



Betel Eating Culture on Periodontal Health of Batak Karo Women

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ABSTRACT

The culture of eating betel has become a strong tradition in Batak Karo society, especially among women. This tradition is not only an ordinary habit, but also has important social, spiritual and identity meaning. However, on the other hand, the ingredients used in eating betel, such as betel leaves, areca nut, lime, and tobacco, are known to have potential risks to oral health, especially periodontal health. This study aims to explore the relationship between betel eating culture and periodontal health status in Batak Karo women. A literature study was carried out to look for previous research and review the results of previous research. The research results show that the practice of eating betel has a very important cultural value in the lives of the Batak Karo people, especially as a symbol of social status, respect and beauty for women. However, it was found that the majority of Karo Batak women experienced poor periodontal conditions, such as gingivitis, periodontitis and premature tooth loss.

Keywords: Betel Eating Culture, Periodontal Health, Karo Batak Women, Health Anthropology,

ABSTRAK

Budaya makan sirih sudah menjadi tradisi yang kuat dalam masyarakat Batak Karo, khususnya di kalangan perempuan. Tradisi ini tidak hanya merupakan kebiasaan biasa, tetapi juga memiliki makna sosial, spiritual, dan identitas yang penting. Namun, di sisi lain, bahan-bahan yang digunakan dalam makan sirih, seperti daun sirih, buah pinang, kapur, dan tembakau, diketahui memiliki potensi risiko terhadap kesehatan mulut, terutama kesehatan periodontal. Penelitian ini bertujuan untuk mengeksplorasi hubungan antara budaya makan sirih dan status kesehatan periodontal pada perempuan Batak Karo. Sebuah studi literatur dilakukan untuk mencari penelitian terdahulu dan mengulas hasil penelitian sebelumnya. Hasil penelitian menunjukkan bahwa praktik makan sirih memiliki nilai budaya yang sangat penting dalam kehidupan masyarakat Batak Karo, terutama sebagai simbol status sosial, penghormatan, dan kecantikan bagi perempuan. Namun, ternyata di temukan bahwa sebagian besar perempuan Batak Karo mengalami kondisi periodontal yang buruk, seperti gingivitis, periodontitis, dan kehilangan gigi prematur.

Kata Kunci : Budaya Makan Sirih, Kesehatan Periodontal, Perempuan Batak Karo, Antropologi Kesehatan



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1. Introduction

One of the most important organs in the human body is the mouth which functions as an entry point for various types of food and drinks as well as various types of germs, bacteria, and viruses. In addition, the mouth also has other organs, namely teeth which function to crush or chew or mash food. In addition, teeth can be used as decoration that reflects a person's self-image. (Boedihardjoe, 2011)

Dental and oral diseases have become commonplace for us to encounter. This disease can attack anyone, be it children, adolescents, adults, even the elderly. In Indonesia, dental and oral diseases, especially dental caries and periodontal disease, are still quite significant health problems.

The cause of periodontal disease begins with plaque accumulation on the teeth. Plaque occurs due to food residue and bacteria in the mouth that are not cleaned properly so plaque will form tartar as a medium for bacterial growth. If not cleaned, the bacteria in tartar will produce toxins, causing gingivitis which will later cause gaps between the gum tissue and teeth. (Siloam Medical Team, 2023). The causes of this disease are almost the same as other diseases, both directly (bacteria) and indirectly (patient characteristics, habits, behavior, and cultural factors). Various tribes in Indonesia perform the ritual of eating betel. Most rural residents have a hereditary habit of eating betel, which was initially closely related to local customs. The use of several natural ingredients, such as betel lime, tobacco, areca nut (*Areca catechu*), betel leaves (*Piper betel*), and other spices, is part of eating betel. The mixture of these ingredients is chewed regularly, especially during traditional events and religious ceremonies. Although betel is highly respected culturally, several studies have shown that chewing betel can harm oral health. Periodontal health, which includes the condition of the gums and supporting tissues of the teeth, is one aspect of oral health that can be affected by the culture of chewing betel quid. Long-term exposure to the ingredients used in chewing betel quid, such as betel lime and tobacco, can irritate the gums and trigger periodontal diseases, such as gingivitis and periodontitis. This condition can worsen the damage to the supporting tissues of the teeth and even cause premature tooth loss.

However, studies that specifically examine the influence of betel quid chewing culture on the periodontal health of Batak Karo women are still limited. Therefore, this study aims to explore the relationship between the cultural practice of chewing betel quid and periodontal health status in Batak Karo women. By understanding these dynamics, it is hoped that effective strategies can be found to maintain cultural heritage while minimizing negative impacts on oral health.

This study is important because it combines anthropological and dental health perspectives, and highlights the importance of a culturally sensitive approach in health promotion efforts. The findings of this study are expected to provide new insights into designing holistic dental health programs that are appropriate to the local cultural context, especially for the Batak Karo people in North Sumatra.

2. Methods

This paper uses a literature study with Google Scholar as a database used to search for journal references, we use 3 keywords to search for our references, namely: Makan sirih, Periodontal, and Suku Karo. we choose an Indonesian language journal as our reference with a journal from 2003-2023, which journal focuses on discussing what periodontal health and the culture of eating sirih in the Karo tribe are, and we do not set a publication time for the journal.

We process it into writing by determining 4 sub-topics to be discussed, then we look at our reference sources to see if there is any literature that we have determined on the sub-topic, and paraphrase it then move it into 1 arrangement of the results of the literature that has been reviewed.

The work on this writing was carried out in groups where some of its members were divided into several teams, each team had their own tasks, 4 people collected data from reference sources then analyzed and reviewed it and 2 people read and analyzed the results of the data then combined them into one.

3. Result and Discussion

Periodontal Tissue

Periodontal disease can be defined as a pathological process affecting the periodontal tissue, which is the tissue around the teeth that supports the presence of teeth in the socket (gum pocket). (Prayitno, 2003). Periodontal is one of the main causes of tooth loss in adults. The disorder begins with gingivitis that is left untreated. Initial symptoms can be seen and felt, namely, pain when touched, swollen gums, dark red or purplish, gums bleed easily and begin to shrink, making teeth longer.

Diseases of the supporting tissues of the teeth, consisting of periodontal tissue, cementum, alveolar bone, and gums, are known as periodontal disease. Generally grouped, gingivitis is inflammation of the gingiva that can be caused by plaque that is altered by systematic factors; periodontitis is inflammation of the periodontal tissue, which is the tissue between cementum and alveolar bone. Inflammation of the periodontal tissue is an additional complication of gingivitis and caries. (Tonetti et al., 2017)

Betel Eating Culture

The habit of people who have been passed down from generation to generation is eating betel. Some regions in Indonesia give betel a name that is almost similar to pepper, with the scientific name *Piper Betle.L.* For example, there are the names Suruh, Sedah (Java); Seureuh (Sunda); Belo (Batak Karo); Uwit (Dayak) and Cambai (Lampung). (Muhlisah, 2003)

Betel leaves are medicinal plants that have many benefits, betel which is known to contain antiseptic substances in all parts makes betel leaves known as medicinal plants. The shape of the leaves is similar to the heart of the heart, with green leaves, betel leaves are also climbing plants so they can just grow in the yard.

The nature of the betel plant is a type of plant that spreads and climbs on the tree trunks around it. Judging from the shape of the leaves, betel leaves are rather oblong. Fertile betel leaves are between 8 cm to 12 cm in size, with a leaf width of 10-15 cm. Betel plants are planted in loose soil that is not too humid and require tropical weather and require sufficient water so that betel plants grow well.

The type of betel, its age, sufficient sunlight, and leaf condition are components that determine the quality of betel leaves. Forest betel should not be eaten because it tastes bad and its leaves are hard. It grows on tropical rainforest trees. Shamans often use its small leaves as medicine. Areca nut, betel lime, gambir, and tobacco are the main ingredients for betel chewing. There are also cardamom, cloves, cinnamon, and tobacco. Teeth, gingiva or gums, and oral mucosa are affected by eating betel. And these impacts have good and bad effects. Eating betel is good for teeth because it inhibits the growth of caries. While negative impacts can cause periodontal disease, which is chronic inflammation of the oral cavity and oral mucosa.

Man Belo is a term for eating betel in Karo language which requires other ingredients as ingredients, consisting of belo (betel), lime, gambir (gambir), mbako (tobacco), buah mayang (areca nut). Some also add kembiri (candlenut), stir-fried glutinous rice. All ingredients and ingredients are wrapped in betel, then chewed. Then mbako (tobacco) is used by injecting or shaking it to the upper and lower lips, after the betel is chewed and produces a red color. (Br Karo, 2016)

Composition of Eating Betel

In the Batak Karo community, betel is not directly chewed or eaten. However, it is mixed with gambir, betel lime, and areca nut, but some mix it with tobacco. Gambir is a type of dried sap that comes from the extract of squeezed leaves and twigs of a plant called *Uncaria gambir*. The important content of gambir is catechin, a natural ingredient that is an anti-oxidant. The main use of gambir in the archipelago is widely known as one of the components of betel chewing. Betel lime/inject is often also called "Slaked Lime" which is a form of paste made from grinding or crushing shells and making it into a paste. Areca nut is a small fruit from the palm family that is usually cut into small pieces and rolled together with betel leaves, gambir and inject, then chewed together to produce a red color.

Relationship of Eating Betel to Periodontal Health

Chewing betel can strengthen teeth because of the properties of the ingredients used for chewing betel. In addition, chewing betel is also believed to cure toothache and prevent bad breath. However, because the culture of eating betel is not only eating betel but also mixing betel with other ingredients, coupled with the lack of public attention to dental and periodontal health, periodontal and dental diseases are easily contracted. Dental and gum health will be maintained if the Karo people brush their teeth regularly, but unfortunately, brushing has been replaced by the habit of chewing betel.

Eating betel can harm periodontal tissue. According to Freud et al. (1964), betel causes teeth to turn brown, lime to accumulate on the teeth, the neck of the tooth to separate from the gums, and teeth can fall out. Balendra (1949) stated that betel consumption damages periodontal tissue. In a study conducted on Marsal Day (1955) in several Asian countries, including India and Ceylon, it was said that Jambe, or areca nut, plays a significant role in damage to periodontal tissue. A study conducted by Mehtha (1955) in India (Bombay) with 1023 cases showed that people who chewed betel experienced greater periodontal tissue damage than people who did not chew betel. So, chewing betel damages the periodontal tissue. (Bida et al., 2022)

Efforts that can be made to prevent periodontal tissue damage that causes periodontitis are, brushing your teeth and flossing regularly, brushing your teeth at least twice a day can clean your teeth from plaque on your teeth. Poor oral hygiene causes irritation of the betel chewing ingredients continuously so that periodontal tissue damage occurs.

Conclusion

The habit of chewing betel in the Karo community causes damage to periodontal tissue. Diseases such as gingivitis and periodontitis, these diseases are prone to occur in the elderly. Periodontal tissue can interfere

with other tissues in the body. Efforts that can be made are to maintain oral and dental hygiene by brushing your teeth at least twice a day and balancing brushing your teeth with chewing betel. After chewing betel, routinely clean your mouth and teeth. Things that can be avoided are reducing the lime content of betel and areca nuts.

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