

## TRADITIONAL HEALING PRACTICES USING HERBAL DOSAGE FORMS AND OTHER AGENTS BY MAGAR COMMUNITY OF GULMI DISTRICT, NEPAL

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### ABSTRACT

**Background:** The distinctive climatic and ecological conditions make Gulmi a unique existence for a large Biodiversity. For thousands of years, Magars are living in this area and they are mostly dependent on agriculture. They follow their own ancient traditional healing practices. But socio-cultural activities of the Magars community are directly and indirectly related to the plants resources. Therefore, this study mainly focuses on the survey of traditional healing practice including plant used and dhama-jhakri of Magars community of Gulmi district Nepal.

**Objective:** The main objective of the study was to explore the traditional healing practices and identify the plants used by Magar Community of Gulmi District, Nepal for their healing practices.

**Methodology:** It was descriptive cross sectional study. A survey was performed using open ended questionnaires and face to face interview with the healers of Magar community of Gulmi, district Nepal.

**Result:** Various belief of causes of diseases on traditional healers were found. They were vayu-batas, masan, bhut-pret, Grahadasha, Boksi, Pitri risako, kul deuta risako etc . Moreover the diseases were diagnosed by Observation of eye, Observation of nadi, Phukphak, Jantar-mantar, Bali, Puja, Akcheta herne etc.

Spiritual based four healing techniques and/or approaches, Phukphak, Bali, Jantar-mantar and kul bigreko, used by traditional healers. Healers were using 31 plant species belonged to 23 families for preparing different poly-herbal formulations to cure various ailments like arthritis, wound and injury, dysentery, fever, snake bite, jaundice, diabetes, hypertension , asthma, stone remover, eye infection, menstrual disorder, burn, allergy, toothache, fever, headache, pneumonia etc

**Conclusion:** All together 31 species of plants of 25 families were found to be used as traditional medicines formulation during the study. 24 different types of formulations have been observed throughout the research. Five different types of dosage forms were used. *Nelumbo nucifera* was widely used for the treatment of Jaundice than other allopathic medicine.

**Key words:** *Traditional healing, plants, Magar community, herbal formulation*

## INTRODUCTION

Magar is one of the indigenous ethnic nationalities of Nepal. Magar community is the brave community in the history of Nepal. Government of Nepal recognize the Magar community as indigenous among the 59 indigenous peoples of Nepal. Magar community is settled in the western and southern edges of Dhaulagiri Himalayan range and eastwards to the Gandaki River basin. According to 211 Census of government of Nepal, Magar is the third largest ethnic/caste groups in Nepal which reveals that there are-188,733 Magar, representing 7.1 percent of Nepal's total population.<sup>1</sup>

Traditional medicine is widely used in treatment, diagnosis, prevention, cure, and management of many health problems. Globally, traditional medicines are easily accessible, assessable, acceptable, available and affordable. People around the world prefer alternative medicine especially visit traditional healers nearby due to their easy access and affordability. It is believed that the strong foundation of traditional knowledge is the relationship between human beings and environment contribute to establish a strong foundation for the organization of indigenous knowledge. The primary objectives of this research are to assess the present situation of practices of indigenous healing knowledge and its resources in the Magar community of Gulmi district Nepal. In addition, the study has also aimed to explore the methods/ technique to manage common ailments by the traditional healers.<sup>2</sup>

Folk medicine refers<sup>3</sup> “to the society’s indigenous medical wisdom that is handed down generation to generation usually through oral tradition”. Worldwide, folk medicine practices are widespread especially on the traditional societies. Folk medicine employs principles and practices sourced from the indigenous cultural development in treating symptoms of illness. Plants are the major

form of traditional remedy in such folk medicines. A particular plant as a medicine must have been selected after countless hits and trials of treatments. The useful plant and or herbs species were treasured as healing agent where as non-beneficial plant and or herbs species must have been discarded. So the traditional healing knowledge thus acquired through ageless experience.<sup>3</sup>

Traditional healing practices in rural Nepal have emerged together with its culture and tradition. Modern health facility are still to reach in the rural area and usability to be assured by government. People still could not trust on these facility. It is the main cause that push the people to the traditional healer's door. However, modern health services are slowly replacing traditional healing practices in rural parts of Nepal.

The world health organization (WHO) defines traditional healing system as “the sum of the knowledge, skills, and practices based on the theories, belief and experiences indigenous to different culture, whether explicable or not, used in the maintenance of health as well as in the prevention, diagnosis, improvement or treatment of physical and mental health”. Nepal is very rich in tradition and use of traditional medicine. In the country, there are more than 60 traditions and about 85% of population depends upon the traditional medicines for their primary health care.<sup>4</sup>

One of the conducted research on traditional healing practice in rural area of Nepal<sup>5</sup> found out that traditional-healing practices in rural Nepal has emerged together with its culture and tradition. In the rural areas, traditional culture is still predominant and western allopathic medicine has yet to reach those areas. People of rural societies are reluctant to accept changes in their cultural practices. There are also many factors that make people choose traditional healers instead of modern hospital/health post services. However, modern health services are slowly replacing traditional healing practices in rural parts of Nepal. Raut, B. (2011) conducted research on present status of traditional health care system in Nepal and they found out that the traditional healthcare system can be classified into scholarly medical systems, folk medical system and shamanistic system.<sup>6</sup>

Simwaka, A. (2007) mentioned that in Africa there is significant traditional belief about sickness and healing. In many traditional cultures, illness is thought to be caused by psychological conflicts or disturbed social relations that create a disequilibrium expressed in the form of physical or mental problems. In Malawi, 80 % people rely on traditional healers for their medicines. This paper explained many issues

related to traditional healing in Malawi. Another crucial problem highlighted in this research is the efficacy and standardization of the traditional formulations<sup>7</sup>.

Rai, R. (2005) it has been realized in the modern world that herbal drugs strengthen the body system specifically and selectively without side effects. Traditional herbal medicine system has now gained importance in developed countries. The herbal medicinal practices adopted by traditional healers in Central India for cure of various diseases occurring in tribal pockets are presented in this paper.<sup>8</sup>

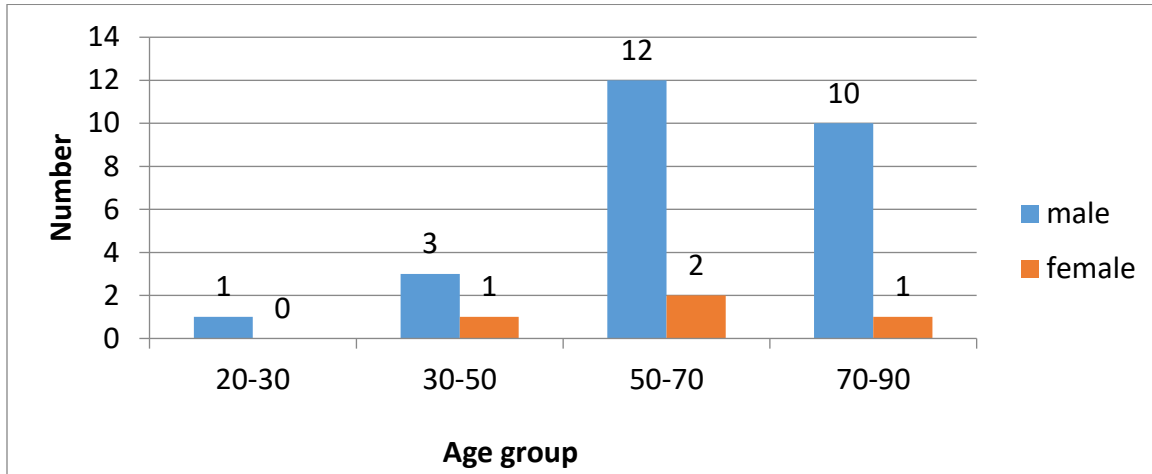
Maar, M. A. (2013) emphasized the importance of the integration of the traditional system of healing with western medicine system for the benefit of the health of the people. They concluded that mental health service was a good example for the integration of both systems.<sup>9</sup>

## MATERIALS AND METHODS

A set of questionnaires were prepared, asked (face to face interviewed) to the traditional healers, interaction with healers and direct observation in the field. The responses were recorded. The available herbs and/or plants were observed wherever possible, herbarium were prepared and identified as far as possible. It is interesting to explore and record the belief of cause of disease, diagnosis methods, used herbal resources and treatment approaches practiced by traditional healers of Magar community. The study population was traditional healers of Magars community of all age groups. In total 30 Traditional healers from Magar community, Gulmi were included in the study and the duration of study was three months.

## RESULTS

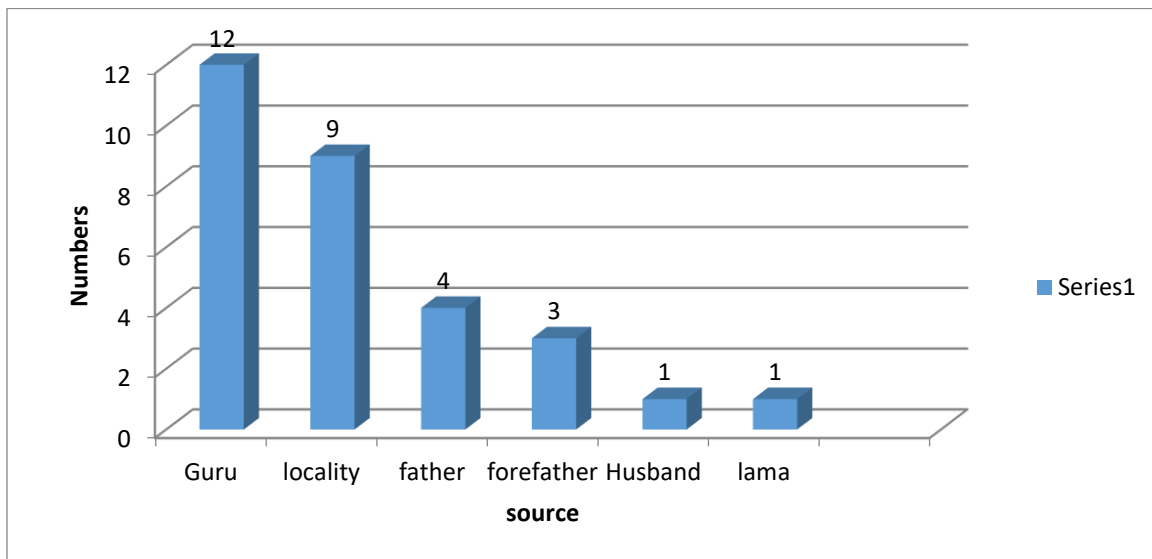
### 1) Distribution of age and sex of traditional healers Magar Community



**Figure 1: Distribution of Age Groups and Sex of traditional healers of Magar Community**

According to results maximum traditional healer were between age group 50-70 (46.67 %) and dominated by male healers (86.67 %).

## 2) Source of Traditional healing education



**Figure 2: Source of traditional healing education**

Among 30 traditional healers 12 get traditional healing education from Guru, 9 from locality, 4 from father, 3 from forefather, 1 from Husband, 1 from Lama.

## 3) Cause of disease believed by traditional healers of Magar Community

They believed that there are multiple causes of any disease. The following are the causes of diseases:

- i) Vayu-batas: Bad air carrying evil power which have adverse effects on human body.
- ii) Masan: Spread dwelling in cremation areas.
- iii) Bhut-pret: Spread such as ghosts.
- iv) Grahadasha: Problems related to and caused by stars and planets.
- v) Lagu: Unseen mobile agents affecting health.
- vi) Boksi: Witch
- vii) Pitri risako: Forefathers are angry who already pass away.
- viii) Kul deuta risako: Angry ancestral tutelary deity

#### 4. Diagnosis of Diseases by Traditional Healers of Magar community

1. Observation of eyes and tongue: for jaundice
2. Observation of Pulse (Nadi): for fever. Observation of pulse for the identification of fever
3. Akcheta herne- To observed rice grain and identify the Boksi lageko, Nagar lageko **etc.**

#### 5. Treatment Method Applied by Traditional Healer of Magar community

1. Jantarmantar – Wearing healing amulets and blowing with some mantra.
2. Phukphak Gharne – Blowing of breathe into the body.
3. .Bali – Sacrifice of animals mostly black cock or hen or black goat and Kuvindo (*Benincasa hispida*)
4. Puja – Worship of deities ie. Bayu-puja, kul-puja, Graha(planet) puja etc

**Table No 1: Items used for the treatment by traditional healers**

Items	Local name	Scientific/English name	Parts used	Uses
Plants	Chamal Mass Besar Pati Oil	<i>Oryza sativa</i> <i>Phaseolous aureus</i> <i>Curcuma longa</i> <i>Artemisia indica</i> <i>Brassica juncea</i>	Seed Seed Rhizomes Leaves Seeds	All these items were used while doing phukphak of different disease like Grahadasha,

Animals	Kukhurako pwakhh	Gallus gall domestic us	Feathers	Masan lageko ,Sato jane,Vayu and other Common diseases.
Minerals	Falam ko tukra Nun	Iron Salt	Piece of iron	

According to the figure 3, the mostly used dosage form was juice (54%) powder (20%) paste (13%) decoction (traditional tea 13%) and latex (4%).

According to above figure 4, the mostly used parts of plants were 31.70 % leaves,19.51% whole plant, 14.63% root ,7.31% fruits, 7.31% seeds+ leaves, 4.87% were Bark and Bark leaves, , 2.43% were flower leaves, rhizomes leaves , stem and roots +fruits.

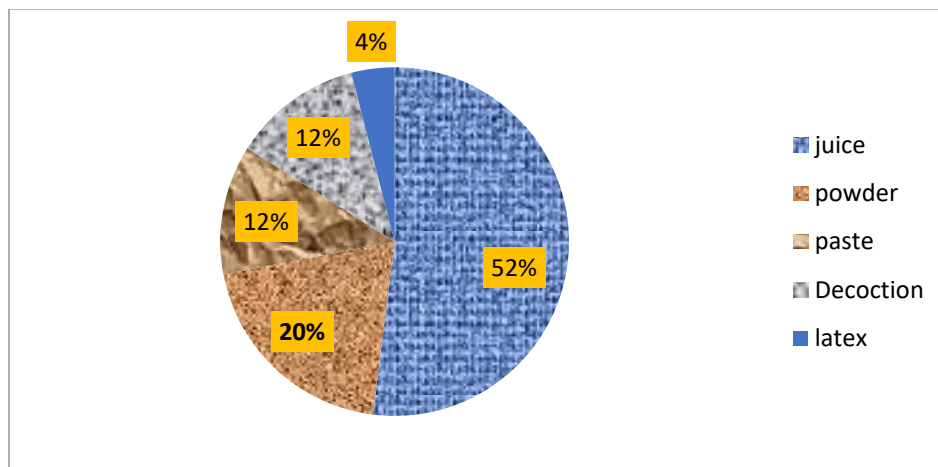


Figure 3: Distribution of Crude Drug Based on Different Dosage Forms.

#### 6. Distribution of Crude Drugs Based On Their Parts Used

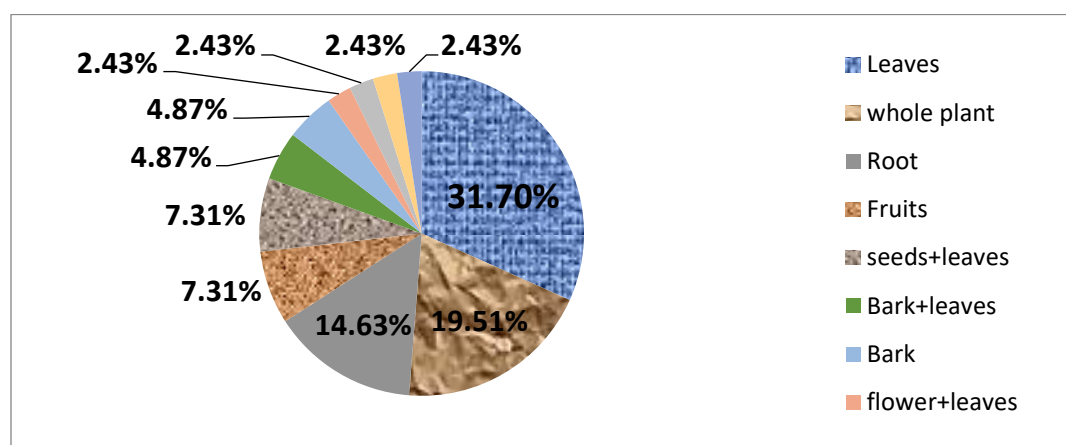


Figure 4: Distribution of Crude Drugs Based On Their Parts Used

#### 7. Treatment Procedure of traditional healers

During the discussion with traditional healers, we found the following seventeen herbal remedy used by traditional healers of Magar community.

##### 1. Headache:

Botanical source: *Ocimum sanctum* (Labiataceae), Tulsi (N), sacred basil (E), Bamari (M)



Method of preparation: Leaves of *Ocimum sanctum* was grounded and mixed with a little bit salt. It was applied locally on forehead till cure.

Dosage: It was suggested to take two times a day.

## 2. Diabetes:

Botanical source: *Eichirnia crassipes* (pontederiaceae), jaluka (N), Jaluka (M)

Method of preparation:

Part of i.e. leaves was collected and washed in clean water then it boiled with water 10-15min.

Dosage: it was suggested to drink 1-2 letter twice a day regularly till cure.

Precautions: It was not suggested to take more carbohydrate containing fruits and sugar.

## 3. High Blood Pressure

Botanical source:

(a) *Azadirachata indica* (Meliaceae), Neem (N), Neem (M)

(b) *Momordicha chrantia* (Cucurbitaceae), Tetekarela (N), African cucumber (E), Karela (M)

Method of preparation: One part of each i.e. leaves of plant (a), fruits of plant (b) and juice was extracted to get filtrate.

Dosage: One tea glass full juice was suggested to take once a day regularly.

Precaution: It was not suggested to take for pregnancy and for children.

## 4. Fever

Botanical source: *Azadirachata indica* (Meliaceae), Neem (N), Neem (M)

Method of preparation:

Certain amount of leaves of *Azadirachata indica* was crushed and boiled in necessary amount of water. It is then cooled and filtered.

Dosage: It was suggested to take twice a day.

Precaution: It was not suggested to take for patients of hypertension.

Botanical source:

(a) *Ocimum Sanctum* (labiatae): Tulsi (N), sacred basil (E), Bamari (M)

(b) *Zanthoxylum aromatum* (Rutaceae): Timur (N), Timur (M)

Method of preparation: Equal parts of each leaves of (a), fruits of (b) was boiled with water 5-10 minutes to prepare its decoction.

Dose: It was suggested to take twice to three times a day till cure.

### **5. Sore throat**

Botanical source: *Zingiber officinale* (Zingiberaceae): Adhuwa (N), Ginger (E), Chebok (M)

*Curcuma domestica* (Zingiberaceae): Besar (N), Turmeric (E), Besar (M)

Method of preparation: The rhizome of (a) was peeled and crushed into small pieces and boiled with water. Powder of rhizomes of plant (b) is added to it. Then boiled for 5-10 minutes.

Dosage: It was suggested to take two –three times a day till cure.

Precaution: It was not suggested to take for patients with gout and joint pain.

### **6. Diarrhoea**

Botanical source: *Paris polyphylla* (Liliaceae), Satuwa (N), Satuwa (M)

Method of preparation: The rhizomes was taken and dead tissue was removed. It is then crushed make the paste and required amount of water is added.

Dosage: It was suggested to take two times per days.

Precaution: it does not mix ash.

### **7. Toothache:**

Botanical Source: a) *Zanthoxylum armaturm* (Rutaceae); Timur (N), Timur (M)

b) *Eugenia Caryophyllus* (Myrtaceae); Luang (N), Luange (M)

Method of preparation: The fruits of (a) and flowering buds of (b) was grounded into powder.

Dosage: This preparation was applied to aching portion of tooth. .

Precaution: It was not suggested to use for children under 5 years of age.

### **8. Gastritis:**

Botanical Source: *Adhatoda vasica* (Acanthaceae), Asuro (N), Asura (M)

Method of Preparation: The leaves of plant was collected and wash in clean water then it is grounded to obtain juice.

Dosage: It was suggested to take 1 tea glass of juice once a day till cured.

### **9. Allergy:**

Botanical Source: *Artemisia vulgaris* (Compositae), Titepati (N), patik (M).

Method of Preparation:

The leaves and roots of *Artemisia vulgaris* was crushed. It is then squeezed to get juice.

Dosage: It was suggested to be applied locally on the affected parts till cure.

#### **10. Snake Bite:**

Botanical Source: *Paris pollyphylla* (liliaceae), satuwa (N), satuwa (M)

Method of preparation: Rhizomes of *paris pollyphylla* was taken and paste is made. The area above the bitten site is tied with cloth. Prepared paste was applied on the wound area.

Botanical source: *Azaridirachata indicum* (meliaceae), Neem (N), Neem (M)

Method of preparation: Leaves of *Azaridiachata indicum* was taken and grounded to obtain juice prepared juice is applied on wound area.

#### **11. Menstrual Disorder:**

Biological Sources: *Mamosa pudica* (leguminaceae), lajjawoti (N), Namaste jhar (M)

Method of Preparation: Leaves of *mimosa pudica* was collected and washed with clean water and it crushed to obtained juice.

Dosage: The solution was taken once a day before bedtime.

Botanical Sources: *Bergenia ciliata* (sexifragaceae), Pakhanbed (N), Pakhannbed (M).

Method of Preparation: Roots of *Bergenia ciliata* was cut in small pieces and crushed to prepare powder. Dosage: It was suggested to take one tea glass of juice twice a day till cured.

#### **13. Jaundice:**

Botanical Sources: *Cuseuta reflex* (menisperamaceae), Akashbeli (N), Namkhan jhar (M)

Method of Preparation:

Whole part of *cuseuta reflexa* was taken clean with water and cut in small piece and grounded obtain juice.

Dosage: it was suggested one tea glass of juice twice a day till cure.

Biological source: *Nelumbo nucifera* (Nelumbonaceae), kamalko ful (N)

Method of preparation;

Seeds of *Nelumbo nucifera* was taken and cut in small pieces and grounded obtain power and to mix water.

Dosage: It was suggested to drink 1--2 letter twice day until cure.

#### 14. Piles:

Botanical Sources: *Coriandrum sativum* (Umbelliferae), Dhaniya (N), Dhaniya (M)

Method of preparation: The seeds of plant *Coriandrum sativum* was soaked with water for 12 hours.

Dosage: It was suggested to drink twice a day till cure.

#### 15. Constipation:

Biological source: *Oxalis corniculata* (Leguminaceae), chariamilo (N), Biraccho ban (M)

Method of preparation: Whole parts of plants *Oxalis corniculata* was collected and washed with clean water and grounded to obtained juice.

Dosage: It was suggested 2 glass twice a day.

Botanical Source: a) *Terminalia Chebula* (Combretacea), Harro (N), Thuksing (M).

b). *Terminalia bellirica* (combretaceae): Barro (N), Barro (M).

(c) *Embilica officinalia* (Euphorbiaceae); Amala (N), Ghormet (M).

Method of preparation: The dry fruits of a, b and c was grounded to fine powder and mixed them in equal proportion. Dosage: It was suggested to take one teaspoonful powder, twice a day for 15 days

#### 16. Urinary Incontinence

Botanical source: a) *Mentha specata* (Labitaceae), pudina (N), Mint (E), Patina (M)

b) *Malvaviscus arboreus* (Malvaceae), khursaniful (N), Baharamasya sar (M)

Method of preparation: Leaves of a) and b) was collected and washed with clean water then grounded in obtained juice and mix with misri.

Dosage: It was suggested to drink 3-4 times a day untill frequent urination.

Roots of *Thysanolaceae latifolia* was taken and crushed to make a paste.

Dosage: It was applied to outer surface area of infection.

## 17. Sinusitis (Pinas)

Biological source: *Vitex nigunde* (Labiatae), Simli (N), Simuli (M)

Method of preparation: Leaves of *Vitex nigunde* was washed with clean water and grounded obtained juice.

Dosage: It was suggested to applied nose 2-3 times a day.

## DISCUSSION

Traditional healing practices in Magars community, Nepal has emerged together with its culture and tradition. In this areas traditional culture is still predominant and western allopathic medicine has yet to reach those areas. People of rural societies are reluctant to accept changes in their cultural practices. However, modern health services are slowly replacing traditional healing practices in rural parts of Nepal. The research conducted by Richa Baniya on traditional healing practice in rural area of Nepal and found similar result as that of our research.<sup>5</sup>

In our study it was revealed that a total number of 31 types of plants species from 25 families were used for preparing different poly-herbal formulations to cure 24 ailments like arthritis, sore, wound and injury, dysentery, fever, snake bite, liver problem, jaundice, diabetes, hypertension, asthma, stone, eye infection, menstrual disorder, burn, allergy, toothache, fever, headache, pneumonia in Gulmi. Whereas mentioned in Knowledge Diversity and Healing Practices of Traditional Medicine in Nepal- NHRC 2016 Traditional healers used more than 200 medicinal plants, minerals, sea, and animal products for treating more than 300 diseases in Nepal.<sup>2</sup>

According to our research a total number of 31 species of plants from 25 families were used for preparing different polyherbal formulations. Similarly in our study to the dominant family was Zingiberaceae along with Labiatae, Myrtaceae, Combretaceae. In a study of Traditional Healing Practices by Some Polyherbal Formulations of Magars Community in Badagaun Gulmi, a total number of 161 different plant species belonging to 87 families and 144 genera were documented and majority of them are herbs. In terms of plant parts use, leaf and stem/bark are in top priorities.

These plants are used to treat different ailments ranging from gastro-intestinal to headache and fever, respiratory tract related problems to dermatological problems, snake bite to ophthalmic and cuts and wounds. Easy access to modern medicines and less recognition of traditional healers are the main causes leading to decrease in interest of young generation in the use of traditional medicinal practices.<sup>6</sup> Traditional healer's knowledge on traditional practices were compared with secondary data. I was found their knowledge on the 29 plant species were similar to those in the references but the information on the 2 plants species were totally different.

In our study it was revealed that a total number of 31 plants species from 25 families were used for preparing different poly-herbal formulations to cure 24 ailments. This study was supported by Singh.AG (2018), Panthi.MP (2013), Acharya (2015), Malla. B (2014) in term of the use of crude drugs in various ailments.

Anant Gopal Singh et al<sup>12</sup> reported total 48 medicinal plants which were used to cure various human diseases like skin diseases, sinusitis, fever, toothache, eye infection, rheumatic pain, chest pain, backache, colic pain urinary problem, stomach troubles, gastric, fever, cold and cough, headache, liver disorders etc. Luitel et al<sup>13</sup> found that Tamang community of Makawanpur district were using total of 161 plant species belonging to 86 families and 144 genera to cure 89 human ailments. M.B. Rokaya et al<sup>14</sup> documented 161 plant species belonging to 61 families and 106 genera used for treating 73 human and 7 veterinary ailments. Shandesh Bhattarai, et al<sup>15</sup> recorded the traditional uses of 121 medicinal plant species, belonging to 49 vascular plant and 2 fungal families encompassing 92 genera. These 121 species are employed to treat a total of 116 ailments. Ripu M. Kunwar et al<sup>16</sup> concluded that Underutilized plant species persist because they are still useful to local people as a means of subsistence, production, and primary health care. The species provide key supplements to the main diet and are of considerable medicinal and cultural importance. Nawal Shrestha et al<sup>17</sup> identified medicinal properties of 48 species of wild plants, which is widely used in local therapeutics in the remote terrain of eastern Nepal. The plants belonged to 33 families and 40 genera and were used in the treatment of 37 human ailments.

## CONCLUSION

The present study revealed that a total number of 31 species of plants from 25 families were used for preparing different polyhedral formulations for the treatment of 24 human ailments. Similarly in our study to the dominant family was Zingiberaceae along with Labiate, Myrtaceae, and Combretaceae. The maximum traditional healers were between 50-70 age group and male gender in Magar community healers 90 % was predominant then female. Maximum traditional healers used Whole plant of *Aloe vera* for treatment of Burn, *Terminalia Chebula*, *Terminalia bellirica* and *Embilica officinalis* were widely used for treatment of constipation. Use of *Artemisia indicia* in Allergy, *Zanthoxylum armatum* in toothache and *Bouhania variegata* used in menstruation disorder did not possess any scientific evidence on related journals.

### RECOMMENDATION

There is lack of systematic record of plants used in traditional healing Practice. Traditional healing practices are edge of extinction due to modernization. Inappropriate use of traditional medicines or practices may have toxic effects. So further research is needed to ascertain the efficacy and safety of several practices and medicinal plants used by traditional medicine system. The indigenous knowledge for the treatment of ailments has been transmitting from generation to generation in the form of inherited culture. These practice have been handled down verbally and only few of the information were documented in book and in many other religious scripts. The knowledge of the healers is at the edge of extinction due to lack of proper record and socio cultural transformation.

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### **Annex: Some photo snaps of data collection**



**Heller explaining about herbs**



**A healer filling Consent Form**



**Healer showing *pyrus pashia* fruits**



**Taking interview with a healer**



**A Traditional healer's couple**



**Magar Dhami|Enchanting mantra**



*Cuscuta reflexa*



*Bergenia ciliate*



*Aconitum ferox*