



Usada: The Ethnomedicine of Balinese Society

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Abstract:

Bali has a very valuable and noble local wisdom that needs to be preserved namely Usada. Usada is ethnoscience, specifically ethnomedicine, which is owned by the Balinese people that needs to be studied and has been used as references in medical treatments. This study aims to discuss the origins of Usada, the views of Balinese people about health and illness, and the types of Usada as ethnomedicine of Balinese society. This study is a qualitatively and descriptively study with the object of study being Usada in Lontar Museum Gedong Kirtya, Singaraja, Bali. Data were collected by literature study, interview, questionnaire and observation methods. Data were analyzed qualitatively-descriptively to get a general description of Usada as ethnomedicine in Bali. The study results show that Usada is a Balinese indigenous science that has been developing more than 600 years ago. Usada is the science of traditional healing methods or traditional medicinal treatment system written in the lontar leaves using Balinese scripts - known as Lontar Usada - as a result of Balinese indigenous knowledge and wisdom. The main and primary source of Usada is Ayurveda which is a branch of Atharva Veda. Balinese people believe and view that illness can be caused by the natural power (*kuasa sekala*) and the supernatural power (*kuasa niskala*). There are 94 types of Lontar Usada collected in Gedong Kirtya with a total number of 204 versions. In the Lontar Usada was described the method to deal with the disease comprehensively both natural and supernatural basis.

Keywords: indigenous knowledge, ethnomedicine, usada, ayurveda, *balian*

Introduction:

Bali has much to tell and teach the world about its experiences. Bali based on Hindu religion has a diverse unique culture and indigenous knowledge such as *Tri Hita Karana*, *Panca Yadnya*, *Nyepi*, *Subak* and *Usada*. All of them can be classified into ethnosciences that are originally owned by Balinese people. According to Meehan ethnosciences are referring to the set of concepts, prepositions and theories that are unique to each particular culture group in the world.¹ Ethnosciences study science practices of specific cultural groups in the course of dealing with their environmental problems and activities using their own ideologies. At the same time ethnosciences are increasingly transdisciplinary in their nature.² Ethnosciences are essentially cross-disciplinary, based on increased collaboration between social sciences and humanities (anthropology, sociology, history of science, psychology, philosophy) with natural sciences such as biology, ecology, agronomy, climatology, astronomy, or medicine.³

Every culture has its particular explanations for ill health. In Bali natural or supernatural forces explain illness. So, the health management system in Bali uses two approaches namely modern medicine and

traditional medicine – an integrative healthcare. The both healthcare approaches in Bali are in line with the philosophy of postmodernism which emphasizes pluralism and rejecting the idea of a single rationality. Postmodernist perspective rejects the idea of a single rationality, which if it can only be grasped enables the achievement of Truth.⁴ Postmodern philosophy argues that there can be a truth which is not based on any particular belief system but on an agreed basis within a society at a particular time. Postmodern philosophy offers a more appropriate system for medicine.⁵

The traditional treatment of diseases in Bali is known as Usada and the Balinese traditional healer is known as *Balian*. Usada is written on palm leaves using the Balinese script which is known as Lontar Usada. In anthropology, Usada is included in ethnomedicine. According to Bhasin, medical anthropology is the study of ethnomedicine; explanation of illness and disease; what causes illness; the evaluation of health, illness and cure from both an *emic* and *etic* point of view; *naturalistic* and *personalistic* explanation, evil eye, magic and sorcery; biocultural and political study of health ecology; types of medical systems; development of systems of medical knowledge and health care and patient-practitioner relationships; political economic studies of health ideologies and integrating alternative medical systems in culturally diverse environments.⁶ While ethnomedicine is the study of ethnography of health and healing behavior in various societies. Ethnomedicine also refers to the study of traditional medical practice. According to Quinlan, ethnomedicine is the area of anthropology that studies different societies' notion of health and illness, including how people think and how people act about wellbeing and healing.⁷ This paper discusses Usada as an ethnomedicine of Balinese society including the origin of Usada, Balinese views about health and illness, and types of Usada commonly used in traditional healing in Bali.

Methods

This research is a qualitative research using ethnographic analysis model. Ethnography is the study of individual cultures. It is primarily a description and non-interpretative study. Ethnography has a fairly typical problem, namely studying ethnic and its culture, in this case Balinese ethnic and the traditional medical culture by using the reference Lontar Usada. There are two theoretical steps in qualitative research in ethnographic models, namely symbolic interaction and phenomenological flow, including social construction and ethnomethodology. There are two types of ethnographic model research, namely complete ethnography and topic oriented ethnography, which focus on one particular aspect and even move towards hypothesis oriented ethnography. In this case, this type of ethnographic research is topic oriented ethnography, where the topic is Usada. Lontar Usada is a written literature that contains ideas or even ideologies on traditional medical system that apply to a local Balinese community.

Data was collected through the literature study method, interviews, observation, and questionnaire method. Data sources were various Lontar Usada in the Lontar Museum Gedong Kirtya, Singaraja, Bali, where various Lontar Usada are collected and stored. A comprehensive literature study was done using reference textbooks and journal articles. Interview and questionnaire about types and description of Lontar Usada were carried out with Gedong Kirtya staffs and followed by observation the lontar collection at the museum. Data were analyzed using domain techniques, the results of which were surface level knowledge, and taxonomic techniques, where selected domains were tracked in more detail and depth through observation and in-depth interviews to obtain complete knowledge. The data obtained were analyzed qualitatively and described to get a comprehensive knowledge of Usada or the traditional medical system in Bali.

Results and Discussion

1. The Origin of Usada

Usada comes from Sanskrit word, *osadha* or *ausadha* which means medicine. In Bali, Usada is known as the science of traditional medicine or traditional medical treatment systems. The highest source of Usada is

Ayurveda. Ayurveda consists of the word *Ayer* or *Ayes* which means life, vitality, health or longevity, while *Veda* means knowledge.⁸ So, Ayurveda means knowledge about human efforts to live healthy into old age. Ayurveda, as a science of life or longevity, is the most holistic or comprehensive system of medicine that has ever existed, originating in India with an age of more than 5,000 years. It is believed to be the oldest healing science in existence, forming the foundation of all others. The knowledge of Ayurveda was handed down from Brahma to Daksha Prajāpati, onto the Ashwin twins (the divine doctors), then passed to Indra. Sage Bharadvāja volunteered to go to heaven to receive this wisdom from Indra, and so become the first human to receive the knowledge of Āyurveda. He passed it to Ātreya, then onto Punarnvasu and finally Agnivesha.⁸ Bharadvāja is known as human father of Ayurvedic medicine.

Originally four main books of *Vedic* spirituality existed. Topics included health, astrology, spiritual business, government, military, poetry and ethical living. These are known as the *Vedas: Rik Veda, Sama Veda, Yayur Veda* and *Atharva Veda*. Ayurveda was organized into its own compact system of health and considered a branch of Atharva Veda. This *upaveda* or branch dealt with the healing aspects of spirituality; although, it did not directly treat spiritual development. Among Rik Veda's 10,572 hymns are discussions of the three constitutions (doshas): *Vayu, Pitta, and Kapha*. Within the Atharva Veda's 5,977 hymns are discussions of anatomy, physiology, and surgery.⁸ Ayurveda as a science has eight branches of medicine, namely: (1) *Kāyachikitsā* or Internal Medicine, (2) *Shalyā Tantra* or Surgery, (3) *Shālākya Tantra* or the treatment of diseases of the head and neck, (4) *Vishagara-vairodh Tantra* or toxicology, (5) *Bhūta Vidyā* or the management of seizures by evil spirits and other mental disorder (psychiatry), (6) *Bala Tantra* or pediatrics, (7) *Rasāyana Tantra* or geriatrics, including rejuvenation therapy and (8) *Vājīkarana Tantra* or the science of aphrodisiacs.⁹ The eight divisions of the Ayurveda were followed by two works written later, i.e. *Sushruta Samhita* and *Charaka Samhita*.

Ayurveda is the most complete ancient medical system that ever existed. There were two schools of Ayurveda at the time of Atreya, the school of physicians and the school of surgeons.⁸ The School of Surgeons was developed by Divodasa Dhanwantari around the 9th-6th century BC and wrote *Sushruta Samhita* in the 5-4th century BC. The School of Physicians was developed by Atreya Punarvasu around the 8th-6th century BC and wrote *Charaka Samhita* in the 1st century AD.

Sushruta Samhita and *Charaka Samhita* are two reorganizers of Ayurveda whose works are still extant. The third major treatise is called the *Ashtanga Hridayam*, a concise version of the works of *Sushruta* and *Charaka*. The three main ancient Ayurvedic texts are still in use. These books are believed to over 1,200 years old and contain the original and complete knowledge of this Ayurvedic world medicine. Consequently, Ayurveda is the only complete ancient medical system in existence.⁸

Susruta Samhita representing *Dhanvantari's* school of surgeons is a complete work on medicine with special attention to surgery, broadly divided into two major fields of surgery: *Salya* (major surgery) and *Salakya* (supraclavicular surgeries) tantras. The compendium details about 300 kinds of operations that call for 42 different surgical processes and 121 different types of instruments. The text is long - more than 1700 pages in English translation. The *Susruta Samhita* is in two parts, the *Purva-Tantra* (the main book) and the *Uttara-Tantra* (an addendum). The *Purva-tantra* comprises 120 chapters arranged in five sections, i.e.: *Sutra Sthana* contains fundamental principles, *Nidana Sthana* describes etiology and clinical features, *Sarira Sthana* contains anatomy and physiology, *Cikitsa Sthana* explains therapeutics and *Kalpa Sthana* explains toxicology. The entire *Uttara-Tantra* has been called *Aupadravika* because many of the complications of surgical procedures are briefly described here. These two parts together encompass, apart from *Salya* and *Salakya*, the other specialties of medicine, including pediatrics, geriatrics, toxicology, aphrodisiacs, and psychiatry.^{10, 11}

Charaka Samhita representing the Atreya's school of physicians consists of eight sections and 120 chapters (*adhyayas*) and is considered the most complete encyclopedia of Ayurveda. Each section is further divided

into numerous chapters. The eight sections are Sutrasthana, Nidanasthana, Vimanasthana, Sharirasthana, Indriyasthana, Chikitsasthana, Kalpasthana, and Siddhisthana consisting of 30, 8, 8, 8, 12, 30, 12, 12 chapters, respectively.¹² Charak Samhita starts with Sutrasthana which deals with various important fundamentals and basic principles of Ayurveda. Nidanasthana deals in detail with the *nidana* (etiology), *samprapti* (pathogenesis), *purvarupa* (prodromal sign and symptoms), *rupa* (clinical features) and prognosis of the diseases are described in detail. Vimanasthana describes *janpaddhwansa* (epidemic diseases), *srotas* (channels of circulation), *aamashaya* (stomach), 20 types of *krimi* (parasites), *dwividha pariksha* (two methods of examination), *trividha pariksha* (three methods of examination) and *dashavidha rogi pariksha* (ten factors for examination of patient). Sharirasthana describes in detail of about anatomy and physiology of body, composition of body and factors responsible for growth of body, proof of existence of Atman (soul), the description of the theory of birth and death, the creations of universe and the human body and the nature of human being, nature of mind and causes of diseases. Indriyasthana mentions types of Prakruti (natural disposition), sign of imminent death and premonitory sign of sudden death, seven types of dream and their various results and process of manifestation of dreams, prognosis of diseases and fatal sign on the basis of various descriptions regarding *swapna* (dream), *swara* (voice), *gandha* (smell), *prabha* (luster), *chaaya* (shadow), *pratichaaya* (reflected shadow), *rasa* (taste) and *sparsha* (touch). In Chikitsasthana, various diseases and their principal of treatment are described in detail. Kalpasthana deals exclusively with the various formulations of *vamaka dravyas* (emetic drugs) and *virechaka dravyas* (purgatives drugs) which are essential during *panchakarma*. In Siddhisthana, there is a detailed description of *panchakarma* therapy. Essential *karma* like *snehan karma* (oleation therapy), *swedan karma* (fomentation therapy), *vaman karma* (emesis therapy), *virechana karma* (purgation therapy), *asthapana basti* (medicated enema of decoctions and medicated oils), *anuvasana basti* (medicated oil enemas) and *uttar basti* (useful in genitourinary diseases and infertility of female) are described in detail.¹² There is also description of complications arising due to improper administration of drug and with their managements.

Both *Dhanvantari's* school of surgeons and the *Atreya's* school of physicians transformed Ayurveda into a scientifically verifiable and classifiable medical system. Through research and testing, they dispelled the doubts of the more practical and scientific minded, removing the aura of mystery that surrounded Divine revelation. Consequently, Ayurveda grew in respect and become a widely used system of healing in India. Since that time, people from various countries come to the Indian Ayurveda School to learn about this medicine in its entirety and Ayurveda was spread throughout the world. Ayurveda is believed to be the oldest known medical science and is the foundation of various other medical systems. Buddhism, Taoism, Tibetan, Chinese, Greeks, Romans, Egyptians, Afghans, Persians and other medical cultures have many similarities or are in line with Ayurveda.⁸

The development of Usada in Bali cannot be separated from the development of Hinduism in Indonesia. However, before Hinduism was known in Bali, the ancient Balinese were familiar with ethnomedicine which gave roots to the Hindu medical system. The original Balinese ethnomedicine system is similar to the etiology of disease according to Hinduism, namely sickness due to *niskala* - spirit disturbance, demon possession, etc. and *sekala* - the remedy for the conquering ritual of reinforcements and concoctions using plants, certain animal parts, and/or certain minerals.

Hinduism is thought to have first developed in the Sindhu river valley in India, where the Rishis received revelations from God which were then enshrined in the form of the Vedic scriptures. From there, Hinduism spread throughout the world. Along with the development of Hinduism in Southeast Asia, the traditional Indian medical system also reached Indonesia, including Bali. According to Netra, Hinduism entered Indonesia was estimated at the beginning of the century AD.¹³ This can be known by the existence of written evidence or ancient objects in the 4th century AD with the discovery of seven Yupa pieces of the Kutai kingdom in East Kalimantan. Of the seven Yupa's, information was obtained about religious life at the time

stating that: "Yupa was established to commemorate and carry out its yadnya by King Mulawarman." Other information mentions that king Mulawarman did his yadnya at a holy place to worship the God Shiva, the place called "Vaprakeswara."

Hinduism developed in West Java starting in the 5th century with the discovery of seven inscriptions, namely the inscription Ciaruteun, Kebonkopi, Jambu, Pasir Awi, Cianten Estuary, Tugu and Lebak. All these inscriptions use Sanskrit and use the Pallawa letter which states that "King Purnawarman is the King of Tarumanegara who is Hindu. He is a valiant king and his footprint paintings are equated with the footprints of Lord Vishnu." Other evidence is the presence of bronze in Cebu, which uses the attribute of Lord Shiva. Based on these data, it can be ascertained that Raja Purnawarman is a Hindu by worshiping Tri Murti as a manifestation of God Almighty. Furthermore, Hinduism developed in Central Java, as evidenced by the existence of Tukmas inscriptions on the slopes of Mount Merbabu. This Sanskrit inscription uses Pallawa letters and is of a younger type than the Purnawarman inscription. This inscription that uses the attributes of the Tri Murti Gods, namely *Trisula*, *Kendi*, *Chakra*, *Ax* and *Blooming Lotus*, is estimated to originate in 650 AD.¹³

According to historical heritage data, it is known that Rishi Agastya spread Hinduism from India to Indonesia. This is known from several inscriptions in Java and lontar in Bali. The Dinoyo inscription, in East Java (Caka 628) states that a governor named Gajah Mada made a holy temple for Rishi Agastya, with the intention of invoking the holy power from him. The Porong inscription, in Central Java (Caka 785), also mentions the majesty and glory of Rishi Agastya. Considering the glory of Rishi Agastya, many terms were given to him, including: *Agastya Yatra*, meaning the holy journey of Rishi Agastya who did not recognize his devotion to the dharma. *Pita Segara*, meaning the father of the sea, because it sails wide seas for the sake of dharma.¹³

The entry of Hinduism in Bali is closely related to the development of Hinduism in Central and East Java which is estimated to occur before the 8th century AD. This is known from the inscriptions found in the village of Pejeng Gianyar which writes the word "Siwas Siddhanata" in Sanskrit. In Bali itself during the ancient Mataram Kingdom (between 600-1000 AD) there was already a kingdom centered at Bedulu with descendant kings from Warmadewa. It is possible that this kingdom at that time was influenced by Hindu traders or from the influence of the Mataram kingdom.

Along with the development of Hinduism in Java, seen from Lontar Usada written in old Javanese language, Usada first developed in Java and was thought to have been written most quickly in 78 AD (year of the Caka). Close relations between Bali and Java began in the 10th century, when King Dharma Udayana married Mahendradatta's daughter from East Java. During the reign of Raja Udayana in Bali, in 929-943, Empu Kuturan from East Java came to Bali and settled in Silayukti, Karangasem. In addition to providing an understanding of Hinduism, he also introduced the establishment of the *Sangghah*, the *Kawitan* temple and the *Kahyangan Tiga* temple. The *Kahyangan Tiga* temple as a symbol of *utpati-sthiti-pralina* or birth-life-death is a place of worship of the Tri Murti Gods. The manifestation of the *Kahyangan Tiga* temple forms is *Pura Puseh*, *Pura Desa* Temple, and *Pura Dalem* to worship Lord Brahma, Lord Vishnu, and Lord Shiva. When viewed from the founding of Pura Dalem and worship of the Goddess Durga, magic of Lord Shiva, as a cause of illness and symbol of the goddess of death, the problem of pain and its treatment is expected to develop in Bali in the 11th century. Then, during the reign of Raja Waturenggong at Gelgel Bali in 1460-1550 came a bhagawan from East Java named Dang Hyang Dwijendra. He has very high knowledge in the field of medicine and is able to cure almost all diseases. Due to this supernatural power he is called as Peranda Sakti Wau Rauh, the new powerful priest comes from Java. He was the one who developed the healing treatment system in Bali, so that various types of Usada emerged in Bali.

1. Balinese Views on Health and Illness

According to the beliefs of the Balinese people, illness can be caused by two causes or powers, namely *kuasa sekala* and *kuasa niskala*. *Kuasa sekala* is visible, tangible and finite forms causes of illness, such as knife wounds, colds due to rain, broken bones due to falls, infectious diseases due to microbes (fungi, bacteria, and viruses), tumors or cancer due to carcinogenic substances, etc. While the *kuasa niskala* is a cause of illness that is not visible, unreal and without a definite form, such as swollen body for unknown reason, and various other illness with unknown causes such as black magic, *desti*, *pepasangan*, *bebai*, *teranjana*, etc. The illness with the *kuasa sekala* can be treated by modern and/or traditional healers, while the illness with *kuasa niskala* can only be treated by traditional medicine.

Foster and Anderson stated that the causes of disease (etiology) can be divided into two groups, namely those caused by naturalistic and personalistic powers.¹⁴ In line with Foster and Anderson, Bhasin stated that there were two causes of pain, namely natural power and supernatural force.⁶ The naturalistic concept is recognized as a balance in the human body. If this balance is disturbed by external factors, such as weather, climate change, physical, chemical, biological, and social factors, and factors in the human body itself such as age, emotions, etc. then we are sick. While the personalistic power factors are the power in the form of supernatural beings, spirits, has a form but not visible. This personalistic power is in the form of non-human and supernatural, such as spirits, demons, ghosts and the like. For Balinese society, the *kuasa sekala* can be equated with naturalistic or natural power and *kuasa niskala* with personalistic or supernatural power. Therefore, Balinese people believe that our live equally in two worlds, the seen or conscious world called *sekala* and the unseen or psychic world, called *niskala*. In traditional Balinese healing, both of these elements are addressed in order to truly heal an ill patient. Bali is famous for its long history of traditional healing therapies, known as Bali Usada. Balinese traditional healing practices use natural herbs and spices, holistic therapies and ancient wisdom to cure physical and mental illness. The Balinese traditional healer is known as *Balian*. *Balians* play an important part in Balinese culture and help the patient restore balance in both worlds. *Balians* work with divine energy to treat physical and mental illnesses, remove spells and channel energy from ancestors. Some *Balians* have learned their art from studying the ancient scriptures called *Lontar Usada* and apprenticing with a master. Others have received *wahyu* or divine inspiration and heal from the heart. Both have an esteemed place in Balinese society.

In order to understand health and illness, the books of *Sushruta Samhita* and *Charaka Samhita* can be used as references. The source of both books is the Ayurveda scriptures from Upaveda. According to Ayurveda, the universe (*buana agung* or the macrocosm) and the human body (*buana alit* or microcosm) are made up of five primordial elements, called the *Panca Maha Bhuta* - the five basic elements forming nature, namely *akasa* (ether or empty space), *bayu* (air), *teja* (fire), *apah* (water), and *pertiwi* (earth). The five basic elements were created from the unity of *Purusa* and *Prakerti*. These elements themselves are not alive, but in combination give rise to three main biological substances or forces or principles in the human body, which are called doshas. The five eternal substances - space, air, fire, water and earth - combine to form the human body by creating three vital energies, known as *Tri Dosha*, namely *vayu*, *pitta*, and *kapha*. *Vayu* is formed by the interaction of the *maha bhuta* elements of space and air. *Vayu* may be understood as nerve force, electron-motor, physical activity or that which is responsible for motion, which causes the body movement. *Pitta* is formed by the *maha bhuta* elements of fire and water. *Pitta* relates to internal fire, bile, body heat, digestive enzymes, physio-chemical, biological, metabolic and endocrine system which regulates the metabolism and transformation of the body. *Kapha* is formed by the structural properties of the element of *maha bhuta* earth with water. *Kapha* fills the intercellular space of the body as connective tissue and acts as a lubricant for various body tissues.¹⁵ All three *dosha* are found in all that is matter and therefore in all people. They govern all biological, psychological and physiological functions corresponding to the 'body' and 'mind' and act as a basic constituent and protective barrier in the body in its normal functioning to

maintain it in a dynamic state of health. Because the combination and proportion of the three *dosha* will vary for each person it bestows unique physical and psychological characteristics on each individual. Every human being has a balance of different elements, where one *dosha* usually stands out in our constitution and determines our personality.

These three *dosha* must be in a balanced state so that the body remains healthy. When the balance of the three *dosha* is disturbed, the body will get sick. The balance of these *tri doshas* can be disturbed by foreign elements that enter the human body or are outside the human body. These foreign elements can be tangible and can also be intangible (non-physical matter). These foreign elements are often called the *kuasa sekala* or natural elements and *kuasa niskala* or supernatural elements. The *kuasa sekala* are natural elements, such as changing temperature, physical impact, poison, microbial, etc. which can be seen and proven to exist. While the *kuasa niskala* are subtle forms, such as *desti*, spirit, ghost, jinn and the power of black magic, and others. These two elements enter the body or remain outside the body and result in an imbalance in the existence of *tri dosha*. The *tri dosha* elements will react to foreign elements that enter the human body or that remain outside the human body. If the *pitta* element reacts and the amount increases, then the body will become hot (*panas*), because the *pitta* element is hot. On the other hand, if the *kapha* element reacts, then the body will become cold (*dingin*), because the *kapha* element is cold. If the *vayu* element reacts, the body will become between hot and cold or *dumelada*. The body will have excess wind, in Bali it is called catching a cold (*masuk angin*) or a feverish body (*badan meriang*), the air is inside the muscles, bones, or skin.

There is a close relationship between *Tri Dosha* and *Tri Guna*,⁸ Table 1. The Ayurveda literature shows that *Tri Dosa* (*Vayu-Pitta-Kapha*) is a physical aspect of humanity while *Tri Guna* - the Three Mental Qualities (*Sattwam-Rajas-Tamas*) - is an aspect of human psychology. The three *gunas* are found in nature and in the mind, paralleling the three *doshas* of the body. *Sattwam*, or purity, is the preferred mental state because a person with this quality is calm, alert, kind, and thoughtful. A person whose mind is predominantly *rajasic* (too active) is always seeking diversions (incessant activity). The *tamasic*-predominant mind is a dull, lethargic mind. Just as combination of *vayu*, *pitta* and *kapha* exist for the body, the mind has combinations of *sattwam*, *rajas* and *tamas*. Individuals whose minds are *sattwam* and *rajastic* are those who enthusiastically study spiritual and holistic measures to improve themselves. *Rajastic* and *tamastic* minded people will actively work and exercise to overcome their lethargy. According to Shilpa and Murthy, *Tri Dosa* and *Tri Guna* are interconnected.¹⁶ *Vayu* is significantly and positively related to *Rajas* ($r = 0.324$) and *Tamas* ($r = 0.456$), *Pitta* is significantly and positively related to *Sattwam* ($r = 0.200$) and *Rajas* ($r = 0.136$) while *Kapha* is positively and significantly related to *Sattwam* ($r = 0.414$). This means that there is a close relationship between physical and psychological (mental) human beings, or vice versa. Therefore, if a physical human being is sick, it will affect the mental (mind) of human and if mental (mind) human is sick then the physical will also be sick.

Table 1. Qualities and Characteristics of Tri Dosha and Tri Guna in Human nature⁸

| Cosntituents | | Qualities and Characteristics of Personality |
|--------------|---------|---|
| Tri Dosha | Vayu | <ul style="list-style-type: none"> • Responsible for motion which causes the body movement • Unpredictable, erratic in all behaviour, fast and restless |
| | Pitta | <ul style="list-style-type: none"> • Regulates the metabolism and transformation of the body • Short tempered, precise, sharp and decisive |
| | Kapha | <ul style="list-style-type: none"> • As connective tissue and acts as a lubricant for various body tissues. • Stable, predictable, slow, dedicated and thorough in all activities |
| Tri Guna | Sattwan | <ul style="list-style-type: none"> • Intelligent, fortitude, gentle, truthful, benevolent, and virtuous • Influence creates comprehension, the need for unity and healing and creates a positive mental outlook |

| | |
|-------|---|
| Rajas | <ul style="list-style-type: none">• Energy, harsh, angry, excessive activity, strong emotions, inclining towards violence and aggression• Influence creates indecisiveness, unreliability, hyperactive and anxiety• Mass, heavy, obstructing, ignorance or lack of knowledge (confused), inactivity, sleep (more), generally dejected always and indecent |
| Tamas | <ul style="list-style-type: none">• Influence creates fear, a seville attitude, dishonesty, depression, self-destructiveness, addictive behavior, sexual perversions, animal instincts or suicidal thoughts |

For Balinese people, the concept of health and illness is also associated with the powers of the Lords, especially with the Lords of Tri Murti.¹⁷ When the body gets warm, then the *pitta* or Lord Brahma element causes it. If the body is cold, the element of *kapha* or Lord Vishnu makes it. If the body is feverish - actually, between warm and cold - it is caused by the *vayu* or Lord Shiva. In order for the body to return to normal, or from illness to health, it must be given drugs or actions that can recovery the *tri dosha* to its normal state. A hot body because of Lord Brahma must be treated by Lord Vishnu who is cold or *tis*. Used medicinal ingredients derived from plants that have the power of Lord Vishnu, *tis*, accompanied by the Vishnu-puja. A cold body because of Lord Vishnu is treated by Lord Brahma who has the power to warm the body. The herbs of God Brahma which is warm or *anget* are used and accompanied by the Brahma-puja. Likewise, if the body is caused by Lord Shiva, it is treated with an herb that has the power of the Lord Shiva, *dumelada*, accompanied by the Shiva-puja. Disease caused by Lord Shiva is only Lord Shiva who is able to treat it. Similarly, the herbs used as medicines have their own properties and recovering powers. There are plants that have the properties of warm (*anget*), there are cold (*tis*) and some are in between warm and cold (*dumelada*). A more detailed description of medicinal plants and their classification, warm (*hangat*), cold (*tis*), and between warm and cold (*dumelada*), can be found in the Lontar Usada Taru Pramana.

In the concept of healthy and illness views of the Balinese, Dalem temple with the *sakti* of Lord Shiva, namely Dewi Durga plays a very important role. According to some Lontar Usada, Dewi Durga is the cause of all diseases in this world. Goddess Durga is actually an incarnation of Goddess Uma. The beautiful Goddess Uma, one day made a mistake, so her husband Lord Shiva was very angry. Then the goddess Uma was condemned to turn into a giant according to her very rude behavior. Goddess Uma who has turned into a giant must live in cemetery and eat corpse to make a living. In order to keep the corpse available every day for His meals, Goddess Durga was given a power by Lord Brahma who felt sorry for His fate to be able to cause epidemics in humans so that humans died. Because of this supernatural power, humanity is very afraid of Goddess Durga. Fear of disease and then die, then the body is eaten by this Giant Goddess.

To diagnose or predict an illness through examination is not easy. Likewise for therapy or treatment as well as choosing and making medicine for Balian must be done alone. The *Balian* or *Battra*, Traditional Healer, must study diligently and fulfill some very strict requirements, physically and mentally must be strong, many books must be read to perfect their expertise. All of these books are collected in Usada Sastra, a collection of Hindu medical books.

2. Usada: Balinese Traditional Medical System

Usada is the holistic alternative medical treatment in Bali and is more than 600 years old. It is a noble heritage from ancestors and passed down from generation to generation both verbally and in writing. This traditional medical system in written form was published in Lontar Usada. The development of Usada writing in Bali is estimated to occur during the reign of King Watuenggong in Gelgel in 1460-1550, when Dang Hyang Dwijendra came to Bali.¹⁸ The original Usada was written on palm leaves obtained from a

palm tree (Balinese: *ental*; Latin: *Borassus flabellifer*, family: Palmae) using Balinese script in old Javanese or Sanskrit language which is known as Lontar Usada Lontar. Lontar age is estimated to reach 300 years, and must be rewritten, at least once every 300 years. Lontar has a rectangular shaped with a length of 35-55 cm and a width of 3.5-5.0 cm. Each lontar generally contains between 30-50 pages. Each palm leaf page contains four lines of sentence and is written using a special knife with a sharp triangular end known as *pengutik*. The Balinese script used consists of (1) vocal: a-kara, i-kara, u-kara, e-kara, o-kara, plus v and l characters, (2) consonant (*wianjana*): ha, na, ca, ra, ka, da, ta, sa, wa, la, ma, ga, ba, nga, pa, ja, ya, and nya; and (3) multiple characters such as ksa, tra, jna, etc. At the beginning of the contents of the lontar usually written "*Om awignam astu nama siddam*" which means "Hopefully there are no obstacles" and then followed by description of the contents of the lontar.

In general, the lontar about treatment in Bali can be grouped into three groups, namely the *lontar tutur* or *tattwa* (philosophy), *lontar usada* (medicine), and *lontar wisadha* (toxicology). *Lontar tutur* or *tattwa* contains the teachings of anatomy, physiology, healthy-sick philosophy, magical characters, symbols of the disease repellent and for healing, a good time (*ayuning dewasa*) to treat the disease, rules about to be healer, and various interpretations of health-sick problems. Lontar usada contains about examining patients, predicting illnesses (diagnosis), pharmacology, therapies, prognosis and various ceremonies relating to problems of prevention, treatment and rehabilitation.¹⁷ While, *lontar wisadha* contains various types of poisons or *celetik* and how to handle and treat them.

There are more than one hundred thousand of lontar usada and distributed in various places in Bali, outside Bali and even abroad. Bali has the oldest lontar museum in the world called the Lontar Museum Gedong Kirtya located in Singaraja, North Bali, which was built on June 2, 1928 by Herman Neubronner van Der Tuuk, during the Dutch administration in Bali. The museum has 1,808 types of lontar collections kept in wooden box (Figure 1b) with a total of 7,977 lontars. The lontar collection includes *weda*, religion, *wariga*, *itihasa*, *babad*, and *tantri*. The Lontar Museum Gedong Kirtya has 78 types of lontar usada and 16 types of lontar wisadha with a total of 204 lontars. The common usada are usada *taru premana* (3 versions) followed by *kalimosada* (8 versions) and *usada rare* (8 versions). One type of lontar usada has several versions depending on the origin of the lontars. All of them are documented in that museum either in their original manuscripts or re-written manuscripts.

In the introduction of *Lontar Usada Taru Premana*¹⁹ with identification number of IIIId.1854/12, tells the origin of Usada. It is said that Empu Kuturan, a great healer, one day had a failure in treating patients. He felt disappointed and very ashamed, then did meditation in a sacred cemetery for a month and seven days. Finally, he hears a voice or *sabda* from Batari Kahyangan which gives him ability to communicate with plants so that he had knowledge about the benefits of various plants to cure various diseases, as citation below.

"Om awignam astu nama sidam. Iki keputusan Taru Premana, duking atita hana anama Sang Prabu Mpu Kuturan, amalaku adudukun."

"Kunang pira laminira sida sisi angusadani, hana pwa masanya maneda bagya, sahananing wang kang tinambanan de Sang Prabu Mpu, hana sata Gananya, sawiji, tanana waras, nahan heto Sang Prabu Mpu Kuturan, ti saya mageleng ring angganya dawak, lan tan tuna kedwa anangunya saha ndewasraya ring setra Luhuring pamuhunan, genep pwa salek sapta dina."

"Tumurun Bhatara ring Khayangan, asung awawarah, lamakane ruh angarad atatana ri ya apaparan gunanya suwang-suwang. Wus mangkana, Sang Prabu Mpu Kuturan, teher angarad taru lata treng gulma, pratamanya datang pwa tang wreksa wandiri aturnya; "Inggih Ratu Sang Prabu punapi awinan I Ratu maswabawa kadi menggah, tur ngasengin kadi tityang." Nagandika Sang Prabu: "Kēnē iba bingīn, wirēh anakē dadi balian, tan sisi negerang jani makeneh nakonang tekēn i kayu niri-niri, apa gunannyanē, kēnkēn dagingnyanē mwang dadi anggon ubad apa". I Taru bingīn mapamit, Sang

Prabu Mpu Kuturan malih ngarad, raris rawuh wit Kasēlaguwi, sasampunē tinakēnan annuli/matur, tityang mawasta Kasēlaguwi, daging tityangē tis, dados anggēn tamba loloh rarē wawu matuwuh limang rahina, akah tityang anggēn uwap” (Lontar Usada Taru Premana. ID No. IIIId/1854/12.)¹⁹

This story is similar to the descent of Ayurveda, where Maha Rsi Bharadvāja received the noble knowledge of Ayurveda from Lord Indra, which came from the Prajāpati Daksha, as described above. In Bali, Daksha Prajāpati, son of Lord Brahma, is worshiped at the Prajapati temple which is located in a cemetery. The Daksha Prajāpati is the father of Dewi Parwati or Dewi Durga, Betari Khayangan, who gave Usada's knowledge to Prabu Mpu Kuturan.

There are several types of Lontar Usada. Some of them are *Ratuning Usada* (the mother of usada), *Usada Wong Angering*, *Tetenger Beling* (how to predict pregnant), *Usada Taru Premana* (herbal medicine), *Usada Buduh* (how to treat people mental illness), *Usada Rare* (medicines for babies and children), *Usada Kacacar* (the method to treat smallpox), *Usada Tuju* (the method to treat rheumatic diseases), *Usada Pamupugan* (method to treat people with black magic illness), *Usada Manak* for maintenance of pregnant, *Usada Paneseh* for pregnant woman, *Usada Dalem* for internal medicine, *Usada Ila* which is used to treat leprosy, *Usada Netra* for treatment of eye diseases, etc. It is not possible to discuss all Lontar Usada and their contents in this paper, so it will be briefly described for a few usada.

2.1 *Usada Ratuning Usada* (the mother of usada)

This Lontar consists of 51 sheets with 102 pages that contain about how to diagnose, prognosis, causes and treatment of diseases, as well as medication for people who do not like to eat. Various types of diseases described in this Lontar Usada include warm, cold, pain in the liver, abdominal pain, diarrhea, dysentery, *mejen*, mucus (*lelengedan*), leprosy (*ila*), aching in inside part the body (*pemali*), swollen and pain in the joints, bones and muscles (*tuju*) and enlarged stomach (*buh*). This Lontar Usada contains pictures or images that cause disease and pictures or images that can fight the disease, such as heat illness caused by image of *Anaki Raweh* in the form of a giant picture with the sound "*ah kun mayakun*" and which can be devastating to this giant is image of *Anaki Sugian* in the form of a straight haired *janger* picture with the sound "*ah sudha kun*." The medicine used to cure this heat illness is made from the ingredients of *temu tis*, galangal and lime, sliced, then wrapped with banana leaves and put in hot ash. After boiling, the mixture is ground until smooth, allowed to stand for a moment, then the water is taken and added *lungid* extract, *maje kane* and *lurungan* oil. When the medicine is drunk, say the mantra "*duh Anaki Sugian*." For external medicine, the ingredients are *janma* bark, *maduri* wood and *sindrong*, sliced, crushed, added *dewandaru*, after being cooked, cooled, then used as scrub for upper part of body. For the limbs used *wangkab* skin, *pangi* skin, a mixture of garlic, *masui*, *jangu*, sliced, added *arak*, and used as scrub.

2.2 *Usada Wong Angering* (diseases that people make)

This Lontar Usada contains several some tools and *mantras* to heal, delay, reduce, subdue and reject various diseases made by people. To cure long-term illnesses, the tool used are in the form of *ongkara* yatra with *gantungan ra* made on copper plates and a yatra on lontar leaf accompanied by offerings and mantra: "*Ong ta kita bhuta pisaca Sang Pulung Dengan sanak sahana wus momo denta anganti kulit daging, dalem hatine I Anu, apan aku weruh ring kakatuanmu kayogan bhuta lawan Bhatari doh tang ko mulih maring kahyangan, waras.*" The medicine used is 3 pieces of *Erythrina variegata* leaves, tied with red-white-black yarns (*tri-datu*), put in a black earth pot filled with water accompanied by mantra: "*Duh sira Sang Hyang Triwikrama, Sang Hyang Brahma anyapuh lara panes, Sang Hyang Wisnu anyapuh lara aserep, Sang Hyang Iswara mitip patuh, sing teka pada patuh, poma, kedep sidi mandi mantraku.*"

2.3 *Usada Tetenger Beling* (pregnant diagnosis)

In this Lontar Usada is described about four siblings (*kanda pat*) who accompanied the fetus or baby (Kanda Pat), the ceremony to welcome pregnancy, treatment of pregnant wife, various pregnancy diseases, abstinence that must be obeyed when the wife is pregnant and how to treat the placenta and carry out ceremonies when the baby born. In the front part of this Lontar Usada is described about the entry and exit of *kanda pat* who accompanied the fetus in the womb and the baby after birth. The four siblings or *kanda pat* are (1) *Sang Anggapati* with *Ang* script comes from amniotic fluid, enters through the eye, can go in and out on sperm or ovum, (2) *Sang Prajapati* with *Ung* script comes from blood, goes in and out through the ears, (3) *Sang Banas Pati Raja* with the *Mang* script originates from the *lomas*, in and out through the mouth, and (4) *Sang Banas Pati* with the *Ong* script comes from the placenta, in and out through the nose.

The welcoming ceremony of the pregnancy uses an offering *peras penyeneng* and placed at the entrance gate of the house. The pregnant woman is asked to focus to God in front of the offering and be sprinkled with holy water (*tirta*). This ceremony should be carried out on *Saraswati* day, the day of sciences, so that the fetus becomes a smart and wise person in the future. During the wife is pregnant, the husband must be polite, must not speak harshly, must not hurt the heart, may not torture, may not wake the wife who is sleeping soundly, and may not step over the wife's body because at that time *Sang Hyang Sukma* is forming fetal souls, must not be disturbed. During eating, the pregnant wife should not be disturbed, because *Sang Hyang Kemit* and *Hyang Pangaraksa Jiwa* are doing yoga meditatively, should not be disturbed. If disturbed, *rajas* and *tamas* more powerful than *sattwam*, while trials, *kemomoan*, and ignorance will be more powerful than wisdom in the fetus or baby.

2.4 *Usada Taru Premana* (medicinal plants)

Usada Taru Premana is a traditional method of medical treatment by utilizing various herbs as medicines to treat diseases. In the description, it is told that plants came and faced an Mpu to convey the name, nature, parts, additives, types of diseases that could be treated, how to mix and how to use them. According to Lontar Usada Taru Premana with identification number of IIIId.1854/12, there are 160 types of plants that can be used to treat various types of diseases. Plant parts have certain characteristics - cool, warm and between warm and cold - and in their use was mixed with various other ingredients, both organic and inorganic. This Usada also outlines how to use it, such as scubed, drunk, dropped and sprayed on the part of sick body. For example, my name is moringa tree with cool flesh, cool red gum, warm roots and my leaves can be used as medicine for eye pain, mixed with *Citrus aurantifolia*, salt that is burned, filtered and precipitated, the extract is used to drop sore eyes.

2.5 *Usada Rare* (baby and child)

Usada Rare is a traditional treatment system for babies and children. According to Lontar Usada Rare number IIIId.1422/16 there are around 150 types of diseases in babies and children using about 170 species of plants as medicine. In this Usada is explained the types of diseases in babies and children as well as the signs, types of plants and other materials that can be used as medicine, how to mix them, and how to use them. For example, if a baby is weak without energy, the baby is infected with *upas tawon*, the medicine is an herb consisting of sugar, sinrong, and lime juice. This medicine is mixed and drunk it. If a baby has *tiwang penyuu* with the symptoms, hands, feet, and body spasms, and his eyes are red, the ingredients for the medicine are *tuba jenu*, nutmeg, incense, *sarilungid*, *sinrong*, then mixed and drunk it.

2.6 *Usada Buduh* (mental illness)

Usada Buduh is a medical treatment for people with mental illness or insanity. This Usada explains the varieties of mental illness and the treatments are also varies. In this usada, eleven mental illnesses are

described, including (a) mental illness suffered by an insanity person who likes to sing, (b) mental illness in people who often cry, (c) crazy people who like to laugh, (d) crazy people who likes to play poop, (e) crazy people who are often accompanied by epilepsy, (f) crazy people who often speak abysmally, (g) crazy people with traits that like to sleep and do not want to eat, (h) crazy people with traits fierce, (i) crazy people with swollen bellies, (j) medicine for common crazy people, and (k) crazy people who often scold shamans. For example, a drug for crazy people with a characteristic who likes to sleep and is not comfortable eating and drinking is seven betel leaves which left and right veins meet in the middle, are completely encroached, seven grains of pepper and salt, are made juice to drink, and the pulp used to spur the whole body of a crazy person.

2.7 *Usada Kucacar* (smallpox)

Usada Kacacar is medical treatment which is used to treat sick people with smallpox. In the world of health, smallpox is called varicella disease. This disease is very contagious and many attack children under the age of 10 years. The treatment of smallpox is rather complicated because it is accompanied by a ceremonial treatment. It must be used offerings and Balinese coins (*uang kepeng*).

2.8 *Usada Tuju* (rheumatism)

Rheumatism is a disease that is characterized by pain on parts of the body, such as the waist, knees, joints and bones. *Usada Tuju* describes rheumatic diseases that attack certain body parts and the methods to treat them. According to this *usada*, rheumatism in the waist that feels hot, the ingredient is a mixture of candlenut, soaked rice, burning shallots. The ingredient is mashed and sprayed on the waist of the sick person.

2.9 *Usada Paneseh*

Usada Paneseh is a treatment and maintenance for pregnant women. If the placenta does not come out it can be treated with fresh water then the water is placed in a black shell, drawn with magical series of characters and pictures and then drink the water. The mantra is *ong luwu tumbuh di duhur batu, teka kapo blabare uli di gunung, teka anud*. To remove the placenta, it can also be treated with *kamurugan* leaves and wine and then drunk. The disease can be treated with 7 slices of ginger and *Eclipta alba*, crushed both at the front of door, then used as drug.

2.10 *Usada Dalem* (internal disease)

Usada Dalem is a treatment for internal diseases. These diseases have many types so that it also results in a variety of treatments. *Usada Dalem* describes various medicines related to the inner human body, such as diseases affected by poison, stomach ache, anyang-anyangan medicine, swollen stomach, signs of death, and drugs related to the health of female and male reproductive organs. For example, medicine for a swollen stomach and coughing out of pus is treated with turmeric, *Alstonia scholaris* bark, *Cryptocarya massoia* wood, ginger, three coriander seeds, coconut oil and then drink it. Another medicine is young candlenut leaves, sandalwood, hibiscus tree, *C. massoia* and candlenut, which are then sprayed.

2.11 *Usada Ila* (leprosy)

Usada ila is *usada* which is used to cure leprosy. According to this *usada*, this type of disease can be recognized by its color. On page 1 of the *usada*, it is stated that you should be aware of leprosy by its color. If the color is white it is called *ila lungsir*, if it is red it is called *ila brahma*. If it is white with spots it is called *ila kangka* and if it is red and thick it is called *ila dedek* and if it is red and circular with a white border it is called *ila kakarangan*. If the leprosy is red in layers, it is called *ila buta* (blind). In the text, various leprosy are treated according to the type of disease. For example, the medicine for *ila lungsir*

disease is *pangi* bark, *bila* bark, and *sinrong wayah*. The bark is crushed until soft and added with the annual vinegar, then the ingredients are mixed like a powder. If *ila lungir* has circular symptoms of thick white color, the medicine is bitter ginger, *isin rong*, clove flowers, Javanese chilies, *warangan terusi*, red sulfur and yellow sulfur then crushed and mixed with lime juice. The drug is used to smear on the sick body parts.

2.12 *Usada Keling* (spasms)

Usada Keling describes various illnesses of *tiwang* (spasms), their causes, and traditional treatments using special traditional methods with *mantra*. There are *tiwang bumi* (swelling in the stomach), *tiwang jawat* (itching on the body), *tiwang susu* (throbbing in the body), *tiwang nuju angin* (dizziness in the eyes), etc. The *Usada* contains information about medicines and *mantras* of all kinds of *tiwang*, and it is mentioned that there is a very dangerous type of *tiwang* named *tiwang dongkang* or *tiwang dopang*. The characteristics of this *tiwang* are pain in the waist until it is bent and if not treated in three days the sufferer cannot be saved. The description in the *Usada* is followed by other types of treatment such as *panuwed*, *tutuh hidung*, *loloh* (a type of herb that is drunk), *yatras* (rerajahan), handling *guna bebai*, and neutralizing haunted areas. The *Usada* is ended by the teachings of *Sanghyang Sarwa Griguh* in connection with traditional medicine including all the procedures and its facilities.

2.13 *Usada Netra* (eye disease)

Usada Netra discusses various diseases that can occur in humans and its treatment. *Usada Netra*'s treatment is based on experience, *sabda* or revelation by utilizing plants, *mantra*, magic symbols or yantras (*rerajahan*) to treat various diseases. Based on its name, *Usada Netra* is a medical science for eye diseases. However, in reality, in *Usada Netra* not only listed eye diseases, but there are treatments for stomach ailments, head diseases, diseases with symptoms of heat /cold, chills, internal diseases with symptoms of fatigue, wound disease, itching, and ulceration, diseases in baby, even for the treatment of venomous animal bites.

Based on the name of *Lontar Usada*, the contents of *Lontar Usada*, the materials used to make it, how to make it, and the script and language used, it can be said that most of *Lontar Usada* are the results of Balinese indigenous knowledge, so that *Lontar Usada* can be said to be local wisdom or ethnoscience of Balinese society. All plants that are used as a treatment facility listed in the *Lontar Usada* are present and growing in Bali, although at present some plants are difficult to obtain and even no longer exist. Similarly, the name of the term diseases listed in *Lontar Usada*, such as *tiwang*, *bengka*, *beteg*, *mejen*, *ila*, *tuju*, *ngetug*, *jampi*, etc. and the terms used in drugs administration, such as *loloh*, *boreh*, *simbuh*, *tutuh*, *oles*, *usap*, etc are Balinese terms. However, outside influences also exist, such as the use of *uang kepeng* (Chinese coins) and incense from China as a means of healing.

According to Bhasin the medical systems of all groups can be simply divided into two major categories: (i) disease theory system and (ii) a health care system.⁶ A disease theory system embraces beliefs about the nature of health, the cause of illness, and the remedies and the other curing techniques used by doctors. In contrast, a health care system concern with ways employed by the society to deal with sickness and maintenance of health. For the Balinese, *Ayurveda* is a disease theory system and *Usada* is a health care system.

Basically, there are two systems of health care in the developing world: one is traditional and the other is Western in derivation. The concept of traditional medicine is a conventional term used by medical scientists to refer to the empirical medical systems used in different cultures all over the world. Each society has its own worldview of origin, causes, concepts, practical therapies of sickness and has also developed the specialists that know how to apply them. Traditional medicines include all kinds of folk medicine, unconventional medicine and indeed any kind of therapeutic method that had been handed down by the

tradition of a community or ethnic group. The medical traditions in the traditional system are diverse in their historical background, theoretical logic and practices, their contemporary social realities and their dynamics. Traditional medicine, as defined by the World Health Organization, is the sum total of the knowledge, skills, and practices based on the theories, beliefs, and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health as well as in the prevention, diagnosis, improvement, or treatment of physical and mental illness.²⁰ This medicine has been handed down from generation to generation, whether verbally or in writing. In contrast to traditional health care system, the official health care system is based on Western science and technology.

The term “Traditional Medicine” or “Traditional Systems of Health Care”, refers to long standing indigenous systems of health care found in developing countries and among indigenous populations. These traditional medical systems view humanity as being intimately linked with the wider dimension of nature. The World Health Organisation has referred to these systems as “holistic”- i.e., “that of viewing man in his totality within a wide ecological spectrum, and of emphasising the view that ill health or disease is brought about by an imbalance, or disequilibrium of man in his total ecological system and not only by the causative agents and pathogenic evolution”.

Ethnic medical literature has defined two types of Traditional Health Systems - the naturalistic system and personalistic system. The naturalistic systems have been described as those, which are natural sciences with controlled investigation of documented material medica having a comprehensive theoretical framework against which treatments are tested and new treatments are generated. The personalistic traditions have been described as these which have the knowledge of healing, possessed by an individual either selected by someone in the community or by a process of divine revelation, or by revelation of some form.

Conclusion

Bali has a valuable local wisdom, namely Usada. Usada is a traditional Balinese healing method written in the Lontar Usada that has been passed down from generation to generation for more than 600 years. It can be said that Usada is Balinese ethnomedicine. The source of usada is Ayurveda and the highest source is Brahma, the Almighty God. This knowledge was passed down by the Almighty God for the survival and prosperity of humanity on Earth. Although the source is Ayurveda, Usada is not a Vedas, because it is a result of human activity, Balinese people. Balinese people believe that human nature consists of two kinds of entities, a self and a material body. This self is different from, but related to, the body. The body is a physical or material entity consisting of five primordial elements or *Panca Maha Bhuta*, whereas the self is a spiritual or immaterial entity called a soul. The soul exists in a physical body and that is conscious and rational. Based on the philosophy, Balinese people view health and illness as an integral part of spiritual life and the cause of illness can be natural power (*kuasa sekala*) and supernatural power (*kuasa niskala*). So, handling of sick people in Bali must be holistic and pay attention to both *sekala* and *niskala* aspects. Usada provides holistic medical treatment for illness with attention to both aspects. This is in line with postmodern views in healthcare.

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