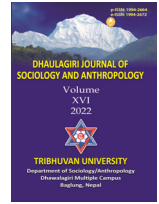


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# Whose Knowledge Counts?

## A Reflection on the Field Narratives of Indigenous Health Knowledge and Practices

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## Abstract

Today's world is increasingly recognizing the value of indigenous knowledge and expressing concern over its erosion. The protection of indigenous knowledge has been a global policy priority. This paper draws from a qualitative study conducted in a village setting in South-West Nepal and aims to reflect on the local narratives of the erosion of indigenous health knowledge and practices (IHKPs). Data were collected from healers, patients, and key informants using interview and observation methods and analyzed thematically. The findings are organized in five broad themes: (i) The context of socio-economic change, (ii) Existing health knowledge and practices, (iii) A decline in herbal literacy and home remedy, (iv) Market influence, increased healthcare options, and the shrinking role of traditional healers, and (v) Value perceptions of indigenous knowledge. Though IHKPs remain an inseparable part of community life, the field narratives strongly indicate a decline in home and community-based health practices and an intergenerational loss of herbal knowledge. Taking insight from the critical medical anthropological perspective, this paper discusses the micro-experience and macro-influence and argues for recognizing the health knowledge of indigenous communities. The recognition of knowledge should be a political and policy decision in protecting and promoting IHKPs.

*Keywords:* erosion of knowledge, health practices, Nepal, protection of indigenous knowledge, traditional healers

## Introduction

Indigenous knowledge is “the knowledge used by local people to make a living in a particular environment” (Gumbo, 2021, p. 490). Often referred to as “traditional knowledge”, “folk knowledge”, “local knowledge” or “ethnoscience” indigenous knowledge is the homegrown and “local knowledge – knowledge that is unique to a given culture or society” (Warren, 1991, p. 1). For a long time, indigenous knowledge was considered primitive, useless, worthless, inferior and irrelevant, which led to the erosion of indigenous knowledge (Agrawal, 1995; Bodeker, 2010; Nesterova, 2020). Today's world is revaluing and (re)establishing the relevance of indigenous knowledge (Mistry, 2009). Indigenous knowledge is particularly

relevant for agriculture and animal husbandry, health and medicine, nature conservation and resource management, climate change mitigation and disaster risk reduction, sustainable development, and poverty alleviation (Gumbo, 2021).

On the one hand, there is a growing concern over the intergenerational erosion of indigenous knowledge (Álvaro Fernández-Llamazares et al., 2021; Aswani et al., 2018; Kodirekkala, 2017; Hedges et al., 2020), on the other, there is a dominant mindset to discount or ignore its value (Emeagwali & Dei, 2014; Sahai, 2013). This mindset often characterizes IHKPs as the residue of the past, irrational and unscientific knowledge and practices (Janska, 2008) or, at best, considers IHKPs as ‘cultural things’ or ‘subjective beliefs’ and not as valid forms of



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knowledge (Sujatha, 2007, p. 169). However, indigenous health knowledge forms part of global health knowledge (Lwanga, 2021) and has become an interdisciplinary subject of interest. Indigenous health knowledge serves the health need of the local and indigenous people whom the official health system serves poorly (Lwanga, 2021).

Indigenous health knowledge refers to a given indigenous community's health knowledge and practices. Indigenous health knowledge is cultural ecosystem-specific, collective, holistic, innovative, adaptive, and dynamic (Lwanga, 2009). Janska (2008, p. 611) defines traditional health knowledge as “a dynamic system of distinctive knowledge of health maintenance in indigenous communities developed over centuries through empirical observation, spiritual insight, and traditional teaching. It is used by the majority of the world’s indigenous population for its affordability, accessibility, cultural beliefs, and treatment efficacy. Indigenous people have a holistic view of health that considers physical, mental, spiritual, social, and ecological dimensions”.

The UN Declaration on the Rights of Indigenous Peoples recognizes the importance of indigenous knowledge and indigenous people’s right to their traditional medicines and to maintain their health practices, including the conservation of their vital medicinal plants, animals and minerals.”(UN General Assembly, 2007). Now, the idea of health sovereignty is being increasingly recognized which includes “the ability to choose medicines that are socioculturally and ecologically appropriate; thereby, providing practical, reliable and contextually relevant health care options” (Kassam et al., 2010, p. 817). Similarly, the Indigenous and Tribal Peoples Convention, 1989 (No.169) states that people’s traditional preventive care, healing practices and medicine shall be considered while planning and administering health services. Nepal’s state policy, as enshrined in the Constitution, is to “protect and promote traditional knowledge, skill, culture, social tradition and experience of the indigenous nationalities and local communities” (GoN, 2015).

Indigenous health knowledge contributes to the health and well-being of the indigenous population, the plant-based medicinal knowledge of codified traditional medicine systems, the sustainable use of medicinal plant resources, and the empowerment of indigenous people (Subedi, 2021; Subedi & Joshi, 2018). Indigenous traditional healers have an essential role to play in the protection and promotion of IHKPs. However, they lack a legitimate space in the national health system. The health policies often highlight the importance of medicinal herbs and the need to protect and conserve them but do not envision a potential role the healers can play in the conservation efforts. This paper reflects on the field narratives of the erosion of IHKPs and argues for the meaningful role of indigenous traditional healers in promoting and protecting IHKPs.

Indigenous communities in Nepal primarily rely on

indigenous traditional healers<sup>1</sup> such as spiritual healers, herbal healers, bonesetters, traditional midwives, and folk massagers for many of their health care needs (Subedi, 2019; Subedi, 2003; Tamang & Broom, 2011). Indigenous people prefer indigenous traditional healers over medical practitioners in many illness conditions (Justice, 1986; Subedi, 1989). Though these healers are not trained in medical institutions, they deal with physical and psychosocial health problems at the community level and are experienced, hold the knowledge and know-how of medicinal plants and therapeutic skills, and are recognized as knowledgeable persons by the local communities. After self-care and home remedies, they are consulted first before resorting to the official healthcare facilities, and finally, when modern medicine fails to bring about any improvements (Subedi, 1992). They have been contributing to physical health and psychosocial, emotional, spiritual, and cultural well-being. They are the most popular traditional medicine practitioners in Nepal, and their number far exceeds the number of medically qualified practitioners. A vast body of literature exists to show the importance and potential of the medicinal herbs that indigenous communities have been using for medicinal/therapeutic purposes. With the help of indigenous healers, bioprospectors can significantly increase the success ratio in trials, and many valuable medicinal products used today would not have existed without the input of indigenous knowledge (Prakash, 2000, p. 1).

The indigenous traditional healers actively continue their practices as a family tradition and culture. They possess the knowledge of medicinal plants and the skills to use them to treat ailments. They have a better understanding of their nature and culture because their knowledge is rooted in local culture and is based on experiential learning. There has been a renewed/emerging interest in IHKPs. People across the world are looking back to nature and to an alternative solution to their

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1. WHO global report on traditional and complementary medicine 2019, recognizes indigenous traditional healers as indigenous traditional medicine providers to refer “to those who practice indigenous traditional medicine, such as traditional healers, bonesetters, herbalists and traditional birth attendants. Usually, most of these practitioners have been practicing at the primary health care level” (WHO, 2019, p. 48). In this paper, I have used indigenous traditional healers for a wide variety of traditional healers known as *Dhami*, *Jhankri*, *Jharphuke*, *Fukfake*, *Janne Manchhe*, *Pandit*, *Jyotish*, *Sudeni*, *Mata*, *Vaidya*, *Amchi*, *Gurau/Guruwa* (Tharu), *Ojha* (Mushahar), *Koju* (Gurung), *Guvaju*, *Dyoma/Dyobhaju* (Newar), *Lama*, *Bombo* (Tamang), *Bunthing* (Lepcha), *Arma/rama* (Kham Magar), *Hakim*, *Maulvi/ Mulla*, *Phombo* (Jirel), *Phedangma*, *Shamba* and *Yeba-Yema* (Rai, Limbu), *Pande/Pha* (Chepang), other herbal healers, traditional midwives and massagers. By and large, these healers are not officially trained, certified or licensed to practice but they are traditionally trained or experienced and practicing indigenous traditional health knowledge in their respective communities.

health problems. They are tired of the iatrogenic effects of modern drugs, drug resistance, invasive procedures, and expensive biomedical solutions. The indigenous health knowledge has become a subject of multidisciplinary interest, and disciplines such as anthropology, ethnobotany and ethnopharmacology have shown the importance and potential of IHKPs. Studies have shown that the medicinal plants that the indigenous communities have been using have medicinal properties (active compounds) and hold the potential for modern drug discovery (Kunwar et al., 2010, 2013). It indicates the potential of IHKPs to serve humanity, but the value of indigenous health knowledge has not been recognized well in developing countries like Nepal. The local communities cannot remain uninfluenced by the dominant tendency which discounts and devalues indigenous knowledge. In this context, the paper attempts to reflect on the field narratives.

### Methods

The study area is located approximately eight kilometers from Ghorahi, the district capital and the nearest city to the study area. A dozen caste/ethnic communities live in the area, but Tharu alone constitute more than half of the total population. Tharus are the second largest indigenous nationality of Nepal. Indigenous Nationalities, known as *Adivasi Janajati*, make up more than one-third of the country's total population of 26.5 million. The government of Nepal has officially recognized 59 indigenous communities (National Foundation for Upliftment of *Aadibasi/Janjati Act*, 2002).

The paper largely draws from my MPhil's research on the indigenous healing practices among the Tharus. The study was conducted in a village development committee of the Dang district of South-West Nepal in 2012. Field data were collected from 18 healers, selected purposively out of 101 healers identified in the area and were approached doing home visits, and 27 patients, who were contacted while they were consulting healers, using a semi-structured interview schedule. Besides, nine key informants were interviewed, such as a social worker, a local leader, a school teacher, a female community health volunteer, and a health post staff. Three group interactions were conducted with school teachers, women health volunteers, and cooperative members. Additional information was collected by observing the healing sessions. Verbal consent was sought from both healers and patients for an interview and to observe the healing sessions. Written consent was sought to record the audio and to take photographs. The interview was conducted at their convenient time and venue. The names and addresses of the study participants were hidden to maintain confidentiality. The interview was conducted in the Nepali language and participants were explained in the Tharu language whenever needed. The methodology of the study has been explained elsewhere (Subedi, 2019). This paper also draws some of the field

data from my doctoral research which was conducted in one of the villages of the same study area in 2016. The field narratives were transcribed, translated, and analyzed thematically. Findings were substantiated, drawing insight from the critical medical anthropology (CMA) perspective to look at the micro-level experience concerning the macro-level socio-economic and political issues. CMA is a theoretical perspective that emphasizes micro-macro linkages and places power and politics on the top. This perspective helps us understand how local perceptions, health practices and health behavior are influenced and shaped by external forces (Singer & Baer, 1995). This perspective "understands the linkages of local issues in light of the larger political and economic forces that pattern human relationships, shape social behavior, and condition collective experience, including forces of institutional, national, and global scale" (Singer, 1986, p. 128). The findings were presented using the study participants' voices and verbatims and substantiated discussion in light of the published literature and policy documents. The narratives presented in this paper are the words of the participants and are open to the readers for their own interpretation.

### Findings

Reflecting upon the field narratives on the erosion of IHKPs, the following five themes were generated: (i) The context of socio-economic change, (ii) Existing health knowledge and practices, (iii) A decline in herbal literacy and home remedy (iv) Market influence, increased healthcare options, and the shrinking role of traditional healers, and (v) Value perceptions of indigenous knowledge. Each of these themes is discussed below.

#### The Context of Socio-Economic Change

Agriculture is the main occupation of the Tharus and other co-inhabiting communities in the area under study. Most people in the village are engaged in agriculture along with animal husbandry. They also collect wild fruits, vegetables and medicinal plants from the forest, even though the collection of forest products, including medicinal herbs, has been declining over the last few decades. Nowadays, they are allowed to enter the forest only when the Forest User Committee makes the forest open (*ban kholchha*) for user groups only on certain occasions. Many young people go abroad, especially to Malaysia and Gulf countries, for contractual jobs or work as seasonal agricultural laborers, construction workers and manual laborers. The study area is fast urbanizing and has been included as a ward of Ghorahi sub-metropolitan city in the recent restructuring of local government. The farming system has been changed with modern seeds, chemical fertilizers, insecticides/pesticides, and modern technologies of tilling/plowing, irrigation, planting and harvesting. They are doing away with traditional dhiki janto by installing a rice mill to grind and remove the husks from grains. They are increasingly

watching television and using smartphones and the internet. The number of households that use biogas, LPG gas and electricity as cooking fuels instead of firewood and dung cakes is fast increasing. Traditional seeds and way of agricultural methods are being displaced. The social ties and traditional cultural values have been weakened. Most of the villagers express that the village was not what it used to be a few decades ago. They express that life has become easier but not healthier with these changes. They have a concern about the increased use of chemical fertilizers and insecticides.

The current socio-economic change has driven many youths far away from home. In most households, at least one or two persons were found away from home in search of a job or education. The young generation is interested in doing other than their traditional occupations. Unlike in the earlier times, when young family members used to live in the (joint) family and learn from their parents and grandparents, today they are missing an opportunity to learn from their elderly family members.

### Existing Health Knowledge and Practices

All the people have some knowledge about the local medicinal plants and the medicinal value of vegetables, fruits and spices. At least an elderly person in the family knows the local medicinal plants of day-to-day use and the methods to use them as medicine. Home-based health knowledge and practices address many day-to-day health problems. Home remedies serve as the first source of care and an option for those who are choiceless. Many illness episodes are managed at home with home-based health knowledge. Home-based health practices include various activities related to health promotion, health maintenance, and treatment of illness and injuries and home-based care to chronically ill persons. At the household level, they include or avoid certain food items, use a variety of plants, vegetables and spices as medicine, do family massage or apply ointment for pain relief, manage bruises, small cuts or wounds, worship and offer clan deity *dhaja-dhup*, and organize religious/ritualistic events such as *Lausari*, (a ritual organized among the Tharus for the children so that they do not get sick and stay healthy), or organize *puja* (such as *badkapuja* among the Tharus, which are deemed to be helpful in the recovery of the sick person). The home-based practices are culture-specific and are based on prior knowledge and experience. The family members learn many such knowledge and practices in the home as family traditions and culture. The recent addition to the traditional home-based practices is self-medication or using over-the-counter medicine, diet and nutrition, yoga, and exercise.

When home-based care fails, people resort to local healers such as *guruwa* (spiritual healer), *baidawa* (herbal healer), *surenya* (traditional birth attendant) and massagers found among the Tharu community and *dhami-jhankri* (spiritual healer), *jharpheke* (faith healers), *vaidya* (herbal healer), *sudeni* (traditional birth attendant) found among

co-inhabiting non-Tharu communities. Sometimes they visit distant healers, skipping the nearby hospitals, for particular health problems such as jaundice, joint pains, navel dislocation (*putreno sareko*), joint dislocation (*markeko*) and fractures. The indigenous traditional healers are consulted not only because they hold indigenous health knowledge and can treat many illnesses but also because they are far more accessible, geographically and financially, and share the same worldviews with the patients. In many instances, people want to show them first before resorting to the hospitals located in faraway cities. It saves them scarce resources, time and money. The healers are consulted not only before going to the hospitals but also during the treatment process and even after returning from hospitals when they experience treatment failures. Indigenous healing is considered effective in the treatment of many illness conditions. However, now it is like a fashion to buy over-the-counter medicine, visit hospitals and consult medical practitioners, skipping the traditional healers, even for minor illnesses and injuries, even though some of the participants expressed their faith in the traditional healings and preferences for herbal medicine because they consider herbal medicine safe, harmless, and have no or fewer side effects.

### A Decline in Herbal Literacy and Home Remedy

Herbal literacy is health literacy. However, the young generation lacks the herbal literacy that older people used to have. Young people who do not know many plants and their usage for everyday use is increasing. The knowledge about medicinal plants is low among the young as they can not recognize the plants and explain the methods to use them as medicine. Most participants expressed that home-based herbal knowledge and practices are declining. In earlier times, people used to treat minor illnesses and injuries at home, utilizing the medicinal herbs available around them. They used to buy different herbs from the vendor herbalists from the Himalayan region and use them for home remedies when needed. Now they prefer to buy medicine over-the-counter for self-medication. An elderly participant said, "It has become a fashion to buy tablets and syrups from medical stores even for minor illnesses such as cough and cold (*rugha-khoki*)."

Another elderly participant expressed his disappointment with the weak herbal literacy of his son: "My son cannot distinguish between *Tulasi* (Holy basil, *Ocimum tenuiflorum*) and *Bawari* (*Mentha spicata*), *Neem* (*Azadirachta indica*) and *Bakain* (*Melia Azedarach*), and *Titepati* (*Mug-wort*, *Artemisia vulgaris*) and *Tite-jhar* (common ragweed). These plants are not similar, even though they look similar. *Tulasi*, *Neem* and *Titepati* have many benefits. You must have heard, *Tulasi ek laabh anek* (Basil one, benefits many). We often use basil as an herbal tea for several ailments such as headache, stomach pain, sore throat, common cold and constipation. Holy basil is planted in most households and it also has religious importance.

*Titepati* is used for minor wounds, injuries, skin problems, and to worship Gods and ancestral deities. *Neem* is used to treat *ghau-khatira* (wound-boils/sores) and is also used for brushing teeth. Both *Neem* and *Titepati* are also used as bioinsecticides. My son cannot recognize these plants. When you ask him to get leaves of *Tulasi* he will bring leaves of *Bawari*. This is disappointing.”

Showing the trend of intergenerational loss of indigenous herbal knowledge, a school teacher said, “My grandfather used to know 100, my father knew 50, I know 25, but my son knows five.” It means his son knows only five percent [not 12.5 percent, as per the trend he explained] of what his son’s great-grandfather used to know about medicinal plants. In other words, his son knows only 20 percent of what he knows. His son would have known 50 percent of what he knows had the trend been followed. He further added, “My son knows far below the trend, and if this continues, our herbal tradition will become a history at the time of my grandsons and great-grandsons.”

An elderly woman who also serves as a traditional birth attendant shared, “We used to grow and collect most of the *jadi-buti* (roots and plants of medicinal value) from our home garden or agricultural land when required for our use. Now, they [family members, villagers] do not care about the medicinal plants. They do not value them. They have stopped cultivating them. And what is more, they have destroyed the naturally growing plants. We used to buy *shilajit* (Rock Exudat), *Padamchal* (Rheum australe D. Don), *Jatamasi* (Veleriana jatamasi jones), *Bhakimlo* (Rhus Semialata), *Timur* (Zanthoxylum armatum DC), *Hing* (Asafoetida) and many such *jadi-buti* from the Jumli (vender herbal healers from the Himalayan districts). Now many of them have stopped to come around.”

### Market Influence, Increased Health Care Options, and the Shrinking Role of Healers

Many indigenous foods also work as medicine (Payum et al., 2014; Subedi, 2004; Sunuwar & Dong, 2015). However, the present food practices are heavily influenced by manufactured and packaged food items. A woman participant explained:

Our mother used to know what to eat and what not to eat to prevent illness or for fast recovery. But we do not know which food is good for what type of health problem... There were many things my mother used to know, but I do not know. For example, I know *jwanoko jhol* [a type of soup prepared from thyme seed] is healthy for a woman during the postpartum and lactating period. The *jwanoko jhol*, which my mother used to prepare, used to be very tasty. I can make *jwanoko jhol*, but I do not know how my mother used to prepare.

Another elderly woman participant shared, We have stopped preparing *okhte-pitho*, medicinal flour [usually given to recently delivered woman] which our mother used to make and serve us during

the postpartum period. *Okhte-pitho* is made up of wheat flour cooked in ghee and added with thyme seed, fenugreek, carom seed, coconut and other ingredients. Similarly, *lito*, flour made up of roasted rice, wheat, maize, gram or soybeans and prepared semi-solid food to serve babies, and *satu*, a type of ready-to-eat flour made from baked grains such as barley, maize, and gram for aged and all, which can be taken instantly by mixing (hot) water or milk; and other traditional food items [such as *jaulo*, *khichadi*, *khurma*, etc.] have become not so appealing items now. Not only children but also young and elderly desire for market items such as biscuits and bread, cookie and cakes, chips and *chauchau* (noodles).

The market has influenced traditional health food practices and health-seeking behavior. As mentioned above, people increasingly utilize biomedicine and often buy medicine for self-medication. A village priest points to the increased use of over-the-counter drugs:

People in our village have become too lazy to collect medicinal herbs in their home garden and agricultural fields. Rather, they find it easy to go to a medical shop and buy some tablets... Now they go to the Patanjali store even to buy *go-mutra* (cow urine) despite the cattle they have in their cowshed. It is no joke.

Although expanding healthcare markets has increased the options, this has adversely affected local health practices.

Many of the study participants believed that indigenous traditional healers are less consulted than before. Many healers suggest their patients go to hospitals, and some traditional birth attendants accompany them to the birthing center. Their role has shrunk to postpartum care and massage as fewer women opt for home birth. The number of experienced indigenous traditional healers is dwindling. They say, “Now, knowledgeable indigenous traditional healers are hard to find.” Those available in the village hold limited knowledge about medicinal plants and the skills required to diagnose and treat illnesses. The young generation is unwilling to learn or follow the tradition of healing practices. It is also hard to find practicing young indigenous traditional healers having a good knowledge of medicinal plants and their usages. The average age of the healers (60 years) also shows that many elderly healers have not found their successors. There were only three healers (out of 18) below 50 years of age. A relatively educated and young healer said, “My father died last year. He used to treat snake bites, but I do not know the herbs used and the methods followed for diagnosis and treatment. Sadly, I cannot distinguish between venomous and non-venomous snakes. When you cannot distinguish between them, you must treat all snakes as venomous. I cannot treat snake bites. All I can do is advise them to rush the snake-bitten person to the hospital.” Another participant (mid-forties) echoed the same:

There are wide varieties of wild mushrooms in our jungle. Our parents and grandparents used to recognize them. Some were used as vegetables and some were used as medicine. Those mushrooms used to be tasty and healthy. But, I cannot recognize many of them. When you cannot recognize them fully, you have to treat all types of wild mushrooms as poisonous. Similar is the case with wild yams and vegetables. We cannot distinguish between poisonous and non-poisonous ones. Hence we have to consider all of them as poisonous stuff. You know, some of the wild yams and vegetables can be bitter, allergic, and poisonous if you do not prepare thoroughly.

The above narratives indicate how little knowledge limits indigenous health practices and food choices. One of the reasons for not utilizing medicinal plants and not consuming wild vegetables, yams and fruits is the lack of knowledge. In the past, the villagers collected wild vegetables, honey and fruits from the forest. They have stopped entering the forest because of the changing way of life or the prohibition imposed on entering the forest to collect forest products. Besides, many of the wild herbs, fruits and vegetables are being depleted because of overexploitation. An elderly person shared his experience:

Once herbal traders gave an attractive rate and fellow villagers unwisely collected the roots of *ban kurilo* (*Asparagus acutifolius*). We use *ban kurilo* to treat various ailments. Now, it is not easy to find them in our nearby jungle. We have to go far inside and spend time collecting them.

An adult whose father was a traditional healer regrets not learning from his father:

My father was a healer. He used to know many useful herbs and treat many illnesses with them. People used to consult him for veterinary problems and also for the castration of he-goats [to make khasi] and roosters [to make *badiya bhale*]. I do not know all these things.

An elderly healer expressed:

You can use medicinal plants, only if you have thorough knowledge about them. If you do not have thorough knowledge about them and use them with half knowledge, that is *alpa bidhya bhayankari* (little knowledge is dangerous). There are many medicinal plants around you but what the use of those plants is for you if you cannot recognize them and you don't know how to use them as medicine? That is similar to *jannelai srikhanda najannelai khurpako bid* [A proverb, Sandalwood for those who know, sickle-handle for those who don't know]. When you don't know the real value of an object, that becomes a valueless/useless thing for you. If you don't know the real value of medicinal herbs you will treat them as valueless/useless things. You can now see young healers prescribing manufactured herbal medicine rather than preparing medicine from crude herbs. Because they don't know how to prepare medicine for their patients.

### The Value Perception of Indigenous Knowledge

Value perception plays an important role in the revival of indigenous knowledge. High perceived value results in increased interest in learning and practicing indigenous knowledge, thereby contributing to protection efforts. Though indigenous knowledge has its merits and is of special importance in the local communities, the dominant tendency seems reflected even among the study participants. Indigenous knowledge is less valued and indigenous knowledge holders are far less respected and appreciated for their knowledge (Lekhi, 2019). For example, indigenous traditional healers are not recognized for their healing prowess.

However, a key informant believed that everyone's knowledge is equally important. The key informant shared a story of Bote (an indigenous boat driver) and a pilot. The indigenous boat drivers usually belong to Bote or Majhi ethnic communities, also known as fishing communities in Nepal.

Once, a young pilot, self-praised for his knowledge and skills, had to cross a large river. A Bote, whose hereditary occupation is boating and fishing, boarded the pilot in his boat. The pilot boasted of his knowledge and skills while crossing the river:

"I can fly a plane in the sky. Can you fly a plane?"

"The Bote replied, "No, I cannot."

"You poor fellow, you know nothing!"

It was a rainy season and the river was growing. When the boat reached the middle of the river, the river swelled with flooding water. Bote made an extra effort to move the boat fast. But in a short while, a forceful current of the floodwater hit the boat and the boat lost its balance and it became uncontrollable. The boat was about to turn upside down. The pilot looked scared. Bote asked the pilot,

I can swim. "Can you swim?"

The pilot replied, "No, I cannot."

"You poor fellow, you know nothing!"

The pilot realized his limit as he was about to drown in the river. The Bote jumped into the river, swam to the riverbank, and saved his life. The moral of the story is that everyone's knowledge counts.

Participants have different value perceptions regarding indigenous knowledge. People responded differently to the question, who is knowledgeable and whose knowledge counts? (*Gyani ko ho ani kasko gyanko mahatwo chha?*). The dominant perception is that indigenous knowledge is indeed considered inferior in many instances. A retired government employee explained:

If you know the use of Paracetamol, De-cold, Digene, and the like, you are considered knowledgeable. Your knowledge counts. But your knowledge doesn't count even if you know the use of medicinal herbs such as *Tulasi* (Holy basil), *Neem* (*Azadirachta indica*), and *Amala* (*Phyllanthus emblica*), etc. You are knowledgeable if you know *jeevan jal* (Sachet of rehydration solution) but your herbal knowledge

doesn't count even if you know the use of *jadi-but*i or *nun-chini-pani* (salt- sugar-water solution) to treat loose motion... You are knowledgeable if you run a mill but not if you run a *pani-ghatta* (indigenous water-mill to grind food grain). Your knowledge is valued if you drive a tractor/ power tiller but not if you plow oxen. The knowledge of injection and stethoscope is far more valued than the knowledge of biting drum (*dhyangro*) and chanting mantras. Even in the music, the guitar is valued more than the *Sarangi* (Nepali violin), People do not give importance to such traditional knowledge.

An elderly patient recently recovered from what he called black jaundice explained:

I consulted a doctor from Ghorahi, and from Nepalgunj and at last Chitwan. I spent a lot, but none of them could diagnose and treat my illness. I was bedridden and hopeless. One of my neighbors suggested consulting a *vaidya* (traditional herbal healer). I didn't have much faith because I wondered how a *vaidya's jadi-but*i could cure what doctors' medicine couldn't. I was wrong. The *vaidya's* medicine, the concoction and the powder cured my black jaundice. For me, he was more knowledgeable than the medical doctors I consulted to treat black jaundice. However, *vaidya* do not enjoy the same prestige as the doctors.

### Discussion

The study's finding affirms Bodeker & Burford (2007) that "a substantial intergenerational loss of traditional medical knowledge" is taking place in the study area. The majority of the participants were of the view that home and community-based health practices are declining. The participants of this area resonate with the participants of other districts, as Thorsen (2015, p. 87) quotes a woman from Mustang,

Most of the people nowadays like to talk only about the hospital. They only think of hospital, hospital, hospital. In general, we also use hospitals. But if we knew about the medicinal plants properly, then the medicinal plants would be the good ones.

Thorsen (2015) further notes that treatment choices are affected by changes in lifestyles, new values, and the desire for faster and easier treatment methods. It points to a change in treatment-seeking behavior and an erosion of herbal/health knowledge.

Many factors contribute to the erosion of indigenous knowledge and practices. Kodirekka (2017) shows how internal factors (local socio-economic and environmental conditions) and their interaction with external factors (the external intervention) led to the erosion of indigenous knowledge among Konda Reddis of South India. When internal factors created a condition for Konda Reddis to shift from shifting cultivation of millets and pulses to cashew (a cash crop) with NGO/government intervention, it affected

the local environment, undermined traditional cultivation practices, and led to the erosion of indigenous knowledge. He posits that the young generation has considerably less knowledge about forests, plants and the cultivation of traditional crops. Similarly, Maunganidze (2016) in a study in Zimbabwe, points not only to exogenous but also endogenous factors. The healers often "ring-fenced" their expertise or died without transferring their knowledge to the next generation (Maunganidze, 2016, p. 5). Indeed, many healers keep their healing knowledge secret, and when they die without transferring their knowledge, their knowledge dies with them.

Scholars have also pointed to the socio-economic change, increasing access to biomedicine, market influence, and loss of access to habitats of medicinal plants, erosion of indigenous language, culture and value system and lack of teaching-learning activities, and lack of documentation (Shah & Bhat, 2019, p. 245). Hedges et al. (2020) point to the sociocultural factors contributing to local perceptions of a decline in indigenous medicinal knowledge among young generations. They state that the "limited in situ learning opportunities within the local environment is a leading factor in the perception of intergenerational erosion of knowledge." Weckmüller et al. (2019) found a correlation between medicinal plant knowledge and formal education, community location, road connection, and access to health care services. Improved transport infrastructure and increased access to health facilities resulted in a loss of ethnobotanical knowledge. Brodt (2001) posits that "knowledge is best conserved in situ", the knowledge that seems useful among the indigenous communities hold the potential to be survived and "scientists, development workers, extension agents, and "outsiders" are not the one who will actually preserve indigenous knowledge in those places where it is threatened. In the end, only those people inventing, using, and passing on that knowledge in their daily work can and should determine its fate (Brodt, 2001, p. 117)".

Both internal or endogenous or micro-level and external or exogenous or macro-level causes/factors are important in understanding the erosion of IHKPs. However, it is the macro socio-economic and political forces that have the far greater power to influence the micro-level, shape the perceptions and influence the behavior. It would be unjust to blame people for the loss of indigenous health knowledge. Indigenous health knowledge is declining mainly because of the state policy, which has demotivated the young generation to learn and practice (Subedi, 2016; Subedi & Joshi, 2018). Indigenous traditional healers are not treated as allies of healthcare practitioners. The state policy does not treat them as legitimate practitioners. Even so, they enjoy community support and social legitimacy because they command the trust of the community people. Maunganidze (2016) posits, "The absence of active involvement of traditional herbalists and healers in the design and administration of public health programs has

contributed to the erosion of indigenous knowledge (p. 7).”

The indigenous traditional healers are often well-versed with local flora and fauna and are the repositories of indigenous wisdom. Their knowledge needs to be respected, researched, documented, validated and used to benefit the indigenous communities and the community at large. The official medical practitioners, both biomedical and traditional, must be oriented to beneficial indigenous health practices and establish mutual trust and respectful relationships with the indigenous healers (Cousins, 2020). Collaboration with the indigenous traditional healers is vital because of the trust they command in the community (Miller, 2014). Community people often consult them before seeking help from professional practitioners or visiting health facilities (Jimba et al., 2003). In a way, they have contributed to the protection and preservation of indigenous knowledge in herbal medicine by continuing their practice. Including the IHKPs in the academic curriculum can help boost the importance of indigenous health knowledge. The modern education system and teaching-learning activities depart young minds from the local communities and alienate graduates from their cultures (Payyappallimana, 2013). Indigenous students are not taught in their own language and indigenous knowledge does not get a space in the course contents. The revival of indigenous culture and language is important for the prevention of intergenerational loss of indigenous knowledge.

Indigenous health knowledge and practices have been intimately embedded in the cultural tradition of indigenous communities. Indigenous communities see nature as God and medicinal plants as God-gifted resources. They pray nature god, worship the land, (*bhumi puja*), livestock (*gaidu puja*), and plants (*banaspati puja*) (Gurung, 1987; Gurung & Kittelsen, 1996, p. 83; Lohani, 2012), ask for permission and forgiveness before collecting herbs and perform rituals that respects the natures. They have certain rules for collecting herbs without making them endangered or depleted. They follow long-established procedures to process the medicinal herbs and use them along with mantras and healing rituals. They do not see these resources from a commercial lens even though the recent change and development have polluted their cultural value systems but they are still far ahead in terms of moral values and ethical strengths.

Indigenous knowledge has been nourishing scientific knowledge. The unequal exchange of knowledge or the exploitative nature of the Western scientific knowledge generation system also contributes to devaluing the indigenous knowledge system. The biomedical health knowledge system either discards the indigenous health knowledge that is not proven or yet to be proven scientifically or incorporates into its fold that has been scientifically proven (Lee, 1982; Subedi, 2018). Indigenous knowledge serves as an open source of knowledge and hence, is prone to misuse, misappropriation and biopiracy.

Unlike scientific knowledge generation, which is related to laboratory experiments and individual ownership, indigenous knowledge is related to experiential learning and collective ownership. Indigenous knowledge falls back in terms of intellectual property rights and patenting because indigenous knowledge is collectively owned by indigenous communities and is mostly free from commercial motives. The documentation of IHKPs helps in preventing biopiracy and protecting intellectual property rights. However, IHKPs largely remain undocumented because these represent the knowledge domain of oral tradition, passed from generation to generation and person to person.

There are issues related to the politics of knowledge and knowledge recognition. Knowledge is power and health knowledge has the greater power over which the dominant sections have control. In the realm of knowledge, “one kind of knowledge gets priority and power, and others tend to be denigrated or ignored” (Priya et al., 2020, p. 21). The dominant mindset is that biomedical knowledge is the only useful, relevant, valid, and legitimate health knowledge. Political and policy decisions can legitimize indigenous forms of health knowledge. The indigenous knowledge over which indigenous communities have better access and better control and strengthening of the indigenous knowledge system would empower indigenous communities. Given the contemporary policy priority, the indigenous communities have found themselves pushed in such a margin from where neither they can see their IHKPs becoming strong and efficient nor do they have access to official health services. Neither do they have something on which they can stand, nor do they have something they can hold. The indigenous health knowledge, over which they have control and to which they have better access, is eroding and the erosion of IHKP does not seem to bother the state. The official health care is considered of better quality, but they do not have access, and no matter what the political rhetoric is, the state has not succeeded so far in ensuring access to quality health care services to all. In the realm of health knowledge, indigenous health knowledge is often discounted as inferior or irrelevant. The perspective that considers indigenous health knowledge inferior, invalid, and illegitimate needs to be challenged.

### Conclusion

The erosion of indigenous health knowledge is a matter of grave concern. Village narratives are sufficient to explain the erosion of and concern over the IHKPs. These narratives also indicate the wider socio-economic and political forces that have brought changes in village life and beliefs and perceptions. These forces pose a challenge to address the factors responsible for the loss of IHKPs. The challenge before us is to protect IHKPs from further erosion with appropriate policies and programs. Indigenous knowledge is best protected when it retains relevance and



indigenous communities continue to practice. Efforts are needed to enhance home-based and community-based health knowledge and practices. At the community level, indigenous traditional healers have been playing an important role by practicing indigenous health knowledge. One of the best strategies would be to encourage these healers to practice as legitimate indigenous traditional medicine providers and motivate the young generation to learn IHKPs. Recognition of knowledge, by and large, is a political decision. State policy largely decides whose knowledge gets recognized and mainstreamed, whose knowledge gets ignored and sidelined, and whose knowledge counts and does not. Mainstreaming of IHKPs can contribute to health and wellbeing. The indigenous traditional healers can contribute to protecting the IHKPs, provided that they have a meaningful role in the national health system. The recognition of knowledge should be a political and policy decision in the protection and promotion of IHKPs

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##### Conflict of Interest

I declare no conflict of interest.

##### Ethical Conduct of Research

I declare that this research was conducted ethically.

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