INTRODUCTION

Epilepsy is a sign of damaged brain function due to the excessive and paroximal discharge of electrical discharge of brain neurons. World Health Organization (WHO) data shows the prevalence of epilepsy reaches 50 million worldwide and as many as forty million domiciled in developing countries. A meta-analysis study also reported that the incidence rate of epilepsy was higher in developing countries (68.7 per 100,000 population) than in developed countries (43.4 per 100,000 population). The proportion of epilepsy patients in developing countries that received inappropriate therapies is still high, that is 80–90%. Issue related to inadequate epilepsy management in developing countries is associated with traditional beliefs and medicine.

Belief about epilepsy varies by religion and culture. Several studies have reported that certain groups of people assumed that epilepsy is a manifestation of trust in spirits, the existence of spirit in the human body, God’s gift, and mental illness. Bali is one of the tribes in Indonesia. Most Balinese people follow the Hindu-Bali religion. Balinese culture is imbued by Hinduism and contains traditional wisdom contained ritual myths and ceremonies related to sacred things. Balinese culture not only contains religious values (Hinduism) but also aesthetics (art) as the dominant value. Balinese culture consists of conceptions of the sekala (noble) and niskala (spiritual) belief. Any visible symptom or event related to a sekala aspect is also believed to have a niskala aspect. This concept also plays a role in overcoming various health problems, in addition to undergoing medical treatment system (sekala), also done in niskala ways such as making worship, pleading wisdom, and perform religious rituals.

Traditional medicine also affects the perception and treatment of community epilepsy. It is a non-invasive form of treatment intervention based on cultural values, values of wisdom, knowledge, and experience related to ancient and religious beliefs. The science of traditional medicine in Bali is called usada. Usada has a variety of medicinal ways such as using herbs, using materials from animals, using religious and mystical incantations, asking for help from Bali (traditional medicine healers), and performing a purification ceremony. There are dozens of types of usada recorded in traditional Balinese treatment scripts based on the type of illness. Usada associated with epilepsy is grouped into usada buduh that is the usada used to treat people with mental illness.

This fact may become a health problem because inadequate management of epilepsy potentially cause disability and decrease the quality of life of the patients and their families. Based on the description above, knowing the knowledge and perception of traditional Balinese medications,

ABSTRACT

**Aim:** The study aimed to explore Balinese traditional healers perception related to knowledge, belief, and health practice of epilepsy and their influence on epilepsy patients.

**Method:** This study is a cross sectional study conducted between 1st and 20th February 2018. Balinese traditional healers, who were Hindu, and had treated epilepsy patients were recruited and had an interview. Demographic characteristics of respondents were noted.

**Results:** A total of sixteen respondents consisted of eight Balinese traditional healers and eight epilepsy patients were enrolled. It was found 87.5% of respondents said epilepsy was the combination of medical and spiritual illness. The abnormality of body temperature (n=5, 62.5%), hereditary disease (n=2, 25%), and blood disorders (n=1, 12.5%) were their knowledge about etiology of epilepsy. The traditional opinion about epilepsy was about ancestor’s sin (n=4, 50%) and black magic (n=4, 50%). The patients were also given various herbal medication contained plants, oil, roots, fruits, holy water and showed both positive and negative effect on the patients. According to the patients, issues of religious belief, accessibility, affordability, and economy were the reason for visiting the Balinese traditional healers at first.

**Conclusion:** Traditional belief were assumed to have a great impact on the health system among Balinese communities along with medical therapy. This traditional belief should be one of health practices consideration while taking care of epilepsy patient.

**Keyword:** Balinese, traditional beliefs, epilepsy, culture, health practice.

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namely, balian is important as a first step to provide comprehensive health services.

METHOD

This research was a cross sectional study to determine the knowledge and perception of Balinese traditional healers about epilepsy. The study was conducted from 1st February to 20th February 2018 including preparation, data collection, and data analysis. The study was held at a traditional Balinese treatment site. The target population of this study was traditional healers. The traditional healers who were Balinese, Hindu, age more than 18 years old, and willing to be a respondent were purposively included in the study. Balian is a traditional healer who stayed at Bali and was Hindu according to the Identity Card. Knowledge of epilepsy and its perceptions are assessed through interviews.

RESULT

Subject Characteristics

A total of thirty subjects were recruited at the beginning of the study, that consist of fifteen Balinese traditional healers and fifteen epilepsy patients who were treated by the healers. Seven traditional healers were dropped out during the study. The sociodemographic characteristics of the healers were shown in table 1.

All of the healers were man and most of them were elderly. The highest history of education was academy and none of them were uneducated. Most of the healers used to have the main job for livings, but they had stopped due to aging and planned to focus on their Balinese traditional medicine. The third healer never had a job before. He started to learn about conventional medicine since he was graduated from elementary school. All of his family members were traditional healers. Balinese traditional healers were divided into Balian Ketaksan and Balian Usadha. Balian Ketaksan is one of conventional healer type that being a healer naturally due to hereditary system, another side Balian Usadha is the one who became a healer by learning. The majority of healer type was Balian Ketaksan, only one healer as Balian Usadha. All of the healers had been practicing Balinese traditional medicine for more than ten years.

Familiarity with Epilepsy

The major source of epilepsy information was word of mouth — three out of eight traditional healers familiar with the term of epilepsy. They were healer 1, healer 6, and healer 7. All of them had been practicing traditional medicine for more than 15 years old. The rest of the traditional healers never heard about epilepsy. This study showed a video of seizure attack to the traditional healers, and although some of them never heard about epilepsy, they had personally known someone and treated patient with that kind of attack. They had their term to cite epilepsy, such as step, nyem, kejeng-kejeng, and ayan. The education history between the healers who were familiar with epilepsy and not familiar was similar. Their familiarity with epilepsy was shown in table 2.

Knowledge about Epilepsy

All of the traditional healers responded that epilepsy is caused by a combination of medical problem and spiritual issue. None of them knew that epilepsy is a brain disease. Most of them said that epilepsy is due to abnormality of body temperature. The seizure first aid practices were assessed. More than half of the healers reported that their epilepsy patient came to their practice at the first time then went to the doctor. Every healer had their medication method and composition to treat epilepsy patient. The ingredients of the medication consist of many kinds of leaves, roots, waters, fruits,

Table 1 The Sociodemographic characteristics of Balinese traditional healers

| Healer | Gender | Age (years) | Education     | Job            | Type of Treatment | Years of Treat |
|--------|--------|-------------|---------------|----------------|------------------|---------------|
| Healer 1 | Male   | 65          | Academy       | Teacher (retired) | Balian Ketaksan  | 15            |
| Healer 2 | Male   | 56          | Academy       | Insurance agent  | Balian Ketaksan  | 10            |
| Healer 3 | Male   | 60          | Elementary    | Never had       | Balian Usada     | 40            |
| Healer 4 | Male   | 90          | Elementary    | Shopkeeper      | Balian Ketaksan  | 43            |
| Healer 5 | Male   | 70          | Elementary    | Farmer          | Balian Ketaksan  | 40            |
| Healer 6 | Male   | 60          | Senior High School | District Head | Balian Ketaksan  | 33            |
| Healer 7 | Male   | 63          | Elementary    | Farmer          | Balian Ketaksan  | 42            |
| Healer 8 | Male   | 70          | Elementary    | Farmer          | Balian Ketaksan  | 35            |
mushrooms, honey, and any other natural ingredients. The medication could be inhaled, showered, and rubbed over the body.

Patient Perception About Epilepsy
This study interviewed the epilepsy patient who came to the Balinese traditional practice. It found that the Balinese traditional medication was well known among epilepsy patient in this study. All of the epilepsy patients use traditional medicine in line with medical treatment. As Balinese social system is paternalistic, the decision where to find a therapy was influenced by the patriarch.

Although all of the patients went to the doctor, more than half patient went to traditional medicine before deciding to find medical help. Some of them had decided to stop their medical treatment due to desperation. Their reasons to go to the traditional healers were related to the issue of accessibility, affordability, uncontrolled epilepsy, and length of epilepsy treatment. Although all of the patients had national insurance, issue of economic burden was still often expressed by the patient. All of the patients kept going to the traditional healers although their attack had been controlled using an epileptic drug.

**DISCUSSION**
Learning patient beliefs and attitudes is an essential early step in improving patient care. This study describes the influence of traditional beliefs on the epilepsy treatment in a sample of conventional healers and epilepsy patient drawn from Balinese communities. This is a topic which there has been little empirical research. This study benefitted from sampling strategy using a specific population.

Only less than half of the healers had heard about epilepsy. Our finding shows that the education history among the healers who were familiar with epilepsy and not familiar was similar — education level and years of practicing less likely to give a contribution to the familiarity of epilepsy in this study. This rate of familiarity and awareness is not comparable to those reported in studies from other developing countries.\(^9\)\(^-\)\(^11\) But those studies were held in the general population. Research among traditional healers was limited.

The healer’s source of information was not satisfactory; more than half of our participants heard about epilepsy from talks or word of mouth. This was reflected in the poor understanding of the causes and treatment of epilepsy. Many of the healers did not know that epilepsy is a brain disorder. This lack of knowledge may influence their attitude towards epilepsy management. It also may give a great impact on patient perception about epilepsy since the study found most of the epilepsy patient in this study choose traditional medicine as an initial treatment.

Among our participants, this study found that fatalistic beliefs about epilepsy were common. Such fatalism has been described in many cultures, ethnics, or tribes.\(^12\) Belief in the power of a supreme, magic, or jinn did not prevent the healers to ask the patient searching for proximate causes for their illness, or from taking active steps to alleviate their symptoms or seek a cure. Even though, this study showed that the patient still needed time to decide to go to medical assistant. According to the health and belief system theory, patients beliefs determine their response to an illness and the strategies they use to cope with it. Without knowing those beliefs, physicians may find themselves and their patients frustrated by misunderstandings.\(^13\)

This study also showed that patient family especially the decision maker in the family had a major influence on the use of traditional medicine in the Balinese community. This also should be an essential consideration while giving a health promotion.

Although theoretically traditional medicine probably not effective at reducing seizures, these therapies may be useful in other dimensions of health such as psychological coping and stress reduction in correlation with facing chronic disease.
CONCLUSION

Traditional belief was assumed to have a significant impact on the health system among Balinese communities along with medical therapy. It should be one of health practices consideration while taking care of epilepsy patient.

CONFLICT OF INTEREST

There were no financial supports or relationship between authors and any organization that could pose any conflict of interests in this article.

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