



Traditional Knowledge of Women from the *Ammatoa Kajang* Custom for COVID-19 Mitigation in Bulukumba Regency, South Sulawesi

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Abstract. The condition of the COVID-19 pandemic is difficult to predict when it will end. Community resilience is needed in the face of this pandemic. Indigenous women have traditional knowledge in mitigating the COVID-19 pandemic. Indigenous people believe traditional knowledge as potential resilience that can overcome various diseases, especially COVID-19 and the like. However, this traditional knowledge has not been widely published. An in-depth study is needed to obtain traditional knowledge, especially the *Ammatoa Kajang* indigenous people in Bulukumba Regency. This study aims to determine the resilience of indigenous peoples in mitigating the COVID-19 pandemic. The research method was carried out through literature study, observation, and interviews. The data that has been obtained were analyzed by descriptive method. The results show that traditional knowledge of indigenous women has resistance to the COVID 19 pandemic from herbal plants. Traditional knowledge is in the form of recognizing, cultivating, and utilizing herbal plants for physical fitness or maintaining health and treating various diseases, including symptoms and exposure to COVID-19. This introduction is an ancestral heritage from generation to generation. Cultivation, taking as needed from the forest's outskirts and letting it grow naturally and planted in the yard. When using it, attach the leaves to the body area, drink boiled water from plants, and eat raw or processed vegetables.

Keywords: Traditional Knowledge · Women · *Ammatoa Kajang* · COVID-19

1 Introduction

It is difficult to predict when the COVID-19 pandemic will end. Since March 2020, especially in South Sulawesi, the COVID-19 pandemic has begun to expose the public. Until now, the COVID-19 pandemic has not been confirmed to have disappeared entirely. Even though the National Community Activity Restrictions (PPKM) have begun to be relaxed, there are still fears that the next pandemic will emerge. M Darwin Fatir [1] in AntaraNews.com, the South Sulawesi Province COVID-19 Handling, and Acceleration

Task Force, launched the number of new patients exposed to Corona in 24 regencies and cities, increasing by 511 new patients. Based on the development of information on the COVID-19 situation, Saturday, data as of July 9, 2021 (477), there was an accumulation of 67,279 confirmed positive cases with the addition of 511 new patients from 2,248 specimens examined. Then Makassar City made a significant contribution, as many as 238 cases, followed by Gowa Regency 35 cases, Jeneponto 29 cases, Sinjai 26 points, East Luwu 25 cases, Tana Toraja 22 cases, and Sidrap 21 cases. Parepare City and North Luwu Regency 16 cases, Palopo City 15 cases, Soppeng Regency 14 cases, Pangkep Regency and Pinrang Regency 13 cases. Selayar Islands Regency 12 cases, Maros 11 cases, Wajo 3 cases, and Takalar 2 new cases. This condition demands community resilience in adapting and mitigating the COVID-19 pandemic. Moreover, there are already predictions that the COVID-19 pandemic will appear, which is the third wave, as stated by the Minister of Health of the Republic of Indonesia [2].

One community group that has the resilience to face the COVID-19 pandemic in South Sulawesi is the *Ammatoa Kajang* indigenous community, especially women. Indigenous women have traditional knowledge in mitigating the COVID-19 pandemic. Indigenous people believe traditional knowledge as potential resilience that can reduce various diseases, including COVID-19 and the like. However, this traditional knowledge has not been widely published, either at the district, provincial or national levels, let alone internationally.

Therefore, the author conducted an in-depth study to obtain information about women's traditional knowledge of the *Ammatoa Kajang* custom in the Bulukumba Regency. This study aims to determine the resilience of indigenous peoples in mitigating the COVID-19 pandemic. So that can be obtained an overview of how indigenous women with their traditional knowledge make efforts to minimize the spread of the COVID-19 pandemic. Bulukumba.

2 Methods

This research includes the time of data collection, compilation, and analysis which was carried out for 3 (three) months—starting from September to November 2021. It's located at *Ammatoa Kajang* Custom, Bulukumba regency, South Sulawesi, Indonesia (Fig. 1). Data collection was carried out through library research, observation, and interviews/Focus Group Discussions other than those living in Tana Toa Village, Kajang District, Bulukumba Regency, also outside the research location. Interviews were conducted with the indigenous people of *Ammatoa Kajang* as the research area and outside the research location. Respondents were selected with criteria, knowing and having experience regarding traditional knowledge. The data that has been obtained were analyzed by descriptive method—analysis of women's traditional knowledge from adat in mitigating the COVID-19 pandemic, using existing traditional knowledge.

The map above is the location or area of customary women's management in the cultivation and utilization of herbal plants.

Secondary data was obtained from the Village Office and the literature study. While the primary data was obtained from observations and interviews. Observations were made by visiting and observing the research location. Based on the availability of time

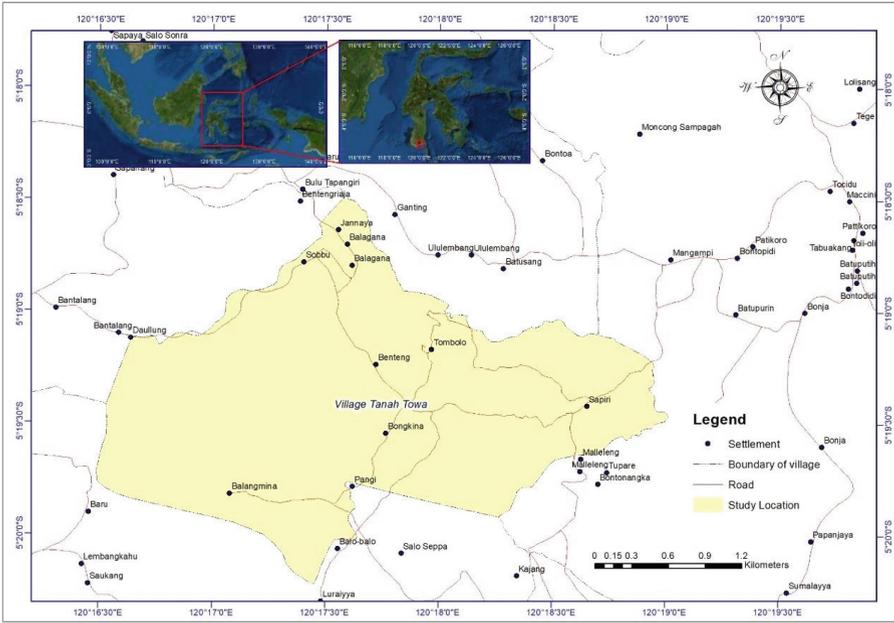


Fig. 1. Map of study area.

and energy, the data and information collected through interviews were conducted with key informants. Interviews were conducted with key informants, selected based on the relevance of their knowledge and experience by the author's data and information needs.

3 Result and Discussion

According to the Bulukumba Regency Regional Regulation Number 9 of 2015 [3], the Customary Law community, hereinafter referred to as MHA, is a group of people who traditionally inhabit certain geographic areas in the State of Indonesia because of their ties to ancestral origins, a strong relationship with the land. Territory, natural resources, have customary government institutions and order customary law in their traditional territory. MHA *Ammatoa Kajang* is a group of people who traditionally live in *Ilalang Embayya* and there are also those who live in *IPantarang Embayya* who carry out *Pasang Ri Kajang*. Both are located in the administrative area of Tana Toa Village, Kajang District, Bulukumba Regency. The distance from the center of the capital of Bulukumba Regency is approximately 60 km, and the distance from the center of the capital city of South Sulawesi Province or Makassar City is about 250 km. The area can be reached by using two wheels or four wheels with a travel time of approximately 5 h from the capital of South Sulawesi Province and the capital of Bulukumba Regency about 1 h.

Geographically, the area is an undulating hilly area. In some areas of the village, you can see the mountains of Lompobattang-Bawakaraeng and the Bantaeng Valley in the west. In addition, to the east, Bone Bay is also visible with the cluster of Nine Islands.

Judging from the topography, this location is located at an altitude of 50 - 200 m above sea level with an average rainfall of 5,745 mm/year. The temperature there is between 13–29 degrees Celsius with 70% humidity.

Administratively, Tana Toa Village is bordered by several areas, and namely, in the north, it is bordered by Batunilamung Village; to the south, it is bordered by Bonto Baji Village; in the east, it is bordered by Malleleng Village; in the west bordering the village of Pattiroang. The administrative division also divides the area of Tana Toa Village where the *Ammatoa Kajang* indigenous people live, into 13 RK (Rukun Keluarga) and 19 RT (Rukun Tetangga) which are grouped into nine hamlet areas, namely Hamlet Balagana, Hamlet Jannaya, Sobbu Hamlet, Dusun Benteng, Pango Hamlet, Bongkina Hamlet, Kuncio Hamlet, Luraya Hamlet, and Balambina Hamlet.

According to the 2020 Village and Sub-District Potential data obtained from the Tana Toa Village Office, the population is 7,576 people. The number of family heads (after this referred to as KK) is 1,376 consisting of 4,264 women and 3,306 men. Their livelihoods are private lecturers, farm laborers, casual daily laborers, agricultural service laborers, other laborers, alternative medicine experts, traditional healers, housewives, and unemployed—especially the significant number of unemployed 4,121 people (1,296 men and 2,825 women). If 1,500 housewives are added, then there are 4,328 unemployed women or 83.05% unemployed (there are women). While those who work are only 861 people or 17.28% (including one person who works as a private lecturer).

The use of plants for health has been widely studied for their use in everyday life. Usbar et al. [4] stated that 43 types of plants are often and routinely used by the *Kajang* indigenous community around the *Kajang* customary forest area, a habitus of herbs, shrubs, and trees, etc., some lianas. Its use is still traditional, so the processing of plant ingredients is effortless, namely by cooking or using it directly. Similar to what was stated by Muhafidz [5], Indigo fera plants, besides animal feed, can also be used for health. However, the results of these two studies have not revealed the traditional knowledge of *Kajang* women. For this reason, it is very important for the public to know how the traditional knowledge of indigenous women is in cultivating, managing and utilizing herbal plants, in addition to other activities. The types of herbal plants referred to in Table 1.

Herbal plants are functional foods that are beneficial for health [6–8]. Women play a role in medicinal plants and have become a tradition, as stated [9]. Women have a strategic role in increasing family food security, including indigenous women [10].

Women can play a role in all activities, ranging from roles in the household (domestic), agriculture, gardening, raising livestock and even to identify and utilize plant species. Besides that, indigenous women also have the resilience to mitigate the COVID-19 pandemic through their traditional knowledge. It was also conveyed by Syahni [11] that in the villages of indigenous peoples, there is still a lot of knowledge about traditional medicines to increase immunity. Traditional knowledge is knowledge developed by indigenous peoples or intellectual works based on tradition. This knowledge includes cultivating and processing plants, medicines, arts, and recipes for food and drinks. This was conveyed by Prof. M. Hawin, S.H., L.L.M., Ph.D., in his inaugural speech as Professor of the Faculty of Law UGM, at the UGM Senate Hall. According to him, the

Table 1. Herbal plants that are often used to treat various diseases, especially the symptoms of COVID-19.

No.	Local Name	Common name	Latin name	Parts used	Efficacy	How to Concoct
1	Paliasa	Banyan	<i>Ficus benyamina L.</i>	Leaf	Asthma medications	Boiled, then drunk while still warm
2	Linrapa	Sitting leaves	<i>Desmodium triquentrum</i>	Leaf	Medicine in	Boiled and then drunk
3	Didi bulang	Compri	<i>Symphytum officinale</i>	Fruit	Drugs purupuru, tuberculosis	The fruit is shredded until smooth then poured all over the body affected by puru-puru, for TB disease, the fruit is boiled then drank.
4	Burangga	New chinese	<i>Artemisia vulgaris L.</i>	Leaf	Wound medicine	Directly attached to the wounded part, can be boiled then drunk
5	Tambara	Spinach thorns	<i>Amaranthus spinosus L.</i>	Trunk	Back pain medication	Boiled and then drunk, can be dried then shredded to make powder, to be smeared on the waist that hurts.
6	Biccoro	Beluntas	<i>Pluchea indica [L.] Less.</i>	Leaf	Medicine in	Boiled and then drunk
7	Paliasa	Banyan	<i>Ficus benyamina L.</i>	Leaf	Asthma medications	Boiled, then drunk while still warm
8	Sumbila oto	Gout leaves	<i>Plumbago zeylanica</i>	Root	Back pain medication	The leaves are kneaded and then placed on the sore waist
9	passepempeng	Ginger	<i>Zingiber officinale</i>	Fruit	Vertigo drugs / currently also used for immunity from covid19	In a new geprek dab on the head In geprek then boiled and the water is drank
10	Raun patampulu	Leaves 40 of a kind		40 types of leaves	Recovery medicine when a new mother is out of labor	Boiled then the leaves are used compresses to the stomach and the whole body,
11	Tammu	Whiteturmeric/blackturmeric	<i>Curcumazedoaria/Cucurmacaesia</i>	fruit	Stomach pain medication	Boiled fruit and then drank
12	Sarikaja	Soursop	<i>Amnona squamosa</i>	Leaf	Cholesterol/highbloodmedi-cations	The leaves are boiled and then drank the water.
13	Kaju kuma-kuma	Bugis Wood	<i>Crocus sativus</i>	Skin	Wound medicine if sliced knife	Deep skin in mashed then applied on the wound
14	Loka stems	Banana stems	<i>Musa parsdisiaca</i>	trunk	Blood clots if a person is bleeding	The sap of banana stems is applied on the bleeding part

(continued)

Table 1. (continued)

No.	Local Name	Common name	Latin name	Parts used	Efficacy	How to Concoct
15	Passassa lahu	Chicken claws	<i>Selaginella doederleinii</i>	Leaves, stems	Dizziness medication	Boiled then drunk
16	Jarammele	Ceremai	<i>Phyllanthus acidus</i>	Leaves, seeds	Allergies, lowering heat	Ceremai seeds are ground until smooth, brewed with hot water then drunk
17	Lahira	God's leaf	<i>Gynura segetum</i>	Leaf	Lowering the heat	Boiled and then drunk, or soaked and then taped to the body of the sick

protection of traditional knowledge is essential because it is a source of knowledge related to human life that can be commercialized [12].

Indigenous women have been organized and institutionalized in the Alliance of Indigenous Peoples of the Archipelago (hereinafter referred to as AMAN) throughout Indonesia and have a secretariat in Bogor City, West Java Province. This institution has 2,386 members spread over 55 regions and is a wing of the AMAN community organization whose administration or management is in Jakarta. AMAN Women's Institute, its strategic efforts include strengthening traditional knowledge and political awareness in increasing the capacity of indigenous women as stated by the research results of Virna P Setyorini [13] that indigenous peoples, especially women, through traditional knowledge have resilience during the COVID-19 pandemic and their existence is very useful. One indigenous woman who has the resilience to the COVID-19 pandemic is the *Ammatoa Kajang* indigenous woman in Bulukumba Regency. Referring to the study results, the results of interviews with traditional women leaders *Ammatoa Kajang* also confirmed the strength of the resilience of indigenous women. *Ammatoa Kajang* indigenous women in the mitigation of COVID-19 perform the *Sungkabala* ritual (reject reinforcements). They strongly believe in the messages of the ancestors, that from time to time, it has been predicted that disease and anger will exist and hit the world. Be it natural disasters or the COVID-19 pandemic disaster.

According to them, there are 2 (two) ancestral messages that they believe, the first, saying that in 2000 and above, the country will be hit by the conflict. The conflict resembles colonialism, not from abroad but within the country itself (civil war). The message of the second ancestor, Riek sallo hattu riek ni kua garring paksiu-siu patangpulo (meaning, one day there will be 40 kinds of disease). This ancestral message is an effort to mitigate various diseases, including the COVID-19 pandemic.

In this regard, there is the term *raun patangpuloh* (meaning there are 40 types of leaves) which can be used for health, both prevention and treatment. In addition, for traditional rituals. Before use, a mantra or prayer is recited and is generally performed by a female sandro. For example, women are bathed in the morning and evening with 40 kinds of leaves after giving birth. Likewise, they use *Ruku*, *Buru*, and *Bangka* leaves to bathe if they have a fever. As for children who have a cough, the sap of castor leaves

is drunk, and the extract of pariah leaves is drunk to newborns to expel mucus. It is extraordinary if a person is sliced or splits the flesh and skin of his limbs with a knife or machete, the treatment uses Chinese bark. Herbal therapy in that way in a not too long time the flesh and skin will be reunited.

Likewise, the results of interviews with indigenous women stated that a woman named Murni was a sanro (shaman) who lived in Batunilamung Village, Kajang District. He is known to treat *Paddahu* (in Makassar society known as Pa'daukang), diseases caused by colds or the wrong sleeping position that causes body pain. In practice, *paddahu* begins by sticking soursop leaves on the patient's body that feels sick. After being affixed, the soursop leaf was kneaded and massaged into the patient's pain point. A sheet of soursop leaves that have been used, thrown through the door or window. Patients who have finished the massage will be provided with two soursop leaves to massage their pain points. The sick are also advised to take a bath using warm water to speed up the healing process of the illness. Pure got this *paddahu* treatment method from generation to generation from their ancestors. They consider soursop leaves as a plant that is rich in benefits and plant it around their house.

Especially to mitigate diseases with symptoms similar to COVID-19. According to the indigenous people of *Ammatoa Kajang*, this disease has been experienced before, which resulted in many people dying. Learning from the incident, they observed and tested herbal plants, which women generally carried out. As a result, if there are people with fever/fever and dizziness, they use herbs with young papaya shoots cooked to a boil. Then drink regularly in the morning and evening. Likewise, if you are coughing and short of breath, the treatment is to boil ginger and lemongrass. As for the sluggish body, drink the juice of white ginger that has been grated first. All medicines/herbs from nature are usually given a spell before being consumed by the female Sandro. This condition makes indigenous people rarely go to the doctor because they believe there are still medicines from traditional knowledge that can be used for prevention and treatment. Treatment and prevention of diseases that resemble COVID-19 with herbal plants is obtained from the knowledge and experience of their ancestors.

The results of the Focus Group Discussion with ten indigenous women, traditional knowledge is not new. According to them, traditional knowledge of herbal plants for disease prevention and treatment was passed down from generation to generation and revelation. Starting from identifying herbal plants found on the edges of the forest, in gardens, and home yards, carried out by women and men (for remote locations). Herbal plants are mainly in the form of shrubs and trees. Generally, they prefer or believe more in traditional ways than medical. So far, Sandro has played a woman who concocts and casts a spell on medicine, including 40 kinds of plants. Prevention of various diseases by concocting herbs, including COVID-19. For the treatment of diseases depending on the condition. In addition, all traditional rituals still use various plants. They take enough plants to use, which aims to preserve these plants. For *Tarung* plants are generally planted in the yard of the house because it is also used for natural dyes for woven sarongs in addition to stomach ache medicine. The *Tarung* plant is used as a medicine for stomach aches. Likewise, other plants such as papaya, ginger, white ginger, lemongrass, and several other plants can also be used as vegetables.

Regarding the focused discussion, it can be concluded that traditional knowledge is passed down from generation to generation in mitigating and even adapting to the COVID-19 pandemic, which indigenous women generally carry out. Start from identifying, finding, utilizing, planting, maintaining, and harvesting, especially those in the garden and yard of his house.

In line with the interviews and discussions focused on indigenous women, the *Ammatoa Kajang* indigenous people relaxed and welcomed the researchers during the observation. Both in *Ipantarang Embayya* and *Ilalalang Embayya*, it is rare to find people wearing masks. At that time, cases of the COVID-19 pandemic were increasing. According to the Village Head of Tana Toa Kajang, also *Galla Lombo* at the *Ammatoa Kajang* Traditional Institute, his party did not feel the COVID-19 pandemic. They believe in this condition because they have traditional ways to prevent and treat it. The treatment of various diseases, apart from using herbal medicine, is first prayed for by Sandro, who is generally a woman.

4 Conclusion

Women's traditional knowledge from the *Ammatoa Kajang* custom is resilient to face the COVID-19 pandemic from herbal plants. Traditional knowledge is in the form of recognizing, cultivating, and utilizing herbal plants for physical fitness or maintaining health and treating various diseases, including symptoms and exposure to COVID-19. Cultivation, taking as needed from the outskirts of the forest and letting it grow naturally and plant in the yard of the house. Utilization by attaching leaves to the body area, drinking boiled water from plants, and eating raw or processed vegetables.

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