



## Food taboo for pregnant and lactating mothers: A study on indigenous peoples in South Sulawesi

### *Makanan tabu pada ibu hamil dan menyusui: Studi pada dua masyarakat adat di Sulawesi Selatan*

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### Abstract

Indigenous people believe in and practice food taboos as part of traditional culture. Food taboos are associated with cultural beliefs and are passed on to every generation, particularly pregnant and lactating women. Food taboos in the Ammatoa Kajang and Kaluppini indigenous communities are specific to pregnant and lactating mothers. This study aimed to explore traditional knowledge and food taboos concerning maternal health among indigenous people in South Sulawesi. This study uses a qualitative method with purposive sampling. Data collection used in-depth interviews (IDIs) and focus group discussion (FGDs) guidelines. This study was conducted in Bulukumba, Enrekang Regency, South Sulawesi Province, from November 2017 to June 2018. The informants were mothers of children under five years, traditional birth attendants (TBAs), local midwives, and customary leaders. The data were analyzed in three categories: coding process, categorization, and theme generation using Dedoose. We found that these two communities believed in and practiced food taboos that could prevent them from consuming various nutritious foods that are important during pregnancy and lactation. In conclusion, food taboos were practiced by both indigenous mothers, which may have prevented individuals from ingesting a variety of nutrient-dense foods that are crucial during nursing and pregnancy.

**Keywords:** Belief, qualitative study, nutrition, taboo

### Abstrak

Masyarakat adat percaya dan mempraktikkan makanan tabu sebagai bagian dari budaya dan tradisi mereka selama ini. Makanan tabu dikaitkan dengan kepercayaan dan budaya yang diwariskan ke setiap generasi, khususnya pada ibu hamil dan ibu menyusui. Makanan tabu pada masyarakat adat Ammatoa Kajang dan Kaluppini dikhususkan untuk ibu hamil dan menyusui. Penelitian ini bertujuan untuk menggali pengetahuan tradisional dan makanan tabu di kalangan masyarakat adat di Sulawesi Selatan yang berhubungan dengan kesehatan ibu. Studi ini menggunakan metode kualitatif dengan pengambilan sampel secara *pusposive sampling*. Pengumpulan data menggunakan wawancara mendalam dan diskusi kelompok terfokus (FGD). Penelitian dilakukan di Kabupaten Bulukumba dan Kabupaten Enrekang di Provinsi Sulawesi Selatan pada bulan November 2017- Juni 2018. Informan adalah ibu balita, dukun anak, bidan desa, dan tokoh adat. Panelitin ini menemukan bahwa kedua kelompok masyarakat adat tersebut meyakini dan mempraktikkan pantangan makanan yang dapat menghalangi mereka dari berbagai makanan bergizi yang penting selama masa kehamilan dan menyusui. Kesimpulan, tabu makanan

dipraktikkan oleh para ibu di kedua masyarakat adat yang dapat menghalangi ibu mengonsumsi makanan bergizi yang penting pada masa kehamilan dan menyusui.

**Kata Kunci:** Gizi, kepercayaan, kualitatif, tabu

## Introduction

Traditional knowledge and beliefs are related to how indigenous people (Mistry et al., 2020). Traditional knowledge refers to a collection of knowledge that exists in a community, is applied by local people for some time, and is passed down from one generation to another (Viscogliosi et al., 2020). Traditional knowledge is locally bound, culturally and context-specific, non-formal, and orally transmitted, making it distinct from scientific knowledge (Nurbaya, 2023; Thipanyane et al., 2022). Indigenous people believe in and practice their traditional knowledge, despite innovations in science and technology (Diana et al., 2018). Traditional knowledge, rituals, and beliefs affect people's perceptions and daily lives, including food taboos (Laksono & Wulandari, 2021).

Indigenous people believe that following traditional rituals and praying to God makes them healthier (Bautista-Valarezo et al., 2020; Kahissay et al., 2017). Pregnant women use traditional health medicines to have a hassle-free pregnancy, shorten labor, and improve breastfeeding (Thipanyane et al., 2022). They believed that some types of food should or should not be consumed during pregnancy and childbirth. Cultural beliefs and attitudes may influence daily health behaviors, which in turn contribute to a compromised state of maternal and child health. (Aynalem et al., 2023; Tela et al., 2020).

Food taboos have been applied to pregnant and lactating mothers in several remote areas of Indonesia (Devy et al., 2019). Furthermore, food taboos are associated with cultural beliefs and are passed on to every generation, particularly pregnant women. Several cultures have restrictions on food consumption for pregnant women (Abebe et al., 2021; Amare et al., 2022). A definition of food taboos is the unwritten social rules in the community that were developed based on religion or social reasons that affect people's food consumption (Abere & Azene, 2023). Although food taboos have cultural significance, they can also affect the nutritional intake of pregnant and lactating women. Food taboos are

not only about disliking food preferences but they also prevent people from adverse effects that are believed to cause health problems (McNamara & Wood, 2019).

Food taboos among pregnant and lactating mothers can have a significant impact on nutrition and diet. Food taboos may restrict pregnant and lactating women from consuming certain types of foods that are rich in essential nutrients, such as proteins, vitamins, and minerals. For example, if a taboo prohibits the consumption of dairy products and eggs, it could lead to calcium and protein deficiency, which is crucial for bone development in both the mother and growing fetus (Parmar et al., 2013; Puglisi & Fernandez, 2022). Therefore, it is important to explore food taboos among mothers to facilitate effective communication between health care providers and indigenous women, which enables providers to offer tailored advice and recommendations that align with cultural norms and preferences.

The two groups of food taboos were permanent and temporary, respectively. Permanent taboos are mostly for religious reasons. One example is the prohibition of Muslims from eating pork. Meanwhile, a temporary taboo is usually associated with a person's condition (i.e., pregnancy or lactation period). Another factor that could affect pregnant mothers' food consumption is cultural factors, such as traditional knowledge, beliefs, values, and norms in the community, in addition to socioeconomic status. A study in Northwest Ethiopia found that food taboos in a community contribute to unhealthy nutritional practices during pregnancy, and early childhood practice could affect the nutritional status of pregnant mothers (Abere & Azene, 2023).

Furthermore, food taboo practices also occur in indigenous communities in Indonesia, such as the Ammatoa Kajang and Kaluppini communities in the South Sulawesi Province. Both communities are known to still apply customary law in their daily lives and have a strong and complex customary system that regulates various aspects of their lives, including ways of worship, marriage, agriculture, and settlement (Nurbaya, 2023). The two indigenous

communities live in customary areas and practice their traditional knowledge. The traditional food practices are infants' prelacteal food feeding (Nurbaya, 2021) and food taboos for mothers during pregnancy and lactation. Thus, we aimed to explore the traditional knowledge and food taboos concerning maternal health among indigenous peoples in South Sulawesi.

## Methods

This qualitative study was conducted in two indigenous territories (Ammatoa Kajang and Kaluppini) in South Sulawesi Province from November 2017 to June 2018. The first indigenous tribe is Ammatoa Kajang, located in the Bulukumba Regency in the southeastern corner of the South Sulawesi Province. The second tribe is Kaluppini. This tribe lives in the northern part of South Sulawesi Province in the Enrekang Regency.

Trained interviewers collected qualitative data from mothers of under-five children, traditional birth attendants (TBAs), local midwives, and customary leaders. The participants were purposively selected. Data collection used in-depth interviews (IDIs) and focus group discussion (FGDs) guidelines. We interviewed 58 mothers using IDIs and 48 mothers using FGDs.

We collected additional information from 9 customary leaders, 6 midwives, and 11 TBAs as triangulation processes. All data collection processes (IDIs and FGDs) used the local language of Bahasa Indonesia. The interview duration was approximately 60-90 minutes. All the voice data were recorded. Local research assistants were trained to ensure that the delivered information was appropriate to the local context.

Furthermore, we transcribed verbatim from the data recording and read the transcript thoroughly to ensure that all information was complete. Furthermore, we analyzed the data in three steps. Step one involved the coding process by identifying and labeling specific concepts within the data. The second step was the data categorization process, in which the codes were grouped into broader categories that capture the essence of the data. The final step was theme generation, which addressed the objectives of the study. The analysis used Dedoose, an online qualitative data analysis tool (Dedoose, 2022).

This study received ethical approval number 061/KEPK-PTKMKS/IX/2017 from the Health Research Ethics Committee of the Health Polytechnic of Makassar, South Sulawesi. Participation was voluntary and written consent was obtained from each participant after the interviewers provided brief information about the purpose of the study. The confidentiality of the participants' data in this research was maintained by not including their real names.

## Result and Discussion

The results of this study show that Ammatoa Kajang and Kaluppini people believe in food taboos for pregnant and lactating mothers. The taboo food tradition in Ammatoa Kajang is known as *talimaring*. The taboo prohibits pregnant and lactating mothers from consuming most vitamin- and mineral-rich foods. Table 1 shows the prohibited food types for pregnant and lactating mothers, based on food taboo practices among the Ammatoa Kajang and Kaluppini people.

**Table 1.** Food taboos for mothers in Kaluppini and Ammatoa Kajang People

Periods	Food Taboos	
	Kaluppini	Ammatoa Kajang
Pregnancy Period	a. Banana flower b. Pineapple c. All fruits that had bitten d. Chicken intestine	a. <i>Loka katiung</i> (local banana) and its flower. b. Sour fruits (e.g., orange and pineapple) c. Water spinach d. Vegetables cooked in coconut milk. e. Shrimp and squid
Lactating Period	a. Young papaya b. Water spinach c. Egg	a. Vegetables cooked in coconut milk. b. <i>Loka katiung</i> (local banana)

### Food Taboo for Pregnant Mother

Food beliefs have appeared among many indigenous people, including Indonesia. The Ammatoa Kajang and Kaluppini people had their traditional knowledge and belief in food that was not good or taboo for pregnant mothers concerning mother and child health. The pregnant mother considers everything that does not affect the baby, including food consumption.

Among all foods, the Kaluppini tribe believes that some fruits, part of the fruit tree, and the intestine of chicken are prohibited for pregnant mothers. Meanwhile, the Ammatoa Kajang tribe believes that some fruits, vegetables, and seafood (i.e., shrimp and squid) are taboo for pregnant mothers.

The prohibited vegetables were cooked in coconut milk and water spinach. However, fruits that are damaged (bitten by bats) are considered taboo by pregnant mothers. The local banana type, *Loka katiung*, is widely consumed in these areas. The Ammatoa Kajang and Kaluppini people consume *Loka katiung*, including the flowers of this banana tree.

Both indigenous tribes believe that banana flowers are taboo because mothers who consume banana flowers during pregnancy cause their children to become smaller as they grow older. According to a 37-year-old mother in Kaluppini, the reasons for her IDI method interview were as follows:

*"We cannot consume banana flower during banana flower (harvest season) ..., the longer the more it is getting smaller. So, our child will be like that and later will gradually become smaller."*

In response to our question, a 38-year-old mother in Kajang stated her agreement with reasons related to *Loka Katiung*:

*"Pregnant women could not eat some food, we could not eat loka katiung."*

The Kaluppini midwives confirmed that the pregnant mothers in their areas had food taboos such as banana flowers and chicken intestines. Pregnant mothers believe that food negatively affects infants' health. A former study found harmful cultural practices includes the food restriction and food taboos, abdominal and uterine massage, home delivery, avoiding colostrum, cutting the umbilical cord by unsterile sharp materials, delaying initiation of breastfeeding, early bath, giving butter and/or water for newborn, using of "*Koso*" (traditional

herb) (Abebe et al., 2021). This practice was also found in some areas of Indonesia, such as Madurese (East Java) and Kaluppini (South Sulawesi), providing prelacteal foods for newborn babies and believing in traditional birth attendants (Devy et al., 2019; Nurbaya et al., 2020; Nurbaya, 2021; Nurbaya & Chandra, 2021). The local midwives in the Kaluppini area explained the reasons for the food taboos:

*"Pregnant mothers do not eat banana flowers because they say their babies will grow and gradually become progressively smaller. They also do not eat chicken intestines for fear of the fetus in the womb wrapped around the umbilical cord."*

Rituals play a fundamental role in indigenous people as a form of God belief. Their belief in the revelation of God in the form of a human being is considered to be the most important fundamental principle in their daily lives, particularly when someone becomes unhealthy or ill (Aynalem et al., 2023). The Ammatoa Kajang people serve *Loka katiung* as mandatory food during ritual performances in the customary forest. Therefore, *Loka katiung* is considered a taboo for pregnant mothers in their respective areas.

One explanation for the sour fruits being considered taboo among the Kajang community is the sourness of the fruits (i.e., pineapple and orange), which leads to miscarriage. On the other hand, seafood consumption (e.g., shrimp and squid) is believed to harm pregnant mothers; for example, the baby will be born like shrimp and squid or be born with soft bones. The reason for seafood becoming a prohibition among pregnant mothers was stated by a 33-year-old mother in Ammatoa Kajang using the IDI method as follows:

*"We are forbidden to eat shrimp during pregnancy because later the baby's body will redden like shrimp. And squid, it will later soften the baby's bones."*

Moreover, according to a 43-year-old mother in Ammatoa Kajang, not all vegetables cooked in coconut milk are good for pregnant and lactating mothers.

*"During pregnancy until lactating period, we were suggested to consume many green vegetables but not cooked in coconut milk."*

Women are often subjected to food taboos with specific consequences or penalties for breaking tradition based on their beliefs. Previous studies have suggested that mothers and mothers-in-law pass on cultural traditions, including dietary restrictions, to the next generation. One example is that of a mother who taught her daughter about food taboos and the expected prevention of the harmful possibility of food (Acire et al., 2023). However, in some communities, food taboos are considered a way to preserve identity and create a sense of belonging to the community (Asi & Teri, 2018).

This study revealed that traditional foods from the two indigenous communities have consumption restrictions for women during pregnancy and lactation. Women in these communities believe in food taboos that could harm them and their infants. However, the closest family and TBA impact information was received by the pregnant mothers. Negative information about the harmful effects of food on health during pregnancy, labor, and lactation affects mothers' food preferences.

The oral history of the food taboos will be delivered to the next generation by their mothers. As we know, there is no scientific explanation for most food taboos, but indigenous mothers strongly believe in them and continue practicing them in their lives. Moreover, studies have mentioned that women who had food taboos during pregnancy would have an increased likelihood of developing a range of adverse pregnancy outcomes (Amare et al., 2022). It is associated with good health, blessings, and beauty. All of these are valued positively in life. However, illness shows that a person has fallen out of this delicate balance, which is normally attributed to the breaking of taboos and the activities of malevolent spirits (Adu-gyamfi & Adjei, 2019).

Furthermore, banana flower consumption is prohibited for pregnant women because they believe that potential side effects, such as nausea, might affect their unborn babies. In addition to the potential side effects, they believed in infants' size reduction by increasing pregnancy weeks because of banana flower consumption. Beliefs about food taboos could hinder mothers from consuming nutritious food, which is beneficial for their health (Ramulondi et al., 2021). One study found that banana flowers are a fiber-rich source of food. Dietary fiber has many health benefits, such as a lower risk of colon and breast cancer, normalization of blood glucose and insulin levels, prevention of obesity, and avoidance of common constipation

during pregnancy (McRae, 2018; Saroh et al., 2019).

Furthermore, previous research found food taboo practices among the Madurese community in the East Java Province of Indonesia (Diana et al., 2018) and some other countries, such as Gambia, Nigeria, and Papua New Guinea. Beliefs in food taboos could prohibit the consumption of vegetable and protein food sources, such as eggs, and limit household food diversity (Acire et al., 2023; Chakona & Shackleton, 2019). A study in Kenya concluded that food taboos in this community contributed to unhealthy nutritional practices during pregnancy and early childhood. Such taboo food practices could result in a shortage of adequate supplies of essential nutrients, particularly among vulnerable groups (Riang'a et al., 2018).

#### **Food Taboo for Lactating Mother**

Mothers who passed labor believed that some food was forbidden from being consumed during the lactation period. They believed that it would affect breast milk production or have negative health impacts on newborn babies. Most mothers in Kaluppini mentioned young papaya, water spinach, and eggs as taboos during lactation. *Loka katiung* and other vegetables cooked in coconut milk are believed to be harmful to Kajang mothers during lactation.

One informant in Kaluppini stated that consuming young papaya would adversely affect the mother and decrease breast milk production.

*"We should not eat young papaya because people said it will inhibit breastmilk production."*

In addition, the Kaluppini people believed that if a lactating mother consumed eggs, it would cause her baby to suffer from diarrhea.

*"During lactating, we are usually banned egg because sometimes children become diarrhea. Hence it is forbidden to consume egg."*

Meanwhile, Ammatoa Kajang mothers stated that eating vegetables cooked in coconut milk was forbidden. They believed that this would cause the baby's stomach to bloat.

*"We could not consume vegetables cooked in coconut milk."*

This study also revealed that most food taboos during the lactation period were fruits

and vegetables, such as young papaya, banana, water spinach, and green vegetables cooked in coconut milk. Even Kaluppini people forbid lactating mothers from consuming eggs, a protein-rich food source, during lactation. Food restriction during the lactation period may occur because they are concerned about the effect of food on breast milk production and quality, which leads to diarrhea in babies (Jeong et al., 2017; Pradanie et al., 2019). One protein deficiency solution for pregnant and breastfeeding mothers is high-protein food consumption, such as eggs. Animal protein sources are considered as “complete proteins” in pregnant women (Mahmudiono et al., 2019; Mousa et al., 2019; Musyoka et al., 2023).

This study has some limitations. We did not assess dietary data from pregnant mothers. However, our study collected data on complete food types that were taboo for pregnant and breastfeeding mothers. Thus, future research should consider dietary data assessment to determine the implications of food taboos on health status or identify nutritious food sources that are available and affordable within communities.

## Conclusion

The indigenous mothers of the Kaluppini and Ammatoa Kajang people practice food taboos. This practice could hinder the consumption of various nutritious foods that are important during pregnancy and lactation. Nutrition education interventions on what to consume or not to consume for mothers should be delivered slowly, starting from customary leaders and female leaders in that community.

This study recommends that local governments provide training programs for healthcare providers to enhance their understanding and sensitivity towards cultural practices and beliefs about food taboos in order to provide counselling and educate mothers about the importance of a balanced diet and provide alternative food options that comply with cultural norms.

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