ETHNOVETERINARY KNOWLEDGE, ATTITUDES, AND PRACTICES ON MEDICINAL PLANTS IN BUKIDNON PROVINCE, SOUTHERN PHILIPPINES

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Ethnoveterinary medicine is the scientific term for traditional animal health care which encompasses the knowledge, skills, methods, practices, and beliefs about animal health care established among the members of a community prior to the introduction of modern veterinary practices (Matekaire and Bwakura, 2004).
• different tribes have developed their own specific knowledge in treating sick animals.

• One of this traditional knowledge is the utilization of locally available herbal plants.
developed by farmers in the field and not in laboratories.

handed down from generations to generations.

in danger of extinction because of the advancements in modern veterinary practices.
• Locally, there is very little available information regarding the use of herbal plants as part of ethno-veterinary practice.

• Information and documentation of ethno-veterinary medicinal plants utilized by these ethnic groups can be used in further studies related in the field of medicine.
Objectives

1. To identify the socio-demographic characteristics of ethnic groups living in Bukidnon.

2. To document the knowledge, attitudes, and practices (KAP) on medicinal plants as treatment for animal diseases among ethnic groups.

3. To document the medicinal plants, parts being utilized, methods of preparation, route of administration, and its indication.
Time and Place of the Study

• The study was conducted from June 2016 to May 2017 in selected villages of Bukidnon.
Materials and Methods

Materials

• Questionnaire
• Documentation materials
Methodology

- Pretesting of Questionnaire
- One-on-One Interview
- Focus Group Discussion
- Data Gathering
- Presentation of data
One-on-one interviews using questionnaire
Tribal elders interviewed by researcher
Livestock raisers interviewed by researcher
Farmers interviewed by researchers
Field Visitation
Focus Group Discussion
Focus Group Discussion
Respondents

**ETHNIC GROUPS:** 250 respondents

Migrants:
- (8%) Boholano,
- (11.2%) Cebuano,
- (6.4%) Ilonggo,
- (8%) Ilocano,
- (6.4%) Tagalog,

Indigenous:
- (18.8%) Higaonon,
- (17.2%) Bukidnon
- (12%) Talaandig,
- (12%) Manobo.
Socio-demographic Factors

- 60% are small scale Farmers
- 46% raised animals for more than 20 years
- Majority (71.0%) are in high school level or finished High School
- Majority (92.9%) Monthly income less than $US 200.00
Ethnoveterinary Medicinal Plants

A total of 66 ethnoveterinary medicinal plants belonging to various families were named by the respondents with details on parts utilized, preparation, route of administration, indications, treatment effect, and animals treated.
Recommendation

Photos

Areca catechu Linn. (Bunga/Mamaon)
Medicinal use: Internal Parasitism

Plectranthus aromaticus Roxb. (Kalabo/Salabo)
Medicinal use: Cough and colds
Gliricidia sepium (Madre de Cacao)
Medicinal use: Wounds

Corchorus olitorius (Saluyut)
Medicinal use: Growth enhancer in pigs, Anti-inflammatory
**Leucaena leucocephala Lam. (Ipil-ipil)**

Medicinal use: Internal parasitism

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**Blumea balsamifera** (Balasulay/Gabon)

Medicinal use: Cough and colds
**Convallaria fruticosa** Linn. (Kilaa)
Medicinal use: Fever, inappetence

**Tinospora crispa** (Panyawan)
Medicinal use: Internal parasitism, External parasitism
**Curcuma longa (Dulaw/Kalawag)**
Medicinal use: Anti-inflammatory, poisoning, internal parasitism, inappetence

**Solanum melongena (Talong)**
Medicinal use: Wounds
**Peperomia pellucida (L.) Kunth**  
(Sinaw-sinaw)  
Medicinal use: GIT cleanser in chicken, Treats urinary problems in dogs and cat

**Momordica charantia** Linn. var abbreviata Ser.  
(Wild Paliya/Kabaring)  
Medicinal use: Internal parasitism, cough & colds, inflammation of gizzard in chicken
Psidium guajava (Bayabas)
Medicinal use: Wounds, Diarrhea,

Piper betel (Buyo)
Medicinal use: Wounds
**Artocarpus heterophyllus** Lam. (Nangka)
Medicinal use: Diarrhea

**Zingiber officinale** Roscoe (Luy-a)
Medicinal use: Internal parasitism, Eye problems
**Capsicum frutescens**  
Medicinal use: Foot rot, wounds

**Chrysophyllum cainito**  
Medicinal use: diarrhea, bloat, anorexia, weaness
Artemisia vulgaris
Medicinal use: fever, cough & colds, wounds

Plectranthus scutellarioides
Medicinal use/s: inflammation, cough & colds
Recommendation

*Justicia gendarussa*
Medicinal use/s: diarrhea, skin disease, fever, poisoning

*Helianthus annus*
Medicinal use/s: wounds, skin disease, diarrhea
**Byrophyllum pinnatum**  
Medicinal use/s: cough & colds, diarrhea, fever

**Chromolaena odorata**  
Medicinal use/s: diarrhea, wounds
**Cymbopogon nardus**
Medicinal use/s: foot rot, insect repellent

**Cocos nucifera**
Medicinal use/s: poisoning
**Mangifera indica**
*Medicinal use/s: diarrhea, bloat*

**Musa acuminata**
*Medicinal use/s: diarrhea, internal parasitism*
Persea americana
Medicinal use/s: diarrhea

Sandoricum koetjape
Medicinal use/s: diarrhea
**Solanum melongena**
Medicinal use/s: wounds

**Jatropha curcas**
Medicinal use/s: wounds, inflammation, acaricidal
**Mimosa pudica**
*Medicinal use/s: eye problem*

**Vitex negundo**
*Medicinal use/s: cough & colds, fever,*
ATTITUDE

Figure 1. Percentage distribution of Talaandig (n=250) by their attitudes on each statement.
Leaves and stem were the dominant parts utilized or processed.

All the tribes seek veterinary service only when Ethnoveterinary medicines are ineffective.

Sharing of knowledge to younger generation is still practiced

Utilization by grinding, pounding, and extracting of sap or juice from the leaves and stem of the plant
Leaves have been used in preparing more than other parts
Oral administration is the most common route practiced, followed by topical administration
pounding/crushing/grinding and squeezing are the most common preparation of herbal medicines
Conclusion

• Bukidnon ethnic tribes possess a wealth of ethnoveterinary knowledge and practices and a positive attitude towards ethnoveterinary medicine. These tribes have a good set of ethnoveterinary practices in animal health care that must be preserved.
Recommendation

- Extend ethno veterinary KAP survey on other tribal groups;
- Further pharmacological studies dealing with toxicity, dosage, bioassay and quality of medicinal material
- Conduct *in-vitro* and *in-vivo* tests;
- Conservation of documented herbal plants to preserve the traditional knowledge of these various ethnic groups
Thank You for listening...
THANK YOU FOR HAVING ME HERE! 😊

[Image of a group of people posing together]

[Image of the logo for Central Mindanao University]

[Image of the logo for GREASE]
THANK YOU FOR HAVING ME HERE!! 😊