

Ethnography of the Traditional Knowledge and Healthcare Practices of the Ayta Communities in Pampanga: Its Contribution to the Traditional Knowledge Digital Library on Health

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ABSTRACT

The younger generations of Aytas are now transitioning from the use of traditional knowledge and practices to contemporary healthcare practices. The lifestyle change of the younger generation of Aytas is influenced by modernization, technology, government and non-government support, and incentives for the healthcare system. Such declining interest and discontinuance of their traditional healing practices threaten their traditional knowledge and practices on health that their ancestors have developed through centuries. A systematic and comprehensive endeavor to assist communities in documenting and upholding their healing traditions may be valuable in addressing this situation. Earlier documentation on traditional knowledge and practices can be enhanced with this project to cover the breadth and depth of the body of Philippine traditional knowledge and practices on health. Supportive mechanisms such as documentation of ethnopharmacological information, crafting of the photobook, collection of herbarium vouchers, and the data templates are very timely not just to preserve the remaining traditional knowledge and beliefs of the Aytas but also to uphold the community's rights to their healing ability and practices on health. The gathered data in this project are accessible in the Philippine Traditional Knowledge Digital Library on Health (TKDL). The Philippine TKDL on Health is the national repository of information on medicinal plants, and traditional healing practices, including rituals, plant compendium, traditional healing terminologies, and a library of traditional healers gathered from the Indigenous Cultural Communities/Indigenous Peoples (ICCs/IPs) and the local communities

Keywords: Ayta, ethnography, health, healing, indigenous people, traditional knowledge, TKDL.

Introductions

Indigenous Peoples (IPs) have been one of the favorite subjects of research through the years. Their existence and rights have been recognized (May and Aikman, 2003). (Their) The IP rights have been outlined and clarified in the United Nations Declaration on the Rights of Indigenous Peoples in 2007. As stated in Article 8, "Indigenous peoples have the collective and individual right to maintain and develop their distinct identities and characteristics, including their rights to identify themselves indigenously and to be recognized as such".



Learning about indigenous peoples and understanding their life and culture, including the use of traditional or native plants can be done through ethnography. The term ethnography has been defined by various authors and the common points are embodied in its definition as a “scientific first-hand study of people, cultures, and subjects in local settings” (Robben and Sluka, 2015).

The culture of the Aytas of Barangay Mawakat of Floridablanca and Sitio Cananaoan in Barangay San Agustin, Magalang, Pampanga are worth documenting to contribute to the existing body of knowledge and databases of these indigenous people. These communities are two of the indigenous groups of Central Luzon, Philippines. Indigenous people have their self-defined knowledge, which according to UNESCO (2017), is a knowledge system that is traditionally referred to as traditional ecological knowledge or indigenous or local knowledge. Further, traditional knowledge is the collective knowledge of traditions used by indigenous groups to sustain and adapt themselves to their environment over time (Carrie, Macky & Laird, 2016). Ayta healthcare practices are based on traditional knowledge passed down either by word of mouth or through cultural rituals.

Health is defined by the World Health Organization as “the state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity” (1948, para. 2). Knowing the concept of health among the Aytas of Mawakat and Cananaoan is of prime importance to understand how they view healthy well-being.

Maintaining healthy well-being is everyone’s task in the Ayta community whatever means, and the right to retain their healing and healthcare practices is supported by the United Nations as embodied in Article 24 of the United Nations Declaration on the Rights of Indigenous Groups (UNDRIP) to sustain and adapt themselves to their traditional medicines and health practices which are based on traditional knowledge.

There are six dimensions of health based on its updated definition according to the World Health Organization. Physical health is the ability of the human body to function properly. This includes physical fitness and activities of daily living. Social health is the ability of the community to have satisfying relationships and their interaction with social institutions and societal norms. Mental health is the ability to think, reason objectively, and act properly. Emotional health is the ability to cope, adjust, and adapt to any change in the environment that leads to self-efficacy and self-esteem. Spiritual health is feeling like one is part of a greater spectrum of existence. This includes personal beliefs and choices. The environmental dimension involves external factors (i.e., one’s surroundings, such as habitat or occupation) and internal factors (i.e., one’s internal structure, such as genetics).

With the above definitions of the dimensions of health, the interview responses and observations among the members of the Ayta community in Sitio Cananaoan, Barangay San Agustin, Magalang, Pampanga, and of those (of) from Barangay Mawakat, Floridablanca, Pampanga about their health, healthcare, and healing practices were analyzed. Hence, this study. The project aimed to document and analyze the traditional knowledge and healthcare practices of the Ayta in Sitio Cananaoan, San Agustin, Magalang, Pampanga, and Barangay Mawakat, Floridablanca, Pampanga, Philippines, and to contribute to the development of the Traditional Knowledge Digital Library on Health.

Method

This study used ethnographic-participative research where the community was involved during the data gathering and finalization of the report. The process was composed of three stages: pre-documentation, documentation, and post-documentation.

The Pre-documentation Stage

This involved the approval of the research protocol by the University of Sto. Tomas Graduate School Ethics Committee, an accredited committee of the Philippine Health Research Ethics Board (PHREB), the issuance of the Certificate of Precondition from the National Commission on Indigenous People (NCIP) Regional Office 3 in San Fernando, Pampanga, and obtaining free and prior informed consent from the community. The research team was oriented with their roles and responsibilities in the project and the community was also prepared through a series of meetings with the team to discuss their participation in the research project. This stage culminated with the signing of the Memorandum of Agreement among the research team and the community representatives. Capacity building was also conducted to capacitate the community with the research procedure.

The Documentation Stage

This documented the traditional knowledge and practices on healthcare, illness, and healing of the Aytas in the chosen communities using the participatory approach. The Research Assistants were immersed in the community for about three months but the data gathering and observation continued for about a year.

The following methods were used in the study. 1) Identification of the study area. In consultation with the office of the National Commission on Indigenous Peoples (NCIP) Region 3, the two study sites predominated by Aytas were identified to include the Barangay Mawacat, Floridanblanca, and Sitio Cananaoan, Barangay San Agustin, Magalang in the Province of Pampanga. 2) Presentation and approval of the Free and Prior Informed Consent by the participants. This was done during the launching of the project in the two project sites. 3) Interviews. Purposive sampling was chosen to identify the research partner informants because of the nature of the study. The data were gathered from the informants using a structured interview guide. The key informants were chosen using the Snowball techniques or chain referral system. The initial informants were first recommended by the Barangay head and tribal chieftain. It included those who are community elders, folk healers, herbalists (mananawas albularyo), and other knowledgeable members who are still actively practicing traditional medicine and healing. The listing continued until the 20 informants per community were completed. 4) Focus group discussion (FGD) was done among the healers, mothers, and family health care providers who validated the responses from the interview and questionnaire. The FGD included 5 to 8 participants and the proceedings were documented through audio-video and/or photo documentation with the permission of the participants. 5) Plant Sampling and Herbarium Preparation. All plants listed in the consolidated data from the informants were sampled in their surroundings and within their hunting areas - Mt. Arayat in Sitio Cananaoan Community, and Floridablanca uplands in Barangay Mawacat, Floridablanca. Plant sampling for herbarium vouchers was conducted during the walk-through with the informants. Identified plants were photographed. The herbarium vouchers were prepared and properly labeled about standard procedures. The taxonomic verification and authentication certificate was issued by the Jose Vera Herbarium, University of the Philippines-Diliman Quezon City.

The post-documentation Stage

This stage involved the data processing and analysis of the data. The data were analyzed using both qualitative and quantitative methods. Ethnography was used in the analysis of responses from the informants. The gathered data in this project such as information on medicinal plants, and traditional healing practices, including rituals, plant compendium, traditional healing terminologies, and a library of traditional healers gathered from the Ayta Communities/Indigenous Peoples (ICCs/IPs) in Barangay Mawacat, Floridablanca and Sitio Cananaoan, Magalang of the province of Pampanga were uploaded in the Philippine Traditional Knowledge Digital Library on Health (TKDL). A herbarium voucher collection and a crafted photobook of the utilized authenticated medicinal plants were also prepared and copyrighted.

Results and Discussion

The following are the findings of the study based on the community immersion, Focus group discussion, observations, interviews, walk-through in the community, assessment, and validation of data.

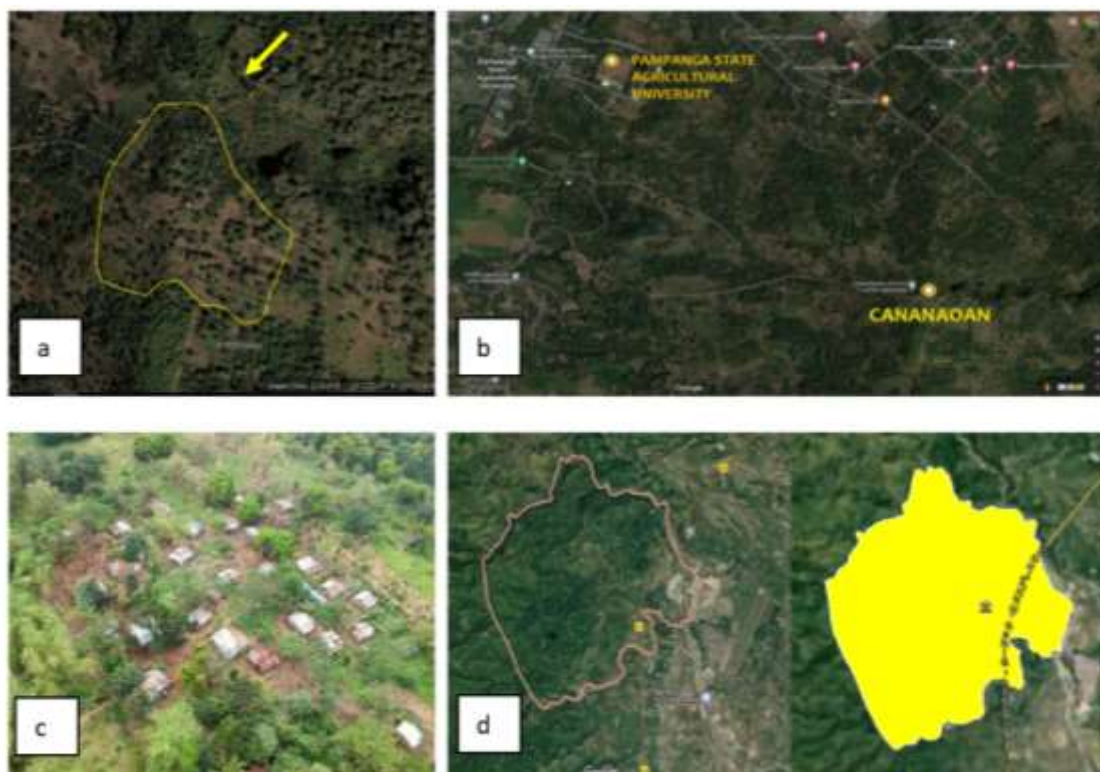
Ethnography of the Traditional Knowledge on Health and Health Care Practices of the Aytas in Sitio Cananaoan, San Agustin, Magalang, Pampanga and Barangay Mawakat, Floridablanca, Pampanga

Community Profile

Sitio Cananaoan of Barangay San Agustin, Magalang, Pampanga is a small resettlement area for the displaced Aytas of Porac during the eruption of Mt. Pinatubo in 1991 (Figs 1a, 1b, 1c) and was nestled on the foothills of majestic Mount Arayat. It has an approximate total land area of about 8000 square meters (8 hectares). Approximately 4 hectares are allocated for their dwelling area and the rest is allotted for their cropping area as their primary source of livelihood. Since it is a resettlement site, they do not have ownership of the land that they are tilling. This entails some restrictions on the use of natural resources in the area which includes the use of plants for food, construction, and herbal or alternative medicine. They have no control to restrict or regulate the use or harvest of any of the natural resources. Mt. Arayat provides a similar set of environment as that of Porac where the Ayta of Sitio Cananaoan came from. Plants and trees that are present in the mountains of Porac can be found in Mt. Arayat

Figure 1.

The Ayta Tribe site in Sitio Cananaoan, Barangay San Agustin, Magalang, Pampanga (yellow lined) (a); The Pampanga State Agricultural University site and the Cananaoan site (b);) and the Cananaoan community aerial view (c); and the Mawakat site in Barangay Mawakat, Floridablanca, Pampanga (d).



Barangay Mawakat (Fig 1d) in the Municipality of Floridablanca is an ancestral land of the Ayta people and one of the minority settlements including Nabuclod, Malabni, and Camatchiles. By tradition, the land being managed by these indigenous people has no title, however, the right to use the land for them to occupy, develop, and manage is community-based and passed through inheritance. The right of ownership as per the Republic Act of 1997 applies to them unlike in Cananaoan where they are only tenants of the land. It is approximately 12.8 km (about a 31-minute drive) from the public market of Floridablanca, 12.9 km (about 32-minute drive) from the municipal hall of Floriblanca, and 129 km away (about 2 hours and 17 minutes bus drive) in Luneta Park, Manila. Generally, going to the area is difficult and risky due to the dusty unpaved roads during summer and slippery and flooded roads during the rainy season since there are parts of the road covered with water coming from rivers/creeks. Those who cannot afford to hire a motorcycle or tricycle fare for about P200 have no other option but to travel by foot for more than an hour.

Health Perspectives

Health is viewed by the Aytas in two aspects, within the human body, and outside the body. Cleanliness cuts across the two aspects. Cleanliness is viewed as a criterion for achieving healthy well-being. Healthy well-being is being enthusiastic and happy for the Aytas. Cleanliness outside the human body refers to the environment. The two aspects give Ayta the feeling of being healthy which is important for them. One respondent claimed, "Health is wealth". Another significant response is their dependence on a higher being, whom they call "God". And from whom they seek protection and good health.

The traditional knowledge of health among the Ayta communities is viewed through six dimensions. Physical health is important since an Ayta must be physically strong to carry out daily activities. Physical fitness for the Ayta is a combination of strength, endurance, and agility. These are all needed for them to walk from one location to another and gather forest products from the pulo (mountain), carrying everything on their shoulders.

The social, emotional, and mental health of the Aytas refer to how they are related to others and how they cope with the conditions of their environment. The Aytas are adaptive and they easily adjust to something new in the environment. They can learn and speak other languages like Kapampangan and Tagalog, depending upon who they are interacting with. But they are more comfortable with Kapampangan because this is the language they use most often in expressing themselves with the lowlanders. Sometimes the Ayta looks shy and silent, and this is because he/she can hardly comprehend and communicate using other languages. But they still prefer their native language because this is the language their fellow Aytas can understand.,

Environmental health includes the external and internal factors in the environment that work hand-in-hand for the Ayta to attain healthy well-being. Their small body physique and dark body skin color enable them to adapt to their environment by camouflaging. Further, having the ability to mimic bird sounds makes them successful in hunting. They are experiential learners. learn things from their environment most of the time. Kids shape their behavior partly from the outside. They have detailed mental maps of the environment they have been to. They have a wide concept of space that makes them not stay in one particular location over some time. They easily get bored inside the four walls of the classrooms because their minds are right there in their environment. They accept the fact that they are hard up in find a job in the lowland and they have difficulty staying in one workplace. They have to keep moving and only a few can focus and stay in one job in the lowland.

On the spiritual side, Ayta's belief in God is evident in the interview responses and it is welcomed and recognized by the two communities. They ask God/Christ for protection from harm and to maintain their strength to carry out daily activities so that they can support the needs of their family. Spiritual beliefs among the members of the Ayta community today have expanded

and entertained other belief systems such as Iglesia ni Cristo, Espiritista, Methodist, and Catholic but a few maintain their traditional beliefs. The traditional ones believe in kamana (ghost or spirit), anito or kagun (spirit guardian that needs a host to help a sick or ill Ayta), and kilat (the worst form of punishment, which is to be struck by lightning which causes death among Ayta) still exist. However, the existence of different belief systems does not collide and harm the social dynamics of the Ayta in the community; they respect each other's beliefs and work harmoniously to keep a safe community.

View on Well Being

There are various ways on how the Ayta view wellbeing. Most of the responses point to the absence of disease or ailment. Another practical meaning for well-being is having a healthy and comfortable life, free from any disease to get a job and provide daily subsistence for their family. Some say that even if you do not have money as long as you are healthy, that in itself constitutes well-being. Significantly, for some respondents, their well-being can be achieved with Christ in their lives.

Disease

Any disease is a threat to the Aytas for it affects the community and their well-being. They recognize that disease is a problem and it puts them in a very difficult situation. It is a burden for them because it hinders them from doing their daily chores. It creates a feeling of fear because it may lead to death once neglected and gets worse.

The common health problems in the community are the following; cough, influenza, fever, body ache, stomach ache, rheumatism, boil (skin abscess), and tuberculosis. Children and adults are prone to diarrhea due to drinking water from the nearby stream.

Healthcare Practice: Traditional and Contemporary

Pregnancy, Child-rearing, and Healthcare Practice

Pregnant Aytas nowadays resort to clinical practices and seek regular medical professional care in nearby clinics for themselves as well as for the fetus. Some subject themselves to Ultrasound procedures to determine the sex of their child. Others also practice birth control by using injectable contraceptives.

But even though they now seek modern professional health care, they still believe in traditional knowledge during pregnancy. These practices and beliefs are summarized in Table 1. In addition, they also practice "hilot" to help a woman become fertile and bear a child. To lessen the duration of labor and to ease childbirth, the laboring mother drinks tea made from fresh "okra" (*Abelmoschus esculentus* (L) Moench). They are also familiar with abortifacient plants but they do not use them for they consider it a sin to abort a child.

When a mother gives birth, there are a few things that the person taking care of the mother should consider. In preparing food, the attendant should avoid preparing sour, fried, salty, and fatty dishes, soft drinks, and peanuts. Sour food is believed to prevent blood flow which may cause the mother's death. Vegetable-based soup and food must be served with malunggay (*Moringa oleifera* Lam) leaves. Edible snail (*susô*), and freshwater clam (*paros-paros*, *Vivipara angularis* Muller) soup is another option for the mother's food. Soup-based food enhances the breast milk production of the mother. In case the mother's breast milk is not enough for the baby (*bingut*), malunggay leaves are boiled and applied as a warm compress to the breast to increase the production of more milk. Mothers prefer breastfeeding to bottle feeding, but if it is not possible, they bottle-feed the baby with Bear Brand milk.

The baby (*bingut*) is breastfed until the third or fourth year. The *bingut* is taught to eat rice and other baby food in transition to hard food or regular food intake. The baby is weaned from

breastfeeding if there is no more breast milk. This can be done by putting a bitter taste, salt, or chili on the mother's nipple making the bingut discontinue breastfeeding.

They use a clean white cotton cloth as a diaper. They buy a commercial diaper when they have money. As the baby grows and starts to play, he/she is not allowed to play in a dirty environment. They keep and maintain cleanliness inside the house. They bathe the baby every day and keep him/her clean. If the baby is not feeling well, they bring him/her to the nearest health center for a check-up. They feed the baby with nutritious food to develop a strong body and immune system.

Common health concerns of kids are cough, flu, and stomachache. There is a case of pulmonary disease mentioned in the interview but it is not common among kids. As their children grow, they are taught to always take a bath and eat nutritious food every day so they will grow strong and healthy.

Table 1.
Customs and beliefs for pregnant Ayta women

Customs/Beliefs	
Prohibited Acts for Pregnant Women	<ol style="list-style-type: none"> 1. They should not go to a funeral wake. 2. They should not take a bath after 5 p.m. 3. They should not eat eggplant and chicken feet. 4. They should not wear a necklace. 5. They should not sit on the doorway. 6. They should not fold the clothes they will wear. 7. The husband should not place a piece of cloth on his shoulder. 8. They should not smile at a dog or a pig during the period of "paglilili" or during the first trimester of pregnancy.
Ways of preventing accidental abortion	<ol style="list-style-type: none"> 1. The pregnant woman should wrap her abdomen and/or vaginal area with leaves of "upo" (<i>Lagenaria siceraria</i> (Mol.) Standley). 2. Leaves or roots of garlic are steeped in water and drank by the pregnant woman.
Ways to determine the fetal male gender	<ol style="list-style-type: none"> 1. A pain in the right portion of the abdomen is felt. 2. The fetus always moves to the right. 3. The shape of the abdomen is slightly pointed. 4. The breasts of the pregnant woman darken on the side. 5. When a certain plant is pulled completely from the ground, the root is unbranched or straight.
Ways to determine the fetal female gender	<ol style="list-style-type: none"> 1. A pain in the left portion of the abdomen is experienced. 2. The fetus always moves to the left. 3. The shape of the abdomen is flat. 4. When a certain plant is pulled completely from the ground, the root is branching.

Teenage Years

Ayta teens (*bayuntau*) are taught to always take care of their hygiene and eat properly. Adolescence is the stage where Aytas usually get married. There are cases of early marriage in the community. However, parents still encourage their teenagers to finish their studies first before getting married. When teenagers experience body pains which are not a common health issue and do not necessarily require medical attention, they are asked to rest and eat healthful food.

When girls begin to have their menstrual period, they are not allowed to take a bath during their cycle because it is believed that they might lose their sanity. They are not allowed to participate in heavy and physical activities or eat sour food. There is no observed taboo in the experience of the menstrual cycle of the females.

In addressing dysmenorrhea, some of them boil leaves of maramarine - *Mimosa pudica* - to be drunk by the patient to ease her pain. Others use leaves of the Santa Maria/Damong Maria (*Artemisia vulgaris*) plant to be placed on the lower abdomen and a cloth is wrapped around the hip to keep the leaves in place. It is left overnight and the procedure is repeated until the pain subsides or is gone.

For boys, there are volunteer Korean medical doctors and other missionaries who conduct free circumcision in the communities. Another option is to go to a health center for free circumcision services as announced by a health center officer. Although they are now circumcised through medical procedures, some still are subjected to “batakan” or “de-pukpok”, a traditional method using a sharpened tool and a large stick. After the circumcision, the boys are then taught to disinfect and clean their genitals by using guava leaf decoction. Others use *pansi-pansi* decoction. Boys are advised to avoid eating fishy or smelly food to avoid infection.

Adulthood

Common health issues among the elderly (*mangatua*) are rheumatism, high blood pressure, cough, fever, flu, tuberculosis, body pain, difficulty in walking, arthritis, and back pain. Old Aytas (*Matua*) are encouraged to eat healthily, to always take a bath, to eat more vegetables, and to take vitamins (even though they do not usually take vitamins or food supplements)

Death or mortality is commonly due to old age. There was an isolated case of a kid who died from measles and another miscarriage. There are no serious illnesses or diseases experienced in the community. Both the men and women experienced body aches, flu, cough, fever, and abdominal pain for women. There has been no serious illness recorded in the community.

Health Seeking Behavior and Decision-Making Patterns on Use of Traditional Herbal Medicine

The health-seeking behaviors of adults and the young generation of Aytas differ because of the latter’s awareness of the use of contemporary medicine. Adults who are used to herbal medicine always prefer herbal medicine over medicine from health centers. The data on the health-seeking behavior of the Aytas of Mawakat were analyzed in three important aspects; social, cultural, and psychological.

Social Aspect

Nowadays, the influence of contemporary health services is seen through the presence of Barangay Health Workers or the BHW in the community. This is per Republic Act 7883 known as ‘The Barangay Health Worker’s Benefits and Incentives Act of 1995.’ This is an ‘act granting benefits and incentives to accredited BHWs for voluntary health services rendered to the community.’ The presence and participation of BHW’s health-related programs and activities of the local health unit posed a gradual change in the health-seeking behavior of the Aytas. Active participation of the BHW in the Mawakat community, as well as the volunteers/extension workers in Cananaoan, led to the awareness of the Aytas of the health programs, such as the vaccination for infants, pre and post-natal check-ups for Ayta mothers, and other health programs for the community led by their respective local health units. There is a gradual embrace of contemporary health practices among the Aytas of Mawakat and Cananaoan, especially for the younger generation.

Cultural Aspect and Gender Role

Ayta men always do the hard work or activities that require physical strength. The mother takes care of the family in terms of health and development (of children and the family) and does house chores. The mother easily notices if a family member is ill. The immediate person to run to is the mother, or if not present at that time, the grandmother. This is because of the maternal instinct

of Ayta mothers, as well as all mothers in general. It is a common trait among women to take care of their offspring and their partners including the food they eat. To show respect for food, there is a cultural belief about food restrictions that can affect the Ayta or, worse, may cost the life of a person. They do not combine food of the same color such as chili and prawns (paraw or ulang) because this will trigger a punishment from the spirits called tanhag (being struck by lightning) leading to death. This is the reason why Aytas are not fond of spicy foods not that they do not like the food, but it is a means to avoid tanhag. Today, the younger generation of Aytas gradually do not observe this belief anymore and they eat any food they like to eat.

Psychological Aspect

The decision of the Aytas to seek medical help for the family is based on experiences and belief in God. Two kinds of thinking emerged from the responses in the interview based on the generation of the Aytas - the old adults and the young adults. Older adults experienced more of the traditional dynamics before the introduction of the contemporary healthcare system. The older adults still believe in traditional practice and find it relevant to them specifically on culture-bound syndromes such as a) nakilat or struck by lightning as a punishment; b) natsibi or is punished through an internal illness due to mixing the same color of foods or inappropriate combination of food, or making fond of insects and animals; c) nanuno or is punished through an internal illness or unusual physical illness caused by offending a nuno or spirit/forest spirit. These syndromes can only be addressed by traditional health care systems because according to older adults, the syndromes are not natural causes; some come from kagun, kamana, and/or spirits, hence, cannot be cured through contemporary medicine. The younger adults are the ones who were, later on, influenced by the contemporary health care system and have experienced its benefits. That is why it is not an absolute 'yes' or 'no' for the Aytas in terms of choosing what kind of health practice they are going to follow.

Aside from their experiences, another factor that affects their thinking of health practice is their belief in God. Some members of the Mawakat community are members of different religious sects. There are members of Iglesia ni Cristo, Espiritista, Methodist, and the Catholic church. In Cananaoan, the Aytas are mostly Born Again-Christians. But there are still traditional entities that they believe in that can either harm or guide the Aytas, like beliefs about kamana, the spirit that harms and causes illness, kagun (a spirit that needs an Ayta host in healing), pagkayabe or paglamu (a spirit guide/companion). Their view on kagun is respected at all times by the community. Some Christian Aytas trust God in helping them cure the illness especially when the condition seems to recur and they cannot find a cure for their condition.

It is reported that there is the continued use of traditional medicines among Aytas and it is perceived to be due to the accessibility, affordability, and availability of natural remedies (Elvin-Lewis, 2000). But in the practice of using herbal medicine, it is not a guarantee that it will work at all times or in all instances. If in case that herbal medicine does not work on the first try, there is a simple procedure resorted to. Figure 2 shows the decision-making chart of the Aytas.

At the onset of any ailment, the use of herbal medicine is practiced. Administration of herbal treatment can be done by anyone with experience or knowledge to cure the ailment. Mostly, the attending person is the partner of the patient, or if necessary, he/she consults others knowledgeable on the situation. The patient is observed for about two to three days. If the use of herbal medicine has shown no improvement in the patient based on observable symptoms, the next step for those in Cananaoan is to bring the patient to the nearest Health Center. For those in Mawakat, they consult the mananawas and anito. Tawas is the practice, and manawas is the person conducting the tawas. Tawas is a process of diagnosing illness with a ritual using an egg, cotton, and plate. This practice is not originally from the Ayta. It is a practice by non-indigenous groups or people and is adopted by the Ayta. In the practice of tawas, as described by the manawas, s/he places the egg in the patient's head and does the sign of the cross while uttering a

prayer and the name of the client. S/he then cracks an egg into the cup and s/he will check what causes the patient's illness or what disturbs the patient or client. After reading the egg yolk form in the water, s/he tells the client what causes the pain or illness. S/he will collect some herbal plants, tell the patient how to use the plant, and instruct the client if there are other things to be done. Usually treating clients is not a one-time treatment. Some go back to the manawas to consult some recurring illnesses if not new cases.

Choosing either of the types of healing practice depends on the kind of illness that the patient has. If the illness is not cured, then it is time for the Ayta to consult the nearest health center in the nearby barangay or hospital in town. There are times when the health-seeking behavior is in reverse. This happens to young generations of Aytas. They start with the health center or hospital because they are more aware of the effectiveness of the medicine they get from the center rather than from herbal medicine. If the medicine does not work, they consult healers like the mananawas or the manganito, of the possible cure for the illness of the patient.

Figure 2.
 Decision-making pattern of the Aytas in Mawakat and Cananaoan in treating diseases

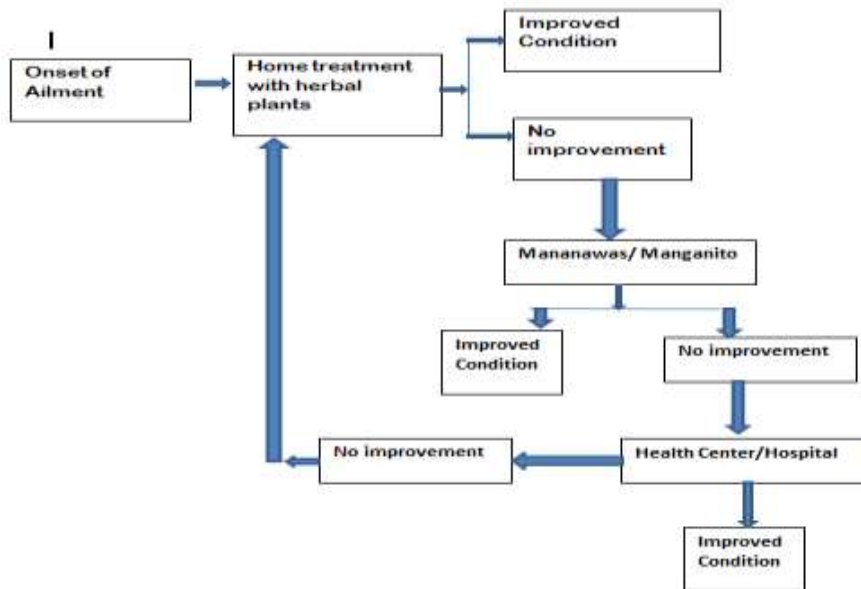


Figure 3.
 The procedures of the Ayta mananawas



- a) Mananawas massaging the lower back of the kid with skin disease. The kid had this condition when he was 4 yrs old according to his mother. Now he is 13 yrs old
- b) *Mananawas* illustrates how he feels the temporal artery for possible illness caused by *kagun* or *kamana* (spirits).
- c) The egg white floats and is read by mananawas for diagnosis
- d) Mananawas looks for herbal plants for the skin disease patient.
- e) *Maramarine roots, Dila-dilang aso*, whole plant, and *Luyang dilaw* will be boiled together and drank warm.
- f) Plant medication for the skin disease and Lagundi leaves for massaging the body of the patient

Anito or Kagun is the spirit guardian who needs an Ayta host in helping to treat an illness that the Ayta experiences. The manganito or mangagun is the host of the anito or kagun. It can be a male or a female Ayta. The anito or kagun are often passed down from the former host. But in most cases, anito and kagun are slowly diminishing in the younger generation because they believe in religion - Christianity. The manganito/mangagun uses several items in conducting the ritual. The healer uses candles and finely chopped different varieties of herbal plants together with a prayer. The healer presses the middle finger of the patient to find out what causes the illness. The manganito/mangagun then recites the prayers and incantations and gives the chopped herb to the patient. In some cases; the healer brushes the leaves on the patient's body; the healer puts the leaves on the part where the patient aches and wraps a cloth around to keep them in place. If there are instances that the illness is beyond physical, the manganito/mangagun has to perform a ritual so that the anito/kagun can enter the host while in a trance. This is like possessing the body of the host by the anito/kagun to perform and diagnose what is causing the illness in the patient. Some illnesses are caused by disrespecting nature, the spirit of a dead distant relative, and sometimes bad spirits. In such cases, anito/kagun will instruct the host on what to do to treat the illness of the patient. Most of the time, herbal plants are still used.

Transfer of Traditional Knowledge

The different practices and knowledge of the Aytas are passed verbally to younger generations or other members of the community when the situation demands it. Ayta elders transfer information or knowledge to the young Aytas through demonstration, allowing the Ayta kids to learn from their parents through observation. Some teenagers interviewed in the community expressed their sentiments and felt that they learn the hard way and experience mistakes in the process of learning.

For traditional healers, their knowledge of herbal medicines may be passed on to others, but the ability to diagnose and treat diseases through "anito" and "tawas" is only given by the spirits and not passed on to anyone the healer chooses.

Conclusions

The general result of the project revealed that there is a possible threat to the loss of traditional knowledge and practices of the Aytas in Sitio Cananaoan and Barangay Mawakat because some of these traditions have been altered or changed through time. There is now a declining interest among the younger generations of Aytas in traditional knowledge and practices in healthcare. The health-seeking behavior of the Ayta community is gradually transitioning from traditional to contemporary health practices. Such is perceived to be influenced by several factors such as exposure to modernization, technology, support from Government and Non-Government organizations, and, possible migration of educated members to the urban community. Health services have become accessible to the Aytas in Cananaoan and Mawakat through the help of their

Barangay Health Workers (BHW) and other offices and volunteers. But even though there was an observed transition from traditional to contemporary health practice, the older generations still practice the use of traditional knowledge and traditional medicinal plants for healing.

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References

- Aldovino, R.B. de Castro, P.J.L., Villenas, N., Enverga, M.S. (2010). Ethnobotanical study of the healing practices of the Aeta of Quezon Province, Philippines, UP Library, UPLB.
- Carrie, H., Mackey, T.K., & Laird, S.N. (2015). Integrating traditional indigenous medicine and western biomedicine into health systems: A review of Nicaraguas health policies and Miskitu health services. *International Journal for Equity in Health*, 14(2), 129.
- Dapar, M.L.G., and Alejandro, G.J.D. (2020). Ethnobotanical studies on indigenous communities in the Philippines: Current status, challenges, recommendations, and future perspectives. *Journal of Complementary Medicine Research*. 11(1). <http://www.doi.org.10.5455/jcmr.2020.11.01.51>
- Elvin-Lewis M. (2000). The power to influence and protect: the interconnectedness of the human bodies. *Liceo J. of Higher education Res.* 6(1), 25-36.
- Khan, I, AbdElsalam N, Fouad, A, Ullah, R, and Adnan, M. Application of Ethnobotanical indices on the use of traditional medicines against common diseases. *Evidence-based Complementary and Alternative Medicines*. Vol 2014 (2014). <http://dx.doi.org/10.1155/2014/635371>
- May S. and Aikman, S. (2003). Indigenous education: Addressing current issues and developments. *Comparative Education*, 39 (2): 139-145.
- Obico, J., and EM. Ragraio. 2014. A survey of plants used as repellents against hematophagous insects by the Ayta people of Porac, Pampanga province, Philippines, *Philippine Science Letters*, Vol. 7.No. 1.
- Ong, H.G. & Kim, Y.D. (2014). Quantitative Ethnobotanical Study of the Medicinal Plants Used by the Ati Negrito Indigenous Group in Guimaras Island, Philippines. *Journal of Ethnopharmacology*. 157, 228-242. <https://doi.org/10.1016/jep.2014.09.015>
- Robben, A.C.G.M. and Sluka, Jeffrey A. Ethnography. *International Encyclopedia of the Social and Behavioural Sciences* 2nd ed. Vol.8. <http://doi.doi.org/10.1016/B978-9-08-097086-8.12065-3>
- Tantengco, O., Condes, M. Estandilla H., & Ragraio E. 2018. Ethnobotanical survey of Medicinal Plants used by the Ayta Communities in Dinalupihan, Bataan, Philippines. *Pharmacogn.* 10(5): 859-870.
- Tindown, D. J. (2016). The economic life of the Aetas of Northern Philippines. *Khazar Journal of Humanities and Social Sciences*. 19(4): 97-109.

UNDP (2010). Indigenous people in the Philippines.

<https://w.w.w.undp.org/content/dam/philippines/docs/Governance/fastFacts6%20%20Indigenous%20People%20in%20the%20Phiilippines%20rev%201.5pdf>

UNESCO. (2017). Social practices, rituals, and festive events. Retrieved from URL <http://www.unesco.org/culture/ich/en/social-practicesrituals-and-00055>

Vega, G.A., Arguiles, N.O., Evangelista, L.T. (2020). Healthcare Practices of Yapayao-Isneg Tribe: An Ethnographic Study in Contemporary World. *IOER International Multidisciplinary Research Journal*, Vol. 2, 2:4, Dec. 2020, pp 165-174.