

ETHNOMEDICINE IN GONZAGA, CAGAYAN

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ABSTRACT

In this study, the researchers have documented plants and animals utilized as alternative medicine in Gonzaga, Cagayan. The informants were the Ilocano residents in the area. The researchers have employed structured interview in gathering the necessary data for the study. The result of the study revealed a total of 61 species of plants and eight species of animals which were documented. But, the result of the study showed that the informants use more plants than animals because of its availability. The plants and animals are used as alternative medicine to treat various diseases of the human body. It can treat and prevent problems of respiratory, integumentary, muscular, digestive, circulatory, nervous, reproductive, endocrine and urinary system. Some of the specific diseases treated are “kulebra” (shingles), spasms, fever, dysmenorrhea, toothache, baldness, diabetes, inflammation, dizziness, and cough. It can also kill cancer cells and controls blood pressure. Furthermore, leaves is the most common plant part utilized. Other plant parts like rhizomes, roots, barks, fruit, and seeds are also used. However, there are plants which all its parts are utilized. The informants used many procedures to prepare the plants and animals as alternative medicine. Boiling and decoction are the most common methods used. Other methods utilized are poultice, extraction, mincing and grinding. Moreover, some plants and animals are cooked or eaten fresh. In some instances, the informants drink the prepared alternative medicine anytime of the day. Thus, it is very evident that plants and animals as alternative medicines play a vital role in the healthcare of the Ilocanos in Gonzaga, Cagayan. Though many commercial drugs are available, the informants still utilize plants and animals as alternative medicine because it is inexpensive.

Keywords: *alternative medicine, ethnobiology, diseases, human body, plant parts, methods of preparation, animals*

INTRODUCTION

The earth is rich in biodiversity and people utilize it for survival. Plants and animals are used to solve increasing environmental and physical needs of humans specifically as alternative medicine to cure different human diseases. Nowadays, many people still use it especially those who live in remote areas who are far away from hospitals. They use it too, because of its effectiveness and availability.

Today, approximately 80% of people depend on alternative medicinal plants as a component of their primary healthcare according to the World Health Organization (WHO) traditional medicine 2016 conference. Alternative medicinal plants are getting significant attention in the world health debates (Global Herbs Conference and Natural Remedies, Chicago, 2016). The tremendous demands for plants and animals may help preserve natural environments and indigenous traditional cultures in situations in which value-based education efforts have failed. In a world that places more value on an individual's economic worth instead of intrinsic natural, or humane merit. From indigenous traditional practice to modern technology, a screening of natural based medicines from the natural environment to consumer marketplace, and how the process can promote values and ideals which remain unfulfilled by other means was conducted. It might be time to reconsider our attitudes towards

health and wholeness within a truly wholistic context that includes our environment as an extension to ourselves (Shelton,2000&Kakati et. al,2006).

Moreover, in every ancient culture with a written language, people have recorded useful knowledge about animals, plants and environments. This is particularly true of medicinal discoveries and knowledge. Some of these texts have been preserved. We have Assyrian, Egyptian, and Greek medicinal books which bear witness to extensive knowledge about how animal and plant products could be utilized (Raven, 2000).

In the past years, there is a remarkable increase in research interest and activities in the field of ethnobiology and ethnomedicine. The scientific researches in the field of ethnomedicine and ethnobiology have made important contributions in understanding the culture of a particular ethnic group in utilizing plants and animals (ethnobiology) in terms of medicinal alternatives and in fulfilling their miscellaneous activities.


Hence, this study was conducted to know and document the ethnobiological practices of the Ilocano group in Gonzaga, Cagayan in terms of treating different diseases. In addition, this study intends to find out about the ways on how the Ilocano group in Gonzaga prepares the plants and animals that they use in treating diseases. It also aims to know about the different illnesses that can be treated with these plants and animals.




METHODS

The study involved qualitative design. The informants of the study were Ilocanos in Gonzaga, Cagayan. They are either male or female adults. Most of them were married and had cultivated medicinal plants in their backyard. They were also knowledgeable about animals as alternative medicines. The researchers utilized interview guide in gathering data from the informants. The researchers designed the questions to be asked prior to the interview including the order of the questions. The questions were asked orally face to face with the informants. Photos of the plants and animals in their background were taken with their permission. The data were analyzed through thematic analysis. Thus, the researchers have arranged the data gathered based on the documented plants and animals. The themes were based on the health problems that they are addressing.

RESULTS



Table 1: Alternative Medicine for Diabetes







	<p>Local Name: Sabung Karabasa English Name: Squash blossom Scientific Name: <i>Cucurbita maxima</i></p>	<p>Plant Parts Used: Flowers/blossom Direction For Use: Eat the blossom when it is boiled.</p>
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	<p>Local name: Ampalaya English name: Bitter gourd Scientific name: <i>Momordica charantia</i></p>	<p>Plant Parts Used: Fruit and Leaves Direction For Use: Eat the boiled fruit or drink the decocted leaves anytime of the day.</p>
	<p>Local name: Niyog-niyogan English name: Rangoon Scientific name: <i>Quisqualis indica</i></p>	<p>Plant Parts Used: Seeds Direction For Use: Eat the boiled seeds anytime of the day</p>
	<p>Local name: Mangga English name: Mango Scientific name: <i>Mangifera indica</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the liquid of the decocted mango leaves anytime of the day.</p>

The table shows the different plants used in treating diabetes. The plant parts used are flower/blossom, fruit and leaves, seeds


Table 2: Alternative Medicine for Inflammation

	<p>Local Name: Turmeric English Name: Turmeric Scientific Name: <i>Curcuma long</i></p>	<p>Plant Parts Used: Rhizomes Direction For Use: Drink the water from the boiled rhizomes anytime of the day</p>
	<p>Local name: Ampalaya English name: Bitter gourd Scientific name: <i>Momordica charantia</i></p>	<p>Plant Parts Used: Fruit and Leaves Direction For Use: Eat the boiled fruit or drink the decocted leaves anytime of the day.</p>

	<p>Local name: Niyog-niyogan English name: Rangoon Scientific name: <i>Quisqualis indica</i></p>	<p>Plant Parts Used: Seeds Direction For Use: Eat the boiled seeds anytime of the day</p>
	<p>Local name: Mangga English name: Mango Scientific name: <i>Mangifera indica</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the liquid of the decocted mango leaves anytime of the day.</p>
	<p>Local name: Ampalaya English name: Bitter gourd Scientific name: <i>Momordica charantia</i></p>	<p>Plant Parts Used: Fruit and Leaves Direction For Use: Eat the boiled fruit or drink the decocted leaves anytime of the day.</p>
	<p>Local name: Niyog-niyogan English name: Rangoon Scientific name: <i>Quisqualis indica</i></p>	<p>Plant Parts Used: Seeds Direction For Use: Eat the boiled seeds anytime of the day</p>
	<p>Local name: Mangga English name: Mango Scientific name: <i>Mangifera indica</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the liquid of the decocted mango leaves anytime of the day.</p>
	<p>Local name: Papaya English name: Papaya Scientific name: <i>Carica papaya</i></p>	<p>Plant Parts Used: Fruit Direction For Use: Eat the boiled fruit or can be eaten fresh</p>


The table shows the different plants used as anti-inflammatory. The plant parts used are rhizomes and fruit.

Table 3: Alternative Medicine for “Kulebra” (Shingles)

	<p>Local Name: Kamatis English Name: Tomato Scientific Name: <i>Solanum lycopersicum</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Scrub the fresh leaves on the affected part of the skin or apply the water from the boiled leaves on the affected part.</p>
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“Kulebra” is a term used by the natives it is acute, painful inflammation of the nerve ganglia, with a skin eruption often forming a girdle around the middle of the body. It can be treated by tomato leaves.



Table 4: Alternative Medicine for Dizziness

	<p>Local Name: Atis English Name: Sugar apple Scientific Name: <i>Annona squamosa</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the water from the decocted leaves anytime of the day</p>
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The table shows the different plant used to avoid dizziness. The plant part used are leaves.




Table 5: Alternative Medicine for Preventing Cancer

	<p>Local Name: Mosquito plant English Name: Mosquito plant Scientific Name: <i>Cymbopogon citratus</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the water from the boiled leaves anytime of the day</p>
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	<p>Local name: Malunggay English name: Horseradish Scientific name: <i>Moringa oleifera</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the water from the decocted leaves anytime of the day</p>
	<p>Local name: Serpentina English name: Snakeroot Scientific name: <i>Rauwolfia serpentine</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Chew and drink the water from the boiled leaves anytime of the day</p>

All people have cancer cells. With the presence of mosquito plant, malunggay and serpentina used to prevent cancer. The plant parts used are leaves that can be boiled, chewed, and decocted cancer cells may prevent.


Table 6: Alternative medicine for Common Colds

	<p>Local Name: Lasuna English Name: Onion Scientific Name: <i>Allium cepa</i></p>	<p>Plant Parts Used: Leaves and Rhizomes Direction For Use: Drink the water from the boiled leaves anytime of the day or eat the rhizomes fresh</p>
	<p>Local Name: Gawwud/ buyo English Name: Betel leaf plant Scientific Name: <i>Piper betel</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the extracted juice anytime of the day</p>
	<p>Local Name: Laya English Name: Ginger Scientific Name: <i>Zingiber officinale</i></p>	<p>Plant Parts Used: Rhizomes Direction For Use: Drink the water from the boiled rhizomes anytime of the day</p>

	<p>Local Name: Malunggay English name: Horse radish Scientific Name: <i>Moringa oleifera</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the water from the decocted leaves anytime of the day</p>
	<p>Local Name: Lagundi English Name: Lagundi Scientific Name: <i>Vitex negundo</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the water from the boiled leaves anytime of the day</p>
	<p>Local Name: Avocado English Name: Avocado Scientific Name: <i>Persea americana</i></p>	<p>Plant Parts Used: Leaves/Bark Direction For Use: Drink the water from the boiled leaves/bark anytime of the day</p>
	<p>Local Name: Kalamansi English Name: Calamansi Scientific Name: <i>Citrofortunella microcarpa</i></p>	<p>Plant Parts Used: Fruit juice Direction For Use: Drink the extracted kalamansi fruit anytime of the day</p>
	<p>Local Name: Achitaba English Name: Achitaba Scientific Name: <i>Angelica keiskei</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the water from the boiled leaves anytime of the day</p>





The table shows the different plant used in treating a specific problem in the respiratory system called cough. The plant parts used are leaves and rhizomes.



Table 7: Alternative Medicine for Headache

	<p>Local Name: Raya-raya English Name: Rayya-rayya Scientific Name: <i>Ficus septica</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the water from the boiled leaves anytime of the day</p>
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The table shows the plant used in treating problems in the nervous system like headache. The plant part used is leaves.




Table 8: Alternative Medicine for Problems related to Excretory System





	<p>Local name: Baraniw/tanglad English name: Lemon grass Scientific name: <i>Cymbopogon citratus</i></p>	<p>Plant Parts Used: All parts Direction For Use: Drink water from the boiled leaves anytime of the day</p>
	<p>Local name: Sambong English name: Sambong Scientific name: <i>Blumea balsamifera</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the water from the boiled leaves anytime of the day</p>
	<p>Local name: Guyabano English name: Custard apple Scientific name: <i>Anona muricata</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the water from the boiled leaves anytime of the day</p>
	<p>Local name: Buko English name: Coconut Scientific name: <i>Cocos nucifera</i></p>	<p>Plant Parts Used: Water Direction For Use: Drink the water from the coconut anytime of the day</p>

	<p>Local name: Mangga English name: Mango Scientific name: <i>Mangifera indica</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the liquid from the decocted/boiled/burned leaves anytime of the day</p>
	<p>Local name: Mais English name: Corn Scientific name: <i>Zea mays</i></p>	<p>Plant Parts Used: Rhizome Direction For Use: Drink the juice from the decocted rhizomes anytime of the day</p>

The table shows the different plant used in treating problems in the urinary system which includes UTI and kidney stone. The plants used are leaves, seed, rhizomes, juice




Table 9: Alternative Medicine for Diarrhea

	<p>Local name: Tal-tallikud/sampalukan English name: Seed under the leaf Scientific name: <i>Phyllanthus niruri</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the extracted juice anytime of the day</p>
	<p>Local name: Pomelo English name: Pomelo Scientific name: <i>Citrus maxima</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the water from the boiled leaves anytime of the day</p>
	<p>Local name: Bayabas English name: Guava Scientific name: <i>Psidium guajava</i></p>	<p>Plant Parts Used: Leaves and Fruits Direction For Use: Drink the juice from decocted/poultice leaves anytime of the day and eat the fruit fresh</p>

	<p>Local name: Asuete English name: Achiote Scientific name: <i>Bixa orellana</i></p>	<p>Plant Parts Used: Leaves, Seeds Direction For Use: Crush the seeds and rub the crushed leaves and seeds on the abdominal area</p>
	<p>Local name: Avocado English name: Avocado Scientific name: <i>Persea americana</i></p>	<p>Plant Parts Used: Leaves, Bark Direction For Use: Drink the water from the boiled leaves/bark anytime of the day</p>
	<p>Local name: Lumboy/ duhat English name: Black palm Scientific name: <i>Syzygium cumini</i></p>	<p>Plant Parts Used: Bark, Leaves Direction For Use: Drink the water from the boiled leaves/bark anytime of the day</p>
	<p>Local name: Kaimito English name: Star apple Scientific name: <i>Chrysophyllum cainito</i></p>	<p>Plant Parts Used: Leaves, Bark Direction For Use: Drink the water from the boiled leaves/bark anytime of the day</p>



Diarrhea is a common condition that involves unusually frequent and liquid bowel movements. It can be healed by the above plant parts to use by following the direction

Table 10: Alternative Medicine for Menstrual Cramps

	<p>Local name: Herbaka English name: Herbaka Scientific name: <i>Artemesia vulgaris</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the water from the boiled leaves anytime of the day</p>
	<p>Local name: Sambong English name: Buffalo ear Scientific name: <i>Blumea balsamifera</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the water from the boiled leaves anytime of the day</p>
	<p>Local name: Asuete English name: Achiote Scientific name: <i>Bixa orellana</i></p>	<p>Plant Parts Used: Leaves, Seeds Direction For Use: Crush the seeds and rub the crushed leaves and seeds</p>





Menstrual Cramps is a pain in the lower abdomen as well as possibly in the lower back legs associated with menstruation. It can be healed by the above plant parts to use by following the direction

Table 11: Alternative medicine for against Low blood pressure

	<p>Local name: Talbos ng kamote English name: Camote tops Scientific name: <i>Lpomoea batatas</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the water from the decocted leaves anytime of the day</p>
	<p>Local name: Mangga English name: Mango Scientific name: <i>Mangifera indica</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the water from the decocted/boiled/burned leaves anytime of the day</p>




Low blood pressure can be remedied with camote tops and mango leaves. Drinking the juice from the decocted leaves can increase the blood pressure.

Table 12: Alternative Medicine for against High blood pressure

	<p>Local Name: Kuhol-kuhol English name: Centula Scientific name: <i>Centella asiatica</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the juice from the decocted leaves anytime of the day</p>
	<p>Local Name: Tawa English name: Snake weed Scientific name: <i>Euphorbia hirta</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the juice from the decocted leaves anytime of the day</p>
	<p>Local Name: San Vicente English name: Periumble Scientific name: <i>Catharanthus roseus</i></p>	<p>Plant Parts Used: All parts Direction For Use: Drink the water from the boiled parts anytime of the day</p>
	<p>Local name: Bawang English name: Garlic Scientific name: <i>Allium sativum</i></p>	<p>Plant Parts Used: Fruit Direction For Use: Minced the fruit and eat it fresh</p>


The table shows the different plants used in treating high blood pressure. The plant parts used are flower/blossom, and leaves. But for San Vicente, all parts of it are used.

Table 13: Alternative Medicine for treating Boil

	<p>Local name: Gumamela English name: China rose Scientific name: <i>Hibiscus rosa-sinensis</i></p>	<p>Plant Parts Used: Flower Direction For Use: Rub the minced flower on the boil</p>
	<p>Local name: Alukbati English name: Spinach Scientific name: <i>Basella rubra</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Rub the minced leaves on the boil</p>
	<p>Local Name: Malu-malu/ makahiya English Name: Sensitive plant Scientific name: <i>Mimosa pudica</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the water from the boiled leaves of from the ground dried root once a day. Do it for a minimum of 2 months and maximum of 3 months.</p>


The table shows the different plant used in treating boil. The plants used are flower/blossom, and leaves.




Table 14: Alternative Medicine for treating Ringworm

	<p>Local name: Andadasi English name: Acapulco Scientific name: <i>Cassia alata</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Pound the Acapulco leaves and squeeze the juice and apply typically on affected area twice a day until cured.</p>
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The table shows the different plant used in treating problems in the endocrine system. The plants used are leaves which can be sap/poultice that can treat for ringworm




Table 15: Alternative Medicine for treating Influenza

	<p>Local name: Sampalok English name: Tamarind Scientific name: <i>Tamarindus indica</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the boiled leaves anytime of the day</p>
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	<p>Local name: Piyas/kamias English name: Cucumber tree Scientific name: <i>Averrhoa bilimbi</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the boiled leaves anytime of the day</p>
	<p>Local Name: Saba Leaf English name: Banana Leaf Scientific name: <i>Musa acuminata</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Apply the poultice leaves at the affected area</p>
	<p>Local Name: Dalaw-bubon English name: Sweet flag Scientific name: <i>Acorus calamus</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the grinded/decocted leaves anytime of the day</p>



The high temperature as a symptom of influenza can be lowered by the leaves of the following: tamarind, cucumber tree, sweet flag and banana.


Table 16: Alternative Medicine for Body pain

	<p>Local name: Tawa-tawa English name: Snake weed Scientific name: <i>Euphorbia hirta</i></p>	<p>Plant Parts Used: All parts Direction For Use: Drink the liquid from the boiled/decocted parts of the plants anytime of the day</p>
	<p>Local name: Yerba-buena English name: Mars mint Scientific name: <i>Menthas picata</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the water from the boiled leaves anytime of the day</p>
	<p>Local Name: Tsaang gubat English name: Wild tree Scientific name: <i>Ehretia microphylla</i></p>	<p>Plant Parts Used: Leaves Direction For Use: Drink the water from the boiled anytime of the day</p>

The table shows the different plant used in treating problems in the endocrine system. The plants used are leaves which can be poultice that can soothe for body pain


Table 17: Alternative Medicine for Stomach ache

	<p>Local name: Pomelo English name: Pomelo Scientific name: <i>Citrus maxima</i></p>	<p>Parts Used: Leaves Direction For Use: Drink the water from the decocted leaves anytime of the day</p>
	<p>Local name: Don Juan Rose English name: Don Juan Rose Scientific name: <i>Rosa 'Climbing</i></p>	<p>Parts Used: Leaves Direction For Use: Exposed it to sun and mince then mixed it with oil and rub it intended for curing stomach ache</p>

	<p>Local name: Dusol English Name: Sand ginger Scientific name: <i>Kaempferia galanga</i></p>	<p>Parts Used: Leaves Direction For Use: Drink the water from the boiled leaves anytime of the day</p>
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The tables show the different plant used in treating problems in the digestive system like stomach ache. The plants used are leaves which can be boiled/ decocted.

Table 18: Alternative Medicine for Baldness

	<p>Local name: Aloe vera English name: Aloe vera Scientific name: <i>Aloe barbadensis</i></p>	<p>Parts Used: Leaves Direction For Use: Apply the extracted gel from the aloe vera on the scalp.</p>
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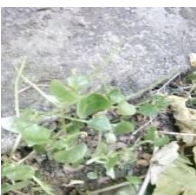
Hair growth is an important effect of applying extracted aloe vera gel, which could solve baldness.

Table 19: Alternative Medicine for treating Spasm

	<p>Local name: Pinya English name: Pineapple Scientific name: <i>Ananas comosus</i></p>	<p>Parts Used: Leaves Direction For Use: Apply the decocted leaves to the affected area</p>
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The table shows the parts the plant used in treating spasm. The plant part used is leaves which are decocted.

Table 20: Alternative Medicine for treating Rheumatism.

	<p>Local name: Pansit- pansitan English name: Peperomia Scientific name: <i>Peperomia pellucid</i></p>	<p>Parts Used: Leaves Direction For Use: Drink the decocted leaves anytime of the day</p>
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The table shows the different plant used in treating problems in the skeletal system plants. The plants used are leaves which can be decocted that can treat for rheumatism.

Table 21: Alternative Medicine for treating Bruise and fractured bone

	<p>Local name: Tuba- tuba English name: Physic Nut Scientific name: <i>Croton tiglium</i></p>	<p>Parts Used: Flower and Fruit Direction For Use: Ripe and dried and apply to the affected area</p>
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The table shows the plant used in treating problems like bruise and fractured bone. The plant parts used are flower and fruit.

Table 22: Alternative Medicine for Tooth ache

	<p>Local name: Kataka-taka English name: Life plant Scientific name: <i>Kalanchoe pinnata</i></p>	<p>Parts Used: All parts Direction For Use: Pound/ poultice the plant parts and apply to the affected area</p>
	<p>Local name: Buwa English name: Betel nut Scientific name: <i>Areca catechu</i></p>	<p>Parts Used: Fruit Direction For Use: Eat directly to prevent toothache</p>


The table shows the different plants used in treating tooth ache. The plant parts used are flower, leaves, and fruit.

Table 23: Alternative Medicine for Wounds

	<p>Local Name: Busbusilak English Name: Banana bush Scientific Name: <i>Tabernaemontana pandacaqui</i></p>	<p>Parts Used: Leaves Direction For Use: Grind the leaves and apply to the affected area</p>
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The table shows the plants used in treating open wounds. The plant part used is leaves which are grinded.

Table 24: Alternative Medicine for Snake bite

	<p>Local name: Kamantigue English name: Spotted snapweed Scientific Name: <i>Tabernaemontana pandacaqui</i></p>	<p>Parts Used: Leaves and Flower Direction For Use: Poultice the leaves and flower and apply to the affected area</p>
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The table shows the plant used in treating snake bite. The plants used are leaves and flower which can be poulticed.

Table 25: Alternative Medicine for Stronger immunity

	<p>Local Name: Alimbubuyug English Name: Bees Scientific Name: <i>Apis mellifera</i></p>	<p>Direction For Use: Get stinged with the use of bee for stronger immunity.</p>
	<p>Local Name: Kalapati English Name: Dove Scientific Name: <i>Zenaida macroura</i></p>	<p>Direction For Use: Cook the meat and Eat the meat of the dove</p>


The table below shows the animals that helps used in treating problems in the Immune system. The animal used is sting which can help for stronger immunity for a human person.

Table 26: Alternative Medicine for treating Asthma

	<p>Local Name: Pag-ung English Name: Fresh water Turtle Scientific Name: <i>Couraam boinensis</i></p>	<p>Direction For Use: Cook the meat and eat the Meat of the turtle</p>
	<p>Local Name: Aluttiit English Name: House Lizard Scientific Name: <i>Hemidactylus frenatus</i></p>	<p>Animals Parts Used: Meat Direction For Use: Cook the meat and eat the meat for those who are suffering asthma</p>


The table below shows the different animals used in treating problems in the respiratory system. The meat which can be taken for cook that can treat Asthma

Table 27: Alternative Medicine for Scabies

	<p>Local Name: Linta English Name: Leech Scientific Name: <i>Hirudo medicinalis</i></p>	<p>Direction For Use: Exposed the infected part for the leech to suck the blood and remove the rabies</p>
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The table below shows the animals used in treating problems in the Integumentary system. The animal part used is the sucking mechanism for sucking blood on the affected area of the human body.


Table 28: Alternative Medicine for Anemia

	<p>Local Name: Paniki English Name: FruitBat Scientific Name: <i>Ptenochirus jagori</i></p>	<p>Direction For Use: Cook the meat and consume by a woman who has suffering from relapse</p>
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The table shows the animal used in treating anemia.

Table 29: Alternative Medicine for treating High blood pressure

	<p>Local Name: Manuk English Name: Chicken Scientific Name: <i>Gallus-gallus domesticus</i></p>	<p>Direction For Use: Cook the meat and consume by those who are suffering from high blood pressure</p>
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	<p>Local Name: Uleg English Name: Snake Scientific Name: <i>Serpentes</i></p>	<p>Direction For Use: Drink the bile of a snake.</p>
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The table above shows the different animals for treating high blood pressure. The animal part used is its meat which is cooked.

DISCUSSION

This study documented the plants and animals used as alternative medicine in some barangays of Gonzaga, Cagayan namely: San Jose, Baua, Sta. Maria, Sta. Cruz and Amunitan. These plants and animals play an important role in the lives of the residents especially in treating illnesses. Furthermore, the Oshikoto region just like Gonzaga has a rich knowledge on alternative medicine held by traditional healers. Plants and animals are used as alternative medicines and they are documented by the researches of the said area.

The findings revealed that the residents have a great knowledge of alternative medicines with sixty-one (61) species of plants and eight (8) species of animals being documented. While Cheikhoussef, Shapi, & Matengu et.al., (2011) found out in their study that the traditional healers in Oshikoto region use 61 medicinal plant species that belong to 25 families for the treatment of various diseases and disorders with the highest number of species being used for mental diseases followed by skin infection and external injuries. Trees (28 species) were found to be the most used plants followed by herbs (15 species), shrubs (10 species) and climbers (4 species). The good thing about the place is that every barangay has its own nursery where different medicinal plants are found. There is a tag on each plant which shows the different health problems that can be cured. Most of the informants have their own medicinal plants in their backyard.

The illness that can be treated by plants and animals as alternative medicine varies. They can treat diseases of respiratory, digestive, circulatory, respiratory and urinary problems. Some specific illnesses that they can treat includes sore throat, boil, beri-beri, tooth ache, and dysmenorrhea. They can also be taken to prevent serious illnesses like cancer, diabetes, and hypertension.

There are similar studies which proved that plants are utilized as alternative medicines and are effective in treating various illnesses. Traditional healers are using plants to cure diseases related to skin problems, cold, fever, cough, headache, diarrhea, toothache, stomach ache, wounds, diabetes, rheumatism, asthma, dysentery, small pox, bone fractures, ear ache, hair loss and poison (snake, scorpion and insect bites). The medicinal plants can further be investigated by laboratory specialist or experts through determining the informant consensus factor (F_{IC}). If the F_{IC} values are high, then the specie are worth examining for bioactive compounds. Just like the high F_{IC} values obtained for trellis-vine (*Pergulariadaemia*) which was reported to treat weakness and dizziness problems, snake bite; swelling and cardiovascular problems (Muthu, Ayyanar, & Raja et.al.,2006).

Animals together with plants are also utilized as alternative medicine in the area, but plants are used more often as revealed in the study. A study conducted by Volpato, Gabriele.,Kourkova et. al., (2012), have recorded more plants than animals in their study with 55 plant species, nine animal species, and six mineral products. Similar with the study, these are used as remedies for health issues like wounds. There are also studies that focus merely on animals (Benítez, 2011; Gonzalez, Amich, Postigo , et al.,2016). The result of the study recorded reptiles, aves, and mammals as the most relevant zoological groups as alternative medicine. Though many empirical remedies can be done on a single species, the animals in this study were not used according to parts. They are cooked and eaten to treat a particular ailment. As a result of the study, the bile of the snake for example is used for treating high blood pressure. Even oil produced from it is used as medicine for skin allergies as initiated by folks of the area. These zootherapeutic resources have been and are used to treat or prevent community acquired (ca) infection, in particular digestive and reproductive ailments, together with some infectious diseases (Benítez, 2011; Gonzalez, Amich, Postigo , et al.,2016).

The different medicinal plants and animals in the place are used by the residents in the treatment of different kinds of ailments. These ailments are caused by viral and bacterial infection of the different parts of the body.

The common ways of preparing the medicine from the plants are cooking, boiling, mince, decoction, poultice, and pound, while the ways of preparing the medicine from animals are cooking and stinging. The procedures are very easy to follow and it does not require expensive tools to prepare it, it can be done by an ordinary person. Aside from the procedures being easy to be followed it is also to be safe by the folks of the said area and it serve as a common knowledge of the residence. In the study of Berlin,Ugalde, et al. (1999) they have produced a bilingual Tzeltal-Spanish basic health manual that includes many of the plants and the methods of preparation and administration relevant to their associated health conditions.

CONCLUSION

Residents of Gonzaga, Cagayan have a wide body of knowledge in terms of utilizing plants and animals as alternative medicines. Plants are more abundant in the place and are easier to prepare because some can be eaten fresh or raw as compared to animals that mostly needed to be cooked. It is practical to keep these medicinal plants and animals as much as possible because of the many illnesses that each can solve, even amidst modernization.

RECOMMENDATIONS AND IMPLICATIONS FOR FURTHER RESEARCH

The researchers recommend that the future researchers should validate the pharmacological efficacy of alternative medicinal resources including both animals and plants. It is also suggested that the future researchers should conduct the study to the neighboring municipalities of Gonzaga like Sta.Ana and StaTeresita in order to gather more knowledge in alternative medicine for the north-eastern part of Cagayan. The future researchers should compile the alternative medicine (AM) practiced by the informants for the dissemination of knowledge and record of alternative medicine that may also be published. Furthermore, the findings of this study is indeed a great help not only to the informants but to anyone who cannot afford commercially produced medicines and who rely more on alternative ways of healing.

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