

Concepts of illness etiology in a traditional medical system: analysis of philosophy of Aruh and healing ritual as ethnomedicine



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Abstract

The process of recovering from a disease can vary among ethnic groups, culminating in distinct medical systems. Indonesia, an archipelagic country with over a thousand ethnicities, requires extensive research on ethnomedicine. A critical aspect of this research is illness etiology, which plays a crucial role in understanding the concept of prevention, therapy, and treatment developed by these ethnic groups. An adequate understanding of illness etiology will facilitate formulating a powerful, superior traditional medical system and provide practical benefits to assist local community health efforts. Therefore, this research aims to describe illness etiology by analyzing the philosophy of life: *aruh* and healing ritual according to the ethnomedicine of the Dayak Paramasan in Meratus Mountains. The method used was ethnography, which involved two traditional healing practitioners. Based on the results, illness were caused by behavior that was not *aruh* (disharmonious) with the environment. The types of illness include *alamiah* (physiological), *perbuatan* (psychosocial), and *kapuhunan* (socio-cultural). Meanwhile, illness therapy with ritual aims to return the *aruh* (harmonious, intimate, and peaceful) living conditions between the soul of the sufferer and the natural environment.

Keywords Ethnomedicine of the Dayak · Illness etiology · The Dayak Paramasan · *Baharagu* · Philosophy of *Aruh*

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1 Introduction

According to the World Health Organization (WHO), health is a state of complete physical, mental, and social well-being, not merely the absence of disease or infirmity (WHO 1948). This definition emphasizes three crucial components, which are physical, mental, and spiritual health. The Republic of Indonesia law concerning health in 2009 has also expanded the definition to be a state of well-being physically, mentally, spiritually, or socially, which helps physically, mentally, spiritually, or socially, allowing everyone to have a productive life (Permenkes 2009).

The two definitions show that both institutions recognize the multi-dimensional nature of human beings who possess body, soul, and socio-cultural systems. Therefore, health cannot only be interpreted as an imperfection of one human system but also affects each other simultaneously and proportionally in a biopsychosocial manner. When the biological system is disturbed, this will affect the mental (psychological) system, which, can impact the social system and vice versa.

When an individual is sick, there are various ways to achieve recovery and become healthy as before. These ways form various medical systems based on geographical, cultural, or temporal conditions. According to Foster and Anderson, a medical system includes all beliefs, scientific knowledge, skills, and actions of group members who support the system in promoting health (Foster-Anderson 1978). In other words, a medical system involves all beliefs and actions aimed at improving health based on knowledge and skills possessed by each member of a supporting group.

Discussions in medical/healthcare systems mainly focus on patient issues, etiology theories, treatment techniques, and responses to threats posed by diseases, such as social adaptation strategies, behaviors, and culturally-based beliefs behaviors. Furthermore, social institutions and cultural traditions in the form of behavior itself aim to improve human health. Experts have divided the discussion on the medical system into two categories, namely 1) the theory of disease, which comprises various ideas related to beliefs and causes of sickness, as well as treatment and recovery techniques used, and 2) the health care system. This research mainly focused on the theory of illness etiology owned by a medical tradition of an ethnic group in Indonesia.

Ethnomedicine refers to a medical system belonging to a specific ethnic group and differs from other groups or cultures. It can be described as a cultural or a health care system that is owned by an ethnic community (Kleinman 1980).

Given that the foundation of a medical system is a theory about illness, its etiology directly shapes the variety of treatment techniques used to respond to the condition. Beliefs about the cause of sickness create various responses based on culture to prevent, treat, and cure illness. Furthermore, multiple attributes of social institutions and new adaptive behaviors related to illness contribute to forming a medical system.

The health care system is a conceptual model used to understand how actors in a specific social setting think. This involves their beliefs and decisions about how to respond to specific episodes of illness, as well as their expectations and evaluations

about the type of care, which helps them to decide on a model of their health care system. Health care involves beliefs, behavioral patterns, and is related to cultural rules or local contexts (Kleinman 1980). Therefore, if we do not pay attention to the different regions and medical systems, solely focus on diseases, patients, practitioners, and recovery methods in healthcare study, it may lead to a serious distortion of social reality (Kleinman 1980).

Indonesia is an archipelagic country with a vast array of about 1300 ethnic groups according to the 2010 Census by the Central Agency on Statistics (BPS 2010). This diversity has impacted the development of ethnomedicine-related research, slowing down the creation of a powerful superior traditional medical system. If such a strong traditional medical system was created, it would be expected to help the local community's health work in practice. Furthermore, research and investigations on ethnomedicine in Indonesia has been hampered due to limitations on the classification of etiology concepts of non-Western medical systems by scholars, who believe that the etiology of a ethnomedicine is either personalistic or naturalistic (Foster-Anderson 1978). Especially the category of personalistic etiology has become a solid barrier that disconnects illness from the scientific aspect of ethnomedicines. Moreover, the absence of appropriate instruments and epistemology when etiology is only directed towards magical, occult, or supernatural things further contributes to the stagnation in ethnomedicine research. Illness etiology from ethnomedicine in Indonesia is still confined to a personalistic and naturalistic level without any enrichment narrative. This stagnation has hindered the creation of a new medical paradigm that could have created hundreds of research and new theories, and could have served as a source for establishing Indonesian traditional medical science.

This research focused on one of the ethnic groups on the island of Borneo, the largest island in Indonesia, namely the Dayak Paramasan living in Meratus Mountains, South Kalimantan Province. The group was selected due to its cultural preservation and sustainable natural and geographical conditions. Important research questions were constructed on disease etiology, including 1) the causes of illness 2) the type of illness, and the therapy concept through the healing ritual owned by the Dayak Paramasan ethnomedicine. Illness etiology and therapy concepts with this ritual are crucial to understanding scientific arguments about the concepts of prevention and treatment developed by these ethnic groups as an effective alternative therapy. Therefore, this research aims to obtain a description of etiology related to the cause and type of illness. The approach involved analyzing the philosophical teachings of *aruh* and healing ritual concepts that have been sustainably passed from one generation to another according to the ethnomedicine of the Dayak Paramasan ethnic group.

2 Methods

The ethnography method was used to describe the aspect of social life related to the philosophy of *aruh* and healing ritual (*baharagu* and *basambur*) to make it accessible and understandable to other cultures aside from the Dayak Paramasan ethnic

group. Data were collected by conducting in-depth interviews and direct observations of the healing ritual held by *balian* (key informant).

The key informants were two *balian* — respected and traditional figures who understood the culture of the Dayak Paramasan community life. The first key informant was Mr. Uliansyah, a *balian adat* who had the task of maintaining the natural environment, including forests, villages, fields, and rivers, regulating community affairs, determining the implementation time, organizing various traditional ritual, and acting as community representatives in dealing with the government (sub-district or district). The second informant was Mr. Usron, a *balian padukunan*, whose task was conducting treatment and leading various traditional rituals.

3 Results and discussion

3.1 Demographics and geography

The Dayak Paramasan ethnic group is closely related to the Banjar Hulu, and also prefers to be called Meratus people because the term has a positive value. Meratus comes from the word “*ratus*” (hundred), which refers to a variety or hundreds of local residents (Anshari 2016). Based on the Central Agency on Statistics Indonesia, this ethnic group in 2000 was estimated to have a population of 1,737. They developed a kinship system commonly known as *Bubuhan* who usually lives in a long house or traditional hall, which is a building 10 to 15 m wide and 50 m long (Anshari 2016).

Meratus is a mountains region that divides South Kalimantan Province into two areas. These mountains stretch for ± 600 km² from the southeast and turn north to the border of East Kalimantan Province, Indonesia. Along these mountains, there are many rubber plantations, while the Dayak Paramasan ethnic group inhabits Banjar Regency. As can be seen from Fig. 1 below The Paramasan district still has traditional hall spread across 15 hamlets, A journey from Banjarmasin City to Romain traditional hall in Romain hamlet, Paramasan Bawah Village takes 3 h by car.

3.2 The Dayak Paramasan culture

The language spoken in the Dayak Paramasan ethnic group is the same as that in Banjar Hulu, namely the Archaic Banjar language. The difference between these two languages is only in intonation (accent). The Archaic Banjar is the oldest language after Sambas and Brunei Malay, as well as Iban (Radam 2001).

This language is only spoken in “*mamang*” or as a spell when a *balian* lead *aruh* ritual and is mainly used in sacred ceremonies during religious celebrations. The language used in daily communication is Banjar pahuluan which is also spoken by Banjar people living in the upstream area.

Furthermore, the Dayak Paramasan people have a culture known as *huma* which translates to agriculture. Their livelihood is based on utilizing forest

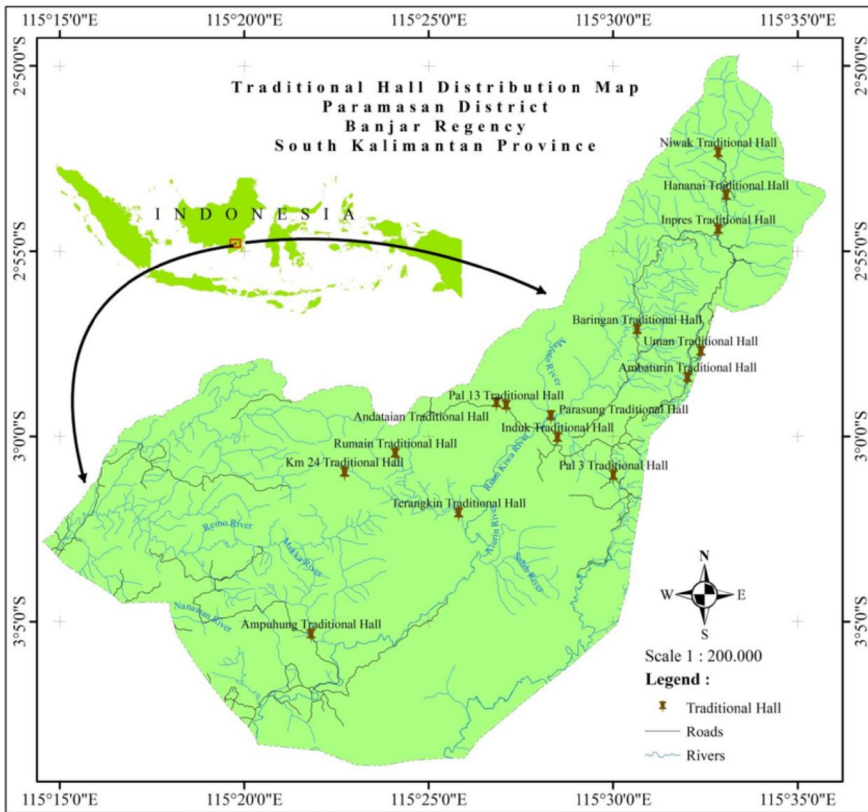


Fig. 1 The Map of Custom Hall at Paramasan District, Banjar Regency, South Kalimantan, Indonesia (Wardhani, Arisanty, Nugroho, & LiliUtami 2023)

products, hunting animals, and farming by shifting cultivation, while still adhering to the local wisdom and knowledge passed down through generations.

Bahuma is a term used to describe farming activities with paddy as the main crop and is a hereditary tradition instituted to fulfill food needs for the local community. It is closely linked to the religious ceremony of *balian*, which follows the cycle of paddy growth in their fields. Although various plants are grown in the fields, the main plant is a certain type of paddy, which is believed to be sacred.

The planting stage, from growing seeds to harvesting is always accompanied by a religious ceremony known as *aruh*. Therefore, *bahuma*, in this case, is used as the basis of the main religion and customs of the local community. The results of *bahuma* are forbidden to be exploited before the *Bawanang* tradition, a ritual of harvest thanksgiving. The harvest is not intended for sale or production, but only to fulfill the needs of the year. However, they can sell enough paddies to exchange for other needed goods.

3.3 The religion of the Dayak Paramasan ethnic group

The Dayak Paramasan people practice *balian* religion, which mostly involves the use of oral communication without any form of book regulating the teachings. It can also be considered the religion of *huma* community, which is closely related to the importance of paddy and its sacred manifestation in ritual ceremonies (Rafiq 2013). Furthermore, the name of god is considered a taboo to be mentioned especially without respect because it is sacred. They believe in the existence of god (the Creator) as the ultimate and supernatural being. The main god is symbolized in mythology as “*Yang*” meaning one who voices from Heaven (*Basuwara*, *Suwara*), the Creator of the universe, the first human, and seven protective plants. Moreover, the sequence of the main god is as follows: *Nining Bahatara* is the god of controlling sustenance and human destiny, while Sangkawanang gives and determines paddy growth (Anshari 2016).

Balian religion also recognizes the existence of prophets who are the main servant of god. There are 40 prophets believed by this religion and some of them have similarities with Muslims (e.g. Yakub, Nuh, Haidir, and Muhammad). This religion also recognizes that there are spiritual souls who are helpers of the main god, for example, *Hiyang* or *Datu-Nini* are the souls of ancestors; *Pidara* are souls roaming around the place of residence, and *Kariau* (gods) are various natural souls of lord and caretaker of forests, fields, trees, rivers, animals, etc.

There are three groups of souls/gods in the environment/region, namely *Siasia Banua*, *Bubuhan Aing*, and *Kariau* that generally relate to coastal waters now inhabited by Banjar Hulu and Kuala people. Examples include *Kariau Labuhan*, *Padang Batung*, *Mantuil*, etc. Meanwhile, *Siasia Banua* examples are *Banua Kambat*, *Banua Batung Beach*, and others. *Bubuhan Aing* (water community) examples include *Bubuhan Aing Muhara Indan*, *Danau Bacaramin*, *Maantas* and others.

Balian religion has a “*bahuma*” system containing elements of belief, various traditional ritual (marriage, death), values, norms, and views of life, which are all related to farming activities. This closeness to the farming element is a manifestation of belief in the existence of one of the three main gods called Sangkawanang (controller of rice cultivation). This is slightly different from the Dayak communities in Central and East Kalimantan which place more emphasis on the “death” religious system.

The concept of this religion is based on the philosophy of *bahuma* or shifting paddy fields. Annual religious celebrations follow the cycle of paddy cultivation, starting with land clearing (*aruh batilah*), planting (*aruh bamula*), growth (*aruh basambuk*), and harvest (*aruh Bawanang*).

...*lamun pakarjaan bacucuk tanam ada banyak baacaraan aruh tumatan gasan ladang hanyar, manyiangi ladang acara batilah, waktu mananami ladang hanyar ada acara bamula, supaya parawatannya barhasil dia acarai basambuk, sahabis panin kami kada wani mamanfaatkan hasil panin sabalum diaacarai bawanang...* (*Balian* Uliansyah) (The teachings of *aruh* are the basis for ritual related to farming, ranging from clearing land, weeding fields, planting, and harvesting. The “*bawanang*” ritual must first be carried out).

The significance of worship is that it promotes oneness in farming, processing rice fields, and daily rituals. Therefore, *balian* is also called the religion of “*aruh*,” derived from the words “*a*” and “*ruh*,” where “*a*” means a consensus, agreement, in line, get along, while “*ruh*” refers to “all souls”. The word “*balian*” implies that in daily behavior, life must be “*aruh*” with the heart, oneself, the family, society, the natural surroundings, ancestral and other spiritual spirits, and the Creator. The teachings of *aruh* according to Dayak Paramasan cosmology, originate from the teachings of Suwara (God Who Speaks) which were passed down to the Balian and then passed on orally to every human being from generation to generation. All religious rituals as well as norms and laws that regulate and bind social groups are based on *Aruh* teachings. It can be said that the teachings of *aruh* have become the philosophical basis of local community life.

3.4 Philosophy of *Aruh* as collective mindset

Customs are essential to the Dayak Paramasan Meratus ethnic group’s way of life, providing a perspective that emphasizes dialogue and compromise based on the wisdom passed down through generations. They learn from customs to appreciate the value of life, which involves growing and developing in harmony with nature and respecting the environment. The mythology of the people describes the origin of life as being told by *Balian* Uliansyah:

Asal samuanya saisi alam bakajadian adalah ampun kahandak Suwara, ujar sidin.. “handak kuciptaakan saluruh daunia saisinya”. Taciptalah bumi wan langit nangkaya surga tarangnya (Balian Uliansyah). (coming from the will of the One who voiced (Suwara): “I will create the earth and the heavens of the world today so the earth and the sky are created. Shining bright, like heaven”).

Satalah diadaakan dunia limbah itu di atasnya diciptaakan mahluk Datu Adam nang pertama limbah itu Nini Tihawa. Supaya nyaman hidupnya mahluk nang dicipta wan bakaturunannya maka diciptaakan jua tumbuhan segala dan bamacam binatang tarmasuk ruh-ruh alam (Balian Uliansyah). (Suwara creates Datu Adam and Nini Tihawa, from which all humans are also created and come along with plants, animals, and all spiritual beings).

Suwara (god who has said) imparts teachings to the people, which they understand comprehensively and express through daily actions. These teachings aim to aid people in achieving spiritual harmony with all souls, as well as to be peaceful with oneself, family, society, plants, animals, and the universe. The Dayak Paramasan people believe that the philosophy of *aruh* is the key to achieving happiness.

These people also spend more time in the field hut or *lampau*, a place to contemplate the past and meditate with nature. This manifestation of *aruh* teachings has guided various behaviors of their daily life, such as wisdom in farming (*bahuma*), which involves cultivating enough to survive for a year and storing the excess in the barn for the lean season. Trees are valued as heritage or sacred places for their ancestors; hence, they use forests in moderation. The rivers are kept clear because they are where life began according to their teachings, while animals are not killed

more than necessary because life is meant to be shared with them. Sustainable living is seen as a form of worship, and not farming properly means not worshipping properly.

Aruh teachings also color their various practices, and spiritual and ancestral souls, which are always summoned in ritual, especially during *aruh* ritual time and healing ritual (*baharagu*). This great soul is consulted for advice and assistance to heal an ill person. The people also live according to customary and ancestral rules by following *balian* instructions as intermediaries of the souls.

In addition, Although there is a traditional and cultural division of duties, namely: Balian padukunan (serving as a shaman or healer); Balian adat (responsible for organizing implementation times and leading ethnic rituals); Balian panghulu (balian in charge of leading the wedding ceremony); Balian Kawasan (functions as liaison with the government); Damang (the traditional leader), this ethnic group does not have a social caste like the Hindu community in Bali. So the Balian are also equal members of a group of people who make a living by farming and gardening. They still work in the fields and are considered to have the same duties or social treatment.

A *balian* (traditional figure; leader of various conventional rituals) usually lives a simple life together with the community but possesses spiritual qualities. His purpose is to maintain harmony with self (heart, speech, actions), society, and nature. Furthermore, nature is interpreted as an inseparable part of the soul and body. According to this teaching, human death is a process to return, with the eyes returning to the stars, muscles to the roots, flesh to the soil, veins to the river flow, hair to the shady trees, bones to the iron, breath to the wind breeze, and blood to the red rose water.

This *aruh* (cohesiveness of the whole soul) can be described as their shared consciousness (collective mindset). Mindset is defined as a mental map used by a person as a basis for acting or behaving and is formed through education, experience, and prejudice. A technical understanding of mindset is a set of beliefs that affect attitude and behavior (La and Ruiz 2019) (Jacobs 2019). Meanwhile, belief is defined as accepting a proposition as truth or something that is assumed to be true (Bromberg-Martin and Sharot 2020). The TPB (Theory of Planned Behavior) model describes the components of mindset in three forms: (1) belief (behavior belief) is the cognitive aspect of mind that affects attitude, (2) value is an affective aspect underlying subjective norms, and (3) rule is a conative aspect providing the basis for perceptions regarding behavioral control (Ajzen 1991).

Mindset consists of three components: values, rules, and beliefs (supporters of values and rules). The three can be distinguished in their respective roles in predicting attitude. Values act as a compass that determines the direction of people's actions and words. Because value contains things that are important for someone to obtain and strive for. If we know someone's values, we will be able to know their beliefs (supporters of values and rules). We simply ask "why" value is important? Then, the answer is belief. The next question "how" is to know the rule. Rule is the interface between the inside world and the outside world.

For the Dayak Paramasan ethnicity, the most essential value in individual or collective life is "living with the spirit of *aruh* (collective mindset)" based on intimacy.

This value system encourages people to not only think individually (egoist) but also exchange resources in the spirit of cooperation. Therefore, their values are in line with the philosophy of *aruh*, involving intimacy, kinship, awareness, collaboration/togetherness, and social attitudes, which are intertwined with each other as well as nature, including souls, forests, rivers, mountains, etc.

This collective value of the people is reflected in their daily behavior but needs to be supported by belief. The Dayak Paramasan ethnic group has various collective beliefs which can be categorized into three groups: the meaning of life, the concept of spirituality, and the impressions of nature.

Beliefs about the “meaning of life” include various expressions, phrases, and symbols such as “Life is interrelated”; “Life is harmony”; “Positive thinking is life”; “Doing a good thing is the goal of life”; “Negative emotions make life difficult for anyone”; “Peace of mind is the origin of life”. Meanwhile, “spirituality” beliefs include god being a lord as well as a helper; prayers to medicate disease; ritual for providing help; prayers and ritual are important; all elements of nature have souls; humans and souls of nature support each other. Beliefs about “impressions on nature” are as follows, all elements of nature have souls; humans and souls of nature live in harmony; nature is part of humans; humans affect nature and vice versa; caring for nature means caring for oneself.

Self-control is used to measure whether individuals or the whole community have succeeded in achieving their value or not. Furthermore, the Dayak Paramasan ethnic group has a collective rule that serves as a requirement to determine whether they have successfully embodied the value. There are two groups of rules: those who already know the meaning of life and those still searching. Rules about “knowing the meaning of life” include the ability to feel connected, understand, live based on purpose, and feel the meaning of life. When the rule is successfully felt by individuals or the community collectively, their value has been realized. This is manifested in various ritual/traditional ceremonies. On the other hand, the rule of “searching for meaning,” consisting of having no direction of life purpose and a sense of meaninglessness, indicates that the value has not been embodied. In other words, the philosophy of *aruh* has not been in the individual self and community, which might lead to damage, conflict, illness, and disaster.

Value, belief, and rule collectively form a mindset (Anshari 2018). The teachings of *aruh* have become a mindset to live for each Dayak Paramasan and will be passed to the next generation in a sustainable way through their way of life, cultural customs and religious belief system.. This collective mindset is a philosophical basis for preventing and treating illness and maintaining health.

The concept of preventing illness and maintaining health was described from: *supaya samua mahluk nyaman wan salamatan ... ajaran bahari manyuruh kita ini harus hidup baaruh barataan* (Balian Uliansyah). (Teachings from our ancestors command us to live *aruh* so that we can live safely and happily.)

Kamalangan di raga dan pangrasa disabab hidup kada baaruh (Balian Uliansyah) (Physical and psychological pains are caused by not living *aruh* life.)

This implies that pain occurs in the physical (biological) and psychic zones of thoughts, emotions, and souls. They both originated from *aruh*, a zone of individual social relationship with other people or natural surroundings. Disharmonious

relationships or not living *aruh* can be found in the zone of social interaction. The concept of *aruh* has opened a new understanding that illness can come from the physical, psychological, and social dimensions. This concept can be developed and adopted into modern allopathic medicine system by creating awareness about biological, psychological, and socio-cultural interactions. The weakness of the modern allopathic system is very rigid in its view that all disease originates only from tissue damage, hormonal disorders, biochemical disorders without leaving room for the etiology of physiological disorders that may originate from biological-psychological-socio-cultural interactions. Dynamic doctor-patient relationships and a multidisciplinary approach to patient care should be employed to enhance the self-management of the disease (Kusnanto and Hilmanto 2018).

3.5 Description of the cause of illness (etiology)

Ethnomedicine of the Dayak Paramasan ethnicity has two types of healing ritual: *basambur* and *baharagu*. *Basambur* ritual is conducted when the pain suffered is mild, acute, or natural (physical) triggered by trauma, while *baharagu* is performed when the pain is severe or chronic. All ritual are conducted by *balian padukunan* (shaman).

The philosophy of *balian* is based on the belief that all natural environments have souls, including rocks, mountains, rivers, plants, fire, etc.

samuaan banda di dunia ini baisian ruh. Ada ruh batu, ruh api, ruh banyu, ruh gunung, ruh kayu....(Balian Usron). (All of the material elements in this world have soul of an object. There are soul of stone, water, fire, mountains, and wood.....)

...Tuhan manciptaakan jua syaitan pacang mangguda anak cucu adam. Bubuhan pangikut syaitan ini ruh-ruhnya nang mangganggu sagala macam pakara anak cucu adam nangkaya cuntuhnya panyakit..... (Balian Usron). (God creates demon whose work is always to tempt human and cause various disorders, such as illness.)

Ethnomedicine of Paramasan Meratus is based on the belief that illness occurs due to a disharmonious relationship between humans and the environment. Humans live in prosperity when they can adapt and be well received by the environment. In contrast, they are poisoned by these souls as a form of anger, warning, or sanctions for disharmony of individual behavior.

...kabiasaannya ulah kita manusia nang malanggar papantang atawa mangganggu nang manimbulakan ruh tadi manjadi sangit balalu manimpaakan racun gasan manimbulakan panyakit....(Balian Usron). (It usually occurs due to behavior of humans themselves who commit violations, causing the souls to release poisons that can cause physical pain.)

Although the general description has not yet specified sickness in soft tissues or organs such as blood, glands, and mucosal tissue, it is believed that they are caused by the souls of water, known as *Bubuhan Aing* (water community). Some examples include *Bubuhan Aing Muhara Indan*, *Danau Bacaramin*, *Maantas*, etc. Meanwhile, sickness of human muscles and bones is usually a form of disturbance from the rock souls, known as *Siasia* Benua, for example, *Kambat*, *Pantai Batung*, etc. Thought and feeling disorders, wind, paralysis, heat, and cold-related sickness are caused by

disturbance of the wind souls (*Kariau*) such as Labuhan, Padang Batung, Mantuil (Anshari 2016).

Ethnomedicine of Paramasan describes how the environment can affect human health. This is because every object in the environment is alive and has souls that enable them to interact with human souls. When the interaction is in harmony or a *aruh* condition, humans will be happy, healthy, and prosperous as a reward.

...*ada panyakit ulih sabab parbuatan urang, inya mamuja angin gasan manim-bulakan panggaring awak, limbahitu ada jua garing nangkaya kapuhuman karana tasalah lawan ruh-ruh panunggu. Ada jua garing nang wajar haja nang kaya sabab tagugur, tajajak duri atawa luka.... (Balian Usron)* (...there are types of illness due to treatment from other people, for example by sending magic to cause pain in the body. There is also pain due to breaking the prohibition (abstinence) so that the guardian of souls becomes angry. In addition, there is also natural pain due to falling, or stepping on sharp objects...).

Diseases, according to the ethnomedicine of *Babalian* are divided into three types: (1) *Alamiah* (physique), which is in the biological zone such as wounds by thorns and weapons, falls or crashes, broken bones, burns, etc., (2) *Perbuatan* illness is caused by magic directed at someone by others who worship the wind. This type of disease comes from the social interaction zone. (3) *Kapuhunan* is an illness caused by violating taboos that angers certain souls to inflict misfortune. This type of illness is from the socio-cultural interaction zone, which is in the the community's cultural beliefs.

3.6 Description of the concept of healing illness

The philosophy of *aruh* teaches that every misfortune or illness begins with a life in disharmony with the environment, therefore, the focus of ethnomedicine in confronting illness cases is not on the cause (agent) but instead on the angered soul and how to neutralize it. In other words, healing efforts are directed first to find the cause of the individual actions that cause attack by illness-causing agent.

Ethnomedicine procedures in treating ill patients are *basambur* and administering a medicinal plant herb called *pelungsur*. When the patient is not healed, there will be a *baharagu* ritual.

...*partama biasanya basambur atawa dikibas kain hirang sambil babaca mamang ini gasan garing nang hahanyar, limbah itu dibarii pilungsur, lamun panyakitnya kada talihat sambuh jua tapaksa di babaliani gasan mamuhun kapada nang kuasa ... (Balian Usron)*. (First, the patient is sprayed or fanned with a black cloth while reciting a spell for acute sickness and *pelungsur*, but if the disease cannot be cured, a *baharagu* ritual will be held as a form of appeal to the Almighty.)

Healing can be achieved in three ways. First, the soul that caused the illness might pull back the poison released when an apology is offered through *Baharagu* ritual, but this is only conducted when the cause of action by the patient is known. Second, natural energy can neutralize the disturbance. Certain medicinal plants (*pelungsur*) are believed to have energy capable of neutralizing the disturbance by spirits.

Pilungsur itu ditakdirakan Tuhan nang maha kuasa gasan malunturakan racun panyabab garing tadi... (Balian Uson). (Pelungsur fated by Almighty God has the ability to remove poisons released by souls.)

The third way healing can be achieved is with the help of the Almighty God (Suwara). Although Balian believes in the power of ancestral spirits and gods, they also believe in a supreme power who created all things. Through god's permission, all the poisons from the disturbing spirits would disappear.

Furthermore, there were two healing components: medicinal plant ingredients (*pelungsur*) and *baharagu* ritual. Medicinal herbs are obtained from wild plants and are believed to have the natural power to absorb or neutralize toxins (Anshari et al. 2015b). Another component is the healing ritual of *babalian*, which is of two types, namely *basambur* and *baharagu*.

3.7 Description of the Baharagu Healing ritual

The Dayak ethnicity in Kalimantan, Indonesia, generally conducts a healing ritual called *balian* ceremony against diseases. Paramasan ethnicity often called it *baharagu*, a ritual for treating an ill person. Healing is achieved through the request of *balian* or *guru jaya* to the Almighty God, who will evict the intruder or disease agent. During this ritual, the ill person (male or female) is laid in front of family and friends, then, *balian* performs *tandik* (rhythmic dance) and recites a spell (*mamang*), accompanied by the beating of *gendang* (an Indonesian traditional wooden musical instrument).

The philosophy of *aruh* plays a vital role in understanding the social interactions that cause sickness and the recovery cure. This insight could inspire modern medical practitioners to consider these interpersonal dynamics in public health and welfare. For example, a doctor could consider appropriate community interventions to reduce social isolation between patients and their families and the importance of the doctor-patient relationship (Lehman et al. 2017).

Gasan acara batutulungan atawa baharaguan ini pakai babarapa parsyaratan dari daun hanau, galang hiyang, langgatan langgakp lawan sasarahannya kaya bubur hirang, bubur habang atau wadai bawarna warna, kupa, hintalu, banda wasi itu pang nang salangkannya... (Balian Uson). (The complete requirements to conduct baharagu ritual are porridge and colorful cakes, coffee drink, eggs, and metal objects such as ancient money, which must be presented for the equipment).

Baharagu ritual equipment includes young coconut leaf midrib (*hanau*), which are tied to the roof/ceiling of the house, and the other end is left to hung loosely (*mayang maurai*). A tray for offerings (*sasarahan*) called *langgatan* is made from woven bamboo or rattan but is sometimes replaced with an ordinary tray. Meanwhile, the ingredients of offerings (*sasarahan/sesaji*) are drinks of different colors, namely mineral water, tea, coffee, red syrup, lime betel, incense, coins (ancient coin), brown sugar, chicken eggs, and colorful snacks as can be seen from (Fig. 2).

Kita baundangan bubuhan Aing, bubuhan Karaiau, Siasai Banua, roh sagala Banda wan tanaman samunyaan tamasuk..... limbah itu roh Bubuhan



Fig. 2 Equipment of *Baharagu* ritual and the offerings of *Baharagu* ritual

nang sangit... (*Balian Usron*) (All who were invited to dialogue are souls of water, air, soil, plants, including the human soul who is the sufferer.)

Offerings (*Sasarahan*) as a symbolic media are used to open a dialogue in an *aruh* manner to arrive at a consensus with the spirits. According to the philosophy of *aruh*, humans get ill when there is disharmony with the environment; hence, rituals often held are essentially dialogues with spirits, such as 1) natural objects including stones, trees, rivers, mountains, water, etc., 2) gods: *Aing* (water), *Siasia* (earth), *kariau* (air), and 3) the human soul who conflicts with the sufferer. The purpose of the invitation in ritual is to apologize on behalf of the sufferer who has violated the principle of *aruh*, leading to conflict and anger.

The relationship between humans and the angered soul occurs in the social interaction zone. By the principle of *aruh* teachings, conflicts are created due to disharmonious social interaction. The impact of this disharmony can take two forms, namely 1) If the patient's internal endurance is low, then the effect will be psychological disorders, stress, fear, anxiety, as well as a traumatic or psychosomatic disorder. 2) If the internal endurance is muscular, the psychological system (psychic) might not be disturbed, but the patient would still feel anger, envy, and hatred expressed by the enemy. The most common forms are magic attacks and curses.

Patients undergoing a *baharagu* procession are usually in a passive attitude and asked to be silent while sitting or lying down. Also, the sufferer requires no unique spells or conditions during the procession. *Baharagu* procession involves close-range healing, which lasts approximately 3 to 4 h. The patient is afterward needed to undergo an abstinence period for approximately two days and one night. The ritual procession is led by a *Balian* (Mr. Usran alias Abah Roni) who is assisted by a *gendang* player (*petatih*). The *petatih* not only plays/beats the *gendang* (Indonesian traditional wooden musical instrument) that must be sounded during the procession but also acts as a *pander* (translator of a dialogue) when *Balian* falls into a trance or is possessed by another soul. The ritual procession is generally divided into five stages: Opening, *Baundangan* (summoning of gods and souls), Detection, *Babangkit* (awakening), and Self Cleaning.

habis dibaliani nang garing manjalani waktu bapumantang nang lawasnya kabisanya dua hari wan satu malam kada bulih mainjak bumi. (Balian Usron). (Usually, after ritual, the patient would undergo abstinence period, which means not engaging in any activity for two days and one night).

During the abstinence period, patients are prohibited from stepping on the earth or engaging in any activity outside their homes. In addition, the patient is not allowed to interact with other humans; or receive guests. He/she can only talk about significant things with certain people who had participated in the procession and received permission from *balian*. This instruction is to give the sufferer enough time for personal introspection to reflect and show the sincerity of self-improvement to the soul. Evidence showed that clinical improvement can be achieved by controlling psychological factors. Furthermore, the post-ritual abstinence period helps control these factors internally to achieve a sense of psychological prosperity. This improvement in the quality of life is proportional and contributes positively to clinical benefits (Cilli et al. 2022; Anshari et al. 2015a).

4 Conclusion

Suwara (god who had decreed) has revealed his teachings for his people to live in *aruh* in their daily actions. These teachings regarding the cohesiveness of all souls are intended to make humans live on by developing intimacy and peace for themselves, their families, communities, plants, animals, the universe, and all spiritual forms. The Dayak Paramasan people believe that the philosophy of *aruh* brings inner and outer happiness. The teachings also color and are reflected in all aspects of the ethnic community life and form their collective mindset. Rituals are based on the principle of *aruh*, including healing rituals (*baharagu*). However, violation of this principle (disharmonious; not *aruh*) causes various illnesses.

Illness etiology in the ethnomedicine of the Dayak Paramasan can be classified into three types: *alamiah*, *parbuatan*, and *Kapuhunan*. The *parbuatan* and *kapuhunan* illnesses are caused by disharmonious relationships between individuals and the environment.

1. *Alamiah*: This illness comes from the biological or physiological zone and is caused by natural phenomena, generally by accidents such as injuries from thorns, weapons, falls, broken bones, burns, and others.
2. *Parbuatan*: This type of illnesses come from a social interaction zone that is not *aruh* (disharmony). It can be classified into two forms. One is derived internally, which occurs when individual social interaction is disharmonious coupled with a low internal endurance of the patient. Internal conflicts and psychological disorders in humans could arise in the form of stress, fear, anxiety, and trauma, causing misfortune or disease in the physique/body. The other is caused by anger, hatred, and malice hurled by external parties. Illness occurs when there is such disharmony in social interactions, but the patient has a strong internal endurance. The external form can be further divided into two classifications: 1) Opponents of conflict. The most common form of this type is magical attacks aimed at hurting

- (misfortune) the sufferer. Examples of magical illness include *pulasit*, *parang-maya*, *sangga api*, and so on. 2) *Pidara*, the spirits of nature (stones, soil, water, plants and so on). Examples of this sickness are various chronic diseases.
3. *Kapuhunan*: This type of illness is caused by violating a collective agreement in the form of taboos. They are generally caused by spirits of nature or personalistic agents and occur in the socio-cultural interaction zone, which is in the cultural beliefs of the ethnic community.

Healing rituals aim to restore *aruh* (harmonious, intimate) relationships between various parties through dialogue with souls of 1) natural objects (stones, trees, rivers, mountains, water, etc.); 2) gods: *Aing* (water), *Siasia* (earth), *kariau* (air); 3) other humans in conflict with the sufferer. A dialogue is initiated between souls to apologize to the sufferer who might have violated the principle of *aruh*, leading to conflict and anger. Therefore, this principle can be used to achieve inner and outer happiness.

In summary, the philosophy of *aruh* is a collective mindset with colored illness etiology and (ritual) healing in the Dayak Paramasan ethnomedicine.

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Authors' contributions Muhammad Anshari completes the writing of the article. The author read and approved the final manuscript.

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Availability of data and materials I have elicited the ethnographic data through oral interviews and documented it in a manuscript. I possess the manuscript data that I have collected.

Declarations

Ethics approval and consent to participate The study followed the ethical principles of ethnographic research and the informants involved were adults. They have been informed about this ethnographic study and the use of the same data collected and they have agreed to participate in the research process.

Consent for publication I have informed the studied tribe (Dayak Paramasan) about the research and publication process, they indicated their verbal consent for publication.

Competing interests The data are collected in field work by the authors so there are no competing interests. All findings have been checked for accuracy and proved to be valid and accurate.

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References

- Ajzen, Icek. 1991. The theory of planned behavior. *Organizational Behavior and Human Decision Processes* 50 (2): 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T).
- Anshari, Muhammad, Tri Martiana, Suhartono Taat Putra, and L. Dyson. 2015a. Ethnomedicine of Dayak Paramasan ethnic in the Meratus mountains (Part-2): a correlation of spiritual belief and distress level to patient who had done ethnomedicine treatment (Pelungsur and Basambur). *Journal of Applied Environmental and Biological Sciences* 5 (6): 40–42.
- Anshari, Muhammad, Tri Martiana, Suhartono Taat Putra, and L. Dyson. 2015b. Ethnomedicine of Dayak Paramasan ethnic in the Meratus mountains (Part-1): the medicinal plants for diarrhea and respiratory disorder. *Journal of Applied Environmental and Biological Sciences* 5 (5): 139–147.
- Anshari, Muhammad. 2016. Konsep Ritual Baharagu Dalam Mempengaruhi Respons Persepsi Dan Biologik Pada Praktek Etnomedisin Dayak Paramasan Meratus. Airlangga University.
- Anshari, Muhammad. 2018. Basambur Healing Rituals on Ethnomedicine of Dayak Paramasan Meratus: Collective Mindset Effect on Perception Response (Ritual Penyembuhan Basambur Pada Etnomedisin Dayak Paramasan Meratus: Pengaruh Mindset Kolektif Terhadap Respons Persepsi) CNJ: *Caring Nursing Journal* [S.I.] 2(1): 20–25.
- BPS. 2010. Kewarganegaraan Suku Bangsa Agama Dan Bahasa Sehari-Hari Penduduk Indonesia. 28 in *Badan Pusat Statistik*.
- Bromberg-Martin, Ethan S., and Tali Sharot. 2020. The value of beliefs. *Neuron* 106(4): 561–565. <https://doi.org/10.1016/j.neuron.2020.05.001>.
- Cilli, Eleonora, Jessica Ranieri, Federica Guerra, Claudio Ferri, and Dina Di Giacomo. 2022. Cardiovascular disease, self-care and emotional regulation processes in adult patients: balancing unmet needs and quality of life. *BioPsychoSocial Medicine* 1–9. <https://doi.org/10.1186/s13030-022-00249-y>.
- Foster-Anderson. 1978. *Medical Anthropology*. I. Chichester: Cambridge University Press.
- Jacobs, George M. 2019. Review of mindset. *International Journal of Pedagogy and Teacher Education* 3(1): 31. <https://doi.org/10.20961/ijpte.v3i1.22702>.
- Kleinman, Arthur. 1980. *Patients and healers in the context of culture: an exploration of the borderland between anthropology medicine and psychiatry*, 1st ed. Berkeley: University of California Press.
- Kusnanto, Agustian, and Hilmanto. 2018. Biopsychosocial model of illnesses in primary care: a hermeneutic literature review. *Journal of Family Medicine and Primary Care* 7: 497–500. https://doi.org/10.4103/jfmpc.jfmpc_145_17.
- La, Rebecca, and Wendy Ruiz. 2019. *Child, Family, and Community*. 1st ed. edited by A. Johnson. College of the Canyons.
- Lehman, Barbara J., Diana M. David, and Jennifer A. Gruber. 2017. Rethinking the biopsychosocial model of health: understanding health as a dynamic system. *Social and Personality Psychology Compass* 11 (8): 1–17. <https://doi.org/10.1111/spc3.12328>.
- Permenkes. 2009. Undang-Undang Republik Indonesia Nomor 36 Tahun 2009. *Departemen Kesehatan RI* 36.
- Radam, N. 2001. *Religi Orang Bukit: Suatu Lukisan Struktur Dan Fungsi Dalam Kehidupan Sosial-Ekonomi*. Jogjakarta: Yayasan Semesta.
- Rafiq, Ahmad. 2013. Relasi Dayak-Banjar Dalam Etnis Dayak Dan Banjar Pada Awalnya Berasal Dari Rumpun Etnik Yang Sama . Namun Kemudian Diidentifikasi Secara Berbeda Tidak Hanya Melalui Etnisitas, Tetapi Juga Agama Mereka. *Dayak Identik Dengan Kaharingan Sebagai Agama Asli*. 12(1): 117–146.
- Wardhani, D.F., D. Arisanty, A. Nugroho, and U.B. LiliUtami. 2023. The local wisdom of the Paramasan Dayak tribe in environmental management. *Environment and Ecology Research* 11: 859–872 (https://www.researchgate.net/publication/377413845_The_Local_Wisdom_of_the_Paramasan_Dayak_Tribe_in_Environmental_Management).
- WHO. 1948. World Health Organization. Constitution. Retrieved June 10, 2022 (<https://www.who.int/about/governance/constitution>).

Comments

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