lythraceae
21	Buah Pala	Buah Palo	<i>Myristica fragrans</i> Houtt	Myristicaceae
22	Pandan Wangi	Pandan	<i>Pandanus amaryllifolius</i> Roxb.	Pandanaceae
23	Suruhan	Timah-timah	<i>Peperomia pellucida</i> L.	
24	Sirih	Sirih	<i>Piper betle</i> L.	Piperaceae
25	Serai Wangi	Sari Pulo Pinang	<i>Cymbopogon nardus</i> L.	Poaceae
26	Rumput Mutiara	Jarum-Jarum	<i>Oldenlandia corymbosa</i> L.	Rubiaceae
27	Legundi	Silagundi	<i>Vitex trifolia</i> L.	Verbenaceae
28	Jahe	Sipadeh	<i>Zingiber officinale</i> Rosc	
29	Kunyit	Kunyik	<i>Curcuma longa</i> Val	Zingiberaceae
30	Lengkuas	Langkueh	<i>Alpinia purpurata</i> Vieill.	
31	Temulawak	Temulawak	<i>Curcuma xanthorrhiza</i> Roxb.	

Table 2. Species of the cultivated plant by singkil subdistrict people

No.	Species Names	Scientific Name	Families
1.	Jahe	<i>Zingiber officinale</i> Rosc	Zingiberaceae
2.	Kunyit	<i>Curcuma longa</i> Val	Zingiberaceae
3.	Pacar Kuku	<i>Lawsonia inermis</i> L.	Lythraceae
4.	Lengkuas	<i>Alpinia galanga</i> L.	Zingiberaceae
5.	Sirih	<i>Piper betle</i> L.	Piperaceae
6.	Pandan Wangi	<i>Pandanus amaryllifolius</i> Roxb.	Pandanaceae
7.	Serai Wangi	<i>Cymbopogon nardus</i> L.	Poaceae
8.	Piladang	<i>Plectranthus scutellarioides</i> L.	Lamiaceae
9.	Kaki Kuda	<i>Centella asiatica</i> L.	Apiaceae
10.	Puding Hitam	<i>Alternanthera brasiliensis</i> L.	Amaranthaceae
11.	Kumis Kucing	<i>Orthosiphon aristatus</i> Blume.	Lamiaceae
12.	Pepaya	<i>Carica papaya</i> L.	Caricaceae
13.	Nenas	<i>Ananas comosus</i> L.	Bromeliaceae
14.	Teumulawak	<i>Curcuma xanthorrhiza</i> Roxb.	Zingiberaceae
15.	Legundi	<i>Vitex trifolia</i> L.	Verbenaceae
16.	Sembung	<i>Blumea balsamifera</i> L.	Asteraceae

Table 3. Species of plant that bought by singkil subdistrict people

No.	Species Names	Scientific Names	Families
1.	Pala	<i>Myristica fragrans</i> Houtt.	Myristicaceae
2.	Kayu Manis	<i>Cinnamomum burmannii</i> Ness.	Lauraceae
3.	Bunga Lawang	<i>Illicium Verum</i> Hook	Liliaceae
4.	Bawang Putih	<i>Allium sativum</i> L.	Liliaceae
5.	Bawang Merah	<i>Allium cepa</i> L.	Liliaceae
6.	Jintan Putih	<i>Cuminum cyminum</i> L	Apiaceae
7.	Jintan Hitam	<i>Nigella sativa</i> L.	Apiaceae
8.	Ketumbar	<i>Coriandrum sativum</i> L.	Apiaceae
9.	Asam Jawa	<i>Tamarindus indica</i> L.	Fabaceae

Table 4. Species of plants that grow wild

No.	Species Name	Scientific Name	Families
1.	Suruhan	<i>Peperomia pellucida</i> L.	Piperaceae
2.	Rumput Mutiara	<i>Oldenlandia corymbosa</i> L.	Rubiaceae
3.	Gewor	<i>Commelina diffusa</i> Burm.	Commelinaceae
4.	Urang aring	<i>Eclipta alba</i> L.	Asteraceae
5.	Meniran	<i>Phyllanthus urinaria</i> L.	Euphorbiaceae
6.	Patikan Kebo	<i>Euphorbia hirta</i> L.	Euphorbiaceae

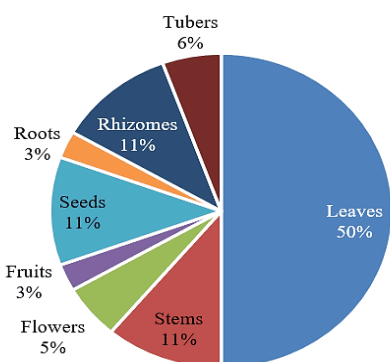


Figure 2. Percentage of plant parts used in Singkil Subdistrict

Plants Processed for Postpartum Care by Singkil Subdistrict People

The percentage of plant processing for postpartum care is described in Figure 3.

Fig. 3 shows that the most commonly used way of processing plants for postpartum care is by grinding as much as 57% and the rest using boiling as much as 43%. The use of plants for the treatment of the outer body can be distinguished into three ways, namely lampok, pilis and bilas. The three types of treatments are used on different parts of the body, lampok is the smearing of the herb on the stomach, pilis is the smearing of the herb on the forehead while the bilas is the result of boiling the herb that is rinsed or washed on the reproductive organs or vagina.

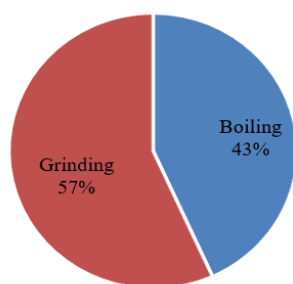


Figure 3. Percentage of plant processing methods for postpartum care in Singkil Subdistrict

Postpartum care in addition to smeared there is also a treatment in the drink, based on the results of interviews with respondents, the processed plants serve as a medicine which is useful for restoring and increasing stamina, to revert the original form, remove the remains of dirty blood, and believed to make youth and resistant to disease. Medicine for the treatment of the inner body is raw drinks and pot drinks. Both drugs are taken at different times where raw drinks are taken in the morning for 9 days, while pot drinks are taken for 45 days. processing is carried out by boiling and grinding.

Conservation Efforts

The interview with mothers who have done postpartum care showed there are to obtain postpartum care plants namely by planting themselves or cultivating, buying in the market, and growing wild in the garden or house. The percentage of plant acquisition sources used for postpartum care in Singkil Subdistrict can be seen in Fig. 4.

Based on Fig. 4 can be seen that mothers in Singkil Subdistrict obtain plants for postpartum care at most by planting themselves that is as much as 48%, then by buying as much as 26% and wild plants as much as 26%. Conservation efforts carried out by mothers in Singkil Subdistrict are to make the area around the house useful by planting the medicinal plants because every time they need the plants were available.

Among all of the 31 species, 16 species can be cultivated in people's houses area. Types of plants cultivated by the community in Singkil Subdistrict can be seen in Table 2.

Table 2 shows that plants cultivated by the people of Singkil, the plants are easy to plant and easy to grow in the cage of the people's house. There are 9 types of plants that be obtained in the market (Table 3). The people of

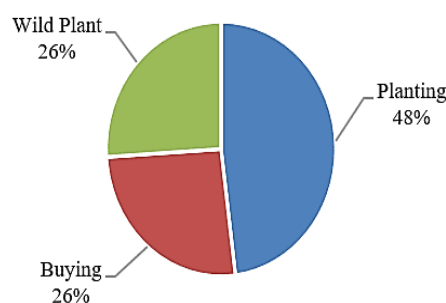


Figure 4. The percentage of plant acquisition sources used for postpartum care in Singkil Subdistrict

Singkil have to purchase the plants because these plants are not easy to grow in all places and have required certain climatic conditions. While the types of plants that grow wild can be seen in Table 4.

Based on Table 4, there are six species grown around the house without being planted by people in Singkil District, it is known as the plants that grow wild and people used them as postpartum care.

CONCLUSION

The results showed based on the interviews and observations conducted by the people of Singkil Subdistrict, Aceh Singkil regency still utilizes medicinal plants in postpartum care. The study was obtained 31 species of plants used for postpartum care, part of the plants used consists of fruits, seeds, stems, flowers, leaves, tubers, and rhizomes by the boiled and ground processing. The conservation efforts by people in Singkil Subdistrict are by cultivating the possible postpartum care plants around the house

REFERENCE

- [1] Kusuma, F.R.; Zakky, B.M. 2005. *Wild plants efficacious medicine* (PT. AgroMedia Library: South Jakarta).
- [2] Rosyati, H. 2017. *Teaching books for maternity midwifery care* (Faculty of Medicine and Health-an Muhammadiyah University of Jakarta: Jakarta).
- [3] Zumaidar, Z.; Saudah, S.; Rasnovi, S.; Harnelly, E. 2019. Tumbuhan sebagai obat tradisional pasca melahirkan oleh suku Aceh di Kabupaten Pidie. *Al-Kauniyah: J. Biol.* **12** (2) 157 - 163.
- [4] Fuadi, T.M. 2018. Etnobotani dan identifikasi tumbuhan obat bagi ibu pasca melahirkan di Desa Krueng Kluet Kecamatan Kluet Utara Aceh Selatan. In

- Pros. Sem. Nas. Biotik* **5** (1) 280-288
- [5] Prastiwi, R.S. 2018. Pengobatan tradisional (jamu) dalam perawatan kesehatan ibu nifas dan menyusui di Kabupaten Tegal. *J. Siklus* **7** (1) 263 - 267.
- [6] Washikah, W. 2016. Tumbuhan zingiberaceae sebagai obat-obatan. *Ser. Sainia* **4** (1) 35 - 43.
- [7] Berlian, R.M.; Busman, H; Mandala, Z. 2014. Uji efektivitas antibakteri ekstrak etanol daun urang aring (*Eclipta alba* L. Hassk) terhadap pertumbuhan bakteri *Escherichia coli* secara in vitro. *J. Ilmu Kedokteran Kes.* **1**(2) 135 - 142.
- [8] Mantra, I.B.K.; Putra, I.N.K.; Wrsiat, L.P. 2020. Characterization of bioactive compounds sembung leaf extract (*Blumea balsamifera* (L) DC) of several types of solvents. *Sci. J. Food Technol.* **6** (1) 54 - 65.
- [9] Wahyu, A.; Ulung, G. 2014. *493 recipes herbal herbs efficacious ffor natural beauty inside and out* (PT. Gramedia Main Library: Jakarta).
- [10] Rahmat, D.; Nurhidayati, L.; Bathini, M.A. 2016. Peningkatan aktivitas antimikroba ekstrak nanas (*Ananas comosus* (L.). Merr) dengan pembentukan nanopartikel. *J. Sains Kes.* **1**(5) 236-244.
- [11] Widhyastini, I.M.; Yuliani, N.; Nurilmala, F., 2017. Identifikasi dan potensi gulma di bawah tegakan Jati Unggul Nusantara (JUN) di kebun percobaan Universitas Nusa Bangsa, Cogreg, Bogor. *J. Sains Nat.* **2**(2) 186-200.
- [12] Margaretta, S.; Handayani, S. D; Indraswati, N., Hindarso, H. 2013. Ekstraksi senyawa phenolic *Pandanus amaryllifolius* roxb. sebagai antioksidan alami. *Widya Teknik* **10** (1) 20-30.
- [13] . Larasati, A.; Marmaini, M.; Kartika, T. 2019. Inventarisasi tumbuhan berkhasiat obat di sekitar pekarangan di kelurahan Sentosa. *Indobiosains* **1**(2) 76-87.
- [14] Darlimartha, S. 2003. *Atlas of Indonesian medicinal plants volume 1,2,3* (Puspa Swara: Jakarta).