

Indigenous Knowledge On Medicinal Plants Practiced At Myagdi District, Nepal

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Research Article

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Abstract

Indigenous knowledge on medicinal plants and practices is outdistancing and vulnerable to loss if not properly documented. A survey on medicinal plants and their practices was carried in the Myagdi district. Around 40 tribal people from four different villages were interviewed using a semi-structured questionnaire. Documentation of the indigenous knowledge was done in written form and the pictures of available medicinal plants were taken. The study showed that 93.51% of the respondent has used medicinal plants and 87.20% found them effective in curing several diseases and injuries. They are commonly used to cure diseases like bone fractures, abdominal pain, fever, common cold, dysentery, eye opacity, scabies, worm infection, reproductive problems, mental disorder, and cardiovascular problems. As reported, with access to modern pharmaceuticals, the use of medicinal plants has been less practiced these days. The knowledge on medicinal plants and practices are restricted to older-aged groups of the community (76.32%) reflecting that valuable indigenous knowledge is on the wane. This study portrays the commonly used medicinal plants along with their preparation techniques practiced in the study area.

1. Introduction

Medicinal plants have been used from time immemorial to cure human diseases and injuries. They are rich in secondary metabolites and are the principal sources of raw drugs [1,2]. Over three-quarters of the world, population relies mainly on plants and plant extracts for health care [3]. Medicinal plants are used in the diagnosis, prevention, and elimination of physical and mental imbalance [4]. Of the 10091 species of higher plants found in Nepal, 700 species are believed to have medicinal values and only 238 species are medically tested and documented [5,6]. Not only herbal medicines but also the animal parts and/or minerals and non-medication therapies are used in traditional medicine [7]. Ayurveda, Naturopathy, Homeopathy, Unani, Amchi, Acupuncture are the major traditional system of medicine in Nepal [8]. Similarly, medicinal plants are traditionally used by several ethnic groups and communities under the guidance of Kavirajs, Vaidyas, Dhamis, Jhakris, Healers, and Lammas [9,10]. Over 100 Medicinal plants are being exported to other countries from Nepal and 70% of rural populations still rely on medicinal herbs for treatment [11]. Besides therapeutic uses, they also have nutritional, religious, cultural, and socio-economic importance [12].

Panchaule, Jatamasi, Bojho, Sarpagandha, Dhasingre, Rudrakshya, Dhairo, Harro, Barro, Yarshagumba, Ghodtapre, Chutro, Gunras, Silajit, Asuro, Mint, Tulsi, Dhatura, etc. are commonly used medicinal plants in Nepal. Still, several underexposed medicinal plants and healing practices are being used by traditional communities, residing at rural parts of Nepal. The collection and commercialization of herbal plants have been an important economic source of many of the rural population of Nepal [13]. However, many of the indigenously available medicinal plants are not properly utilized and their valuable genetic resources are vulnerable to extinction [14]. In addition to this, very little is known about the use pattern, ecology, cultivation, and conservation status of medicinal plants in Nepal [15].

The Himalayan region has a high diversity of medicinal herbs. Myagdi, Himalayan district of Nepal that extends from 28° 20' - 28° 87'N and 83° 08' - 83° 53'E, covering the area of 225,706 ha and ranging from 752 to 8,167 masl is well known for extensive use of medicinal plants to cure diseases and injuries [16,17]. This knowledge and practical experiences are handed from generation to generation. However, with the introduction of modern pharmaceuticals, this indigenous knowledge is overshadowed and on the verge of loss if not properly documented [18,19]. This study aims to address indigenous knowledge on medicinal plants practiced at Myagdi district, Nepal.

2. Objectives

2.1 General objective

- To know the indigenous knowledge on medicinal plants and practices

2.2 Specific objectives

- To assess the different plants and their parts used as medicinal values
- To know about the preparation technique of medicinal plants and disease treated

3. Methodology

The research was carried out in the rural community of Beni Municipality, Myagdi. The district extends from 28° 20' - 28° 87'N and 83° 08' - 83° 53'E and covers the area of 225,706 ha ranging from 752 to 8,167 masl [16]. Reconnaissance of the study site was done to gather preliminary information on socio-demographic settings of the study site, key informants on indigenous knowledge, and adopters of medicinal plants. Four villages of Beni Municipality of which 40 respondents including key informants having indigenous knowledge on medicinal plants were purposively selected and interviewed with a pre-tested, semi-structured questionnaire. Primary data were collected through field survey, Focus Group Discussion (FGD), and secondary information were obtained through reviewing different publications of Ministry of Agriculture and Livestock Development (MoALD), Central bureau of Statistics (CBS), Nepal Agricultural Research Council (NARC), Agro-Enterprise Centre (AEC), Agriculture Knowledge Center (AKC) Myagdi, research articles, etc. Data entry and analysis were done using MS-excel and SPSS software. Documentation of indigenous knowledge was carried in written, pictorial as well as visual form.

4. Results And Discussion

4.1 About the socio-economic characteristics of the community

The rural community of Jamruk, Surkemela, Baskuna, and Thamdada village of Beni Municipality, Myagdi district has long been practicing use of medicinal plants to cure diseases and injuries. From the study, it was found that 70% of the respondents were male and 30% of the respondents were female. The community was dominated by Janajati ethnic composition (57.5%) followed by Chettri (25.3%), Brahmin

(14.7%), and Dalit (2.5%). The study showed that 25% of the respondents were illiterate while 75% of the respondents had obtained formal education. 77.5% of the respondent had agriculture as the primary source of income while the rest of the respondents were involved in either business or service. The use of medicinal plants to cure disease and injuries was practiced from traditional time and this indigenous knowledge was handed over the generations. The study revealed that 93.5% of the respondents had used medicinal plants and 87.2% found them effective in curing diseases and injuries. However, with the introduction of modern pharmaceuticals, this knowledge is practiced occasionally by some old-aged people of the community. 76.3% of the key informants were under older-aged group (>60 years of age) while the rest were below 60 years of age. Nevertheless, the practice has benefited several people of the community and is positively perceived by them. Interestingly, the knowledge is said to have been associated with religious belief and supernatural powers.

4.2 Details of the Indigenous knowledge/practice

Commonly used medicinal plants along with their preparation method and disease treated are described below.

4.3 Utility of the indigenous knowledge

Indigenous knowledge on medicinal plants and practices has greater importance on curing human diseases and injuries. Knowledge on medicinal plants is applied to treat several animal diseases too. Medicinal plants promote sustainable human health, biological as well as cultural diversities. In addition to curing diseases, they have nutritional and health benefits. Cultivation of medicinal plants not only has economic benefits, but also promotes green recovery.

5. Conclusion

The rural community of Myagdi district has profuse traditional knowledge on medicinal plants. Indigenous knowledge on medicinal plants and practices are held mostly by older-aged groups of the community. Either whole plant or part of the plant like leaf, fruit, bark, root of several plants such as Sikari laro, Mula pate, Gurjo, Ghodtapre, Gane jhar, Bhakimlo, Asuro, Satuwa, Tulsi, Chari amilo, Siltimur, Abijalo, Neem, Sisno, etc are used as medicinal values. In addition to herbal plants, animal parts, minerals are also used in curing diseases. Simple and traditional techniques are used to prepare medicines that are essentially used to cure diseases like headache, fever, common cold, asthma, abdominal pain, depression, typhoid, worm infections, heart problems, and injuries like bone fractures, muscular dislocation, cut wounds, etc. However, this knowledge is less being passed over the generations these days. We are gradually losing valuable indigenous knowledge so, proper documentation and exploration of this knowledge are crucial. Promotion of rural people in conservation, cultivation, management, and commercialization of medicinal plants not only preserves the indigenous knowledge but also uplifts their socio-economic status.

List Of Acronyms And Abbreviations

AEC	: Agro-enterprise Center
AKC	: Agriculture Knowledge center
CBS	: Central Bureau of Statistics
FGD	: Focus Group Discussion
MoALD	: Ministry of Agriculture and Livestock Development
MS	: Microsoft
masl	: Meter above sea level
NARC	: Nepal Agriculture Research Council
SPSS	: Statistical Package for Social Sciences

Declarations

Availability of data and material

The datasets and materials used and analysed during the current study are available from the corresponding author on reasonable request.

Competing interests

There is no any conflicting interest regarding the manuscript from the author.

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Authors' contribution

The conceptualization/design of work, execution (research) and manuscript writing has been solely carried out by the author.

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Authors' information

Not applicable.

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Table

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