

Survival under pandemic: Significance of traditional health care system of an eastern Himalayan tribal population in India

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Abstract: In the wake of the COVID-19 pandemic, diverse communities in India, including the Lepcha community of the Himalayan region, found themselves grappling with the crisis and adapting to their ways of life. The Lepcha people, known as the Rong, are indigenous to these regions and are characterized by their deep religiosity, peace-loving nature, and innate shyness. The study delves into the connection between the Lepcha tribe's Indigenous Knowledge System and the quarantine and lockdown measures imposed due to the Pandemic. The researchers conducted the study in Pochok Busty, Git-Dablung (Kalimpong), focusing primarily on Buddhist Lepchas who continue to follow traditional healthcare practices. The study aimed to document traditional knowledge and healthcare systems amidst the COVID-19 pandemic and assess any alterations in healthcare practices, rituals, and festivals. Additionally, it sought to understand the Lepchas' perception of modern medicine and vaccine acceptance. The study utilized both primary and secondary data sources. We conducted structured interviews with various community members. This document embodies a sincere endeavor to investigate the traditional healthcare customs prevalent among the Lepcha community, their approach to addressing the issues brought about by the impact of COVID-19, and the therapeutic techniques they put into practice. While prior research has often noted a preference for traditional healthcare systems over allopathic medicine among Lepcha communities, this study reveals a distinctive pattern. The Lepchas prioritized traditional and modern healthcare systems, with traditional methods taking precedence. The findings underscore the critical importance of raising awareness and documenting traditional knowledge, particularly in times of crisis like the COVID-19 pandemic, and for future reference.

Keywords: Indigenous knowledge system; Pandemic; Healing; Health; Culture

1. Introduction

The global impact of COVID-19 on health and well-being is evident, affecting individuals worldwide. In India, diverse communities, including tribal societies, have confronted the challenges of the pandemic and are striving to navigate these difficult times. In response, numerous nations have implemented public health measures to curb the spread of the virus. Measures like stay-at-home orders and physical distancing protocols have led to the closure of schools and workplaces and the cancellation of various events. For Indigenous communities, the consequences are

profound, as physical distancing restricts traditional celebrations and ceremonies integral to marking significant life events. This situation is particularly distressing for Indigenous communities as their identities are deeply rooted in fulfilling interdependent roles within social networks, encompassing local trade systems, cultural rituals, and hands-on social support.

However, even in the face of the distinctive challenges posed by the ongoing Pandemic, Indigenous communities have a long history of confronting obstacles to both individual and collective survival. Our forebears navigated numerous catastrophic events, enduring the impacts of colonization, land loss, and successive epidemics of diseases like smallpox, tuberculosis, and influenza. The resilience and strength exhibited by past generations have been bequeathed to us, serving as a foundation for our response to significant societal shifts.

Indigenous people hold a profound understanding that they define their worldview based on the interconnectedness of all living entities [1]. Within the wealth of Indigenous knowledge systems lie the answers essential for alleviating the challenges posed by physical distancing protocols on Indigenous communities, encompassing physical, intellectual, mental, and spiritual well-being [2]. The first documented case in India occurred on January 30th, 2020, in the Thrissur district of Kerala. Subsequently, the virus spread across nearly all states and Union territories. Despite the significant impact of the lockdown on the daily routines of the entire 1.3 billion population and the nation's economy, the people of India resiliently addressed the global health crisis [3]. Amidst the nationwide lockdown and the state's health emergency, it becomes crucial to examine how local communities navigate the challenges posed by the Pandemic, drawing upon their long-standing indigenous knowledge systems (IKS) to safeguard themselves. The study of healthcare and healing practices holds significance within the sociocultural fabric of India due to the diversity in medical beliefs and practices. In addition to the widely recognized systems like Ayurveda, Allopathy, Unani, Homeopathy, and Siddha, numerous traditional beliefs, rituals, customs, and practices intertwine with healthcare and healing.

The Lepcha community primarily shapes its understanding of health, sickness/illness, and disease through supernatural beliefs ingrained in its ecological environment. According to Lepcha's beliefs, benevolent spirits (*Rum*) and malevolent spirits (*Mung*) influence the well-being of individuals. Given the variations in social institutions across societies, including health-seeking behavior, each community has distinct methods of defining and fostering good health while addressing the ailments afflicting its members [4]. Studies by Palit and Banerjee [5] have extensively documented the Lepcha community's traditional ethnomedicinal knowledge and conservative lifestyle in Darjeeling and certain parts of North Sikkim. Panda and Mishra [6] focus on the beliefs, practices, and prospects of folk healers in Sikkim, revealing a declining trend among the younger generation to embrace this profession. Singh and Chakraborty [7] explore *Munism* as a religion deeply rooted in Lepcha culture, with religious manifestations tied to faith in supernatural powers. The study

indicates the fading practice of *Munism* due to the influence of Lamaism, modernization, and globalization, which has led to a decreased number of practitioners. Sharma and Sharma [8] discuss the lifestyle of the Lepcha tribe in Sikkim and their traditional beliefs. Pradhan and Badola [9] provided detailed documentation of the underexplored ethnomedicinal practices of the Lepchas in Dzongu Valley. The study examines the changing sociocultural landscape and the transmission of traditional knowledge from older to younger generations in the context of the oldest tribe in Sikkim, along with proposing conservation strategies. While many of these studies have not fully covered the Lepcha healthcare systems, particularly in the context of the COVID-19 pandemic, this research explores the link between the Lepcha tribe's Indigenous Knowledge System and the quarantine and lockdown measures implemented due to the ongoing Pandemic.

2. A Brief Note on The Lepchas

The Lepcha people, Sikkim's original inhabitants, are often called the "Ravine folk." They have a long-standing presence in Sikkim, predating the migration of Bhutia and Nepalis to the region. Like other indigenous communities, the Lepchas maintain a profound connection with the natural world. The Lepchas traditionally hunted and gathered [10]. Moreover, they led a wholly nomadic lifestyle nomadic life. The term "Lepcha" lacks an identifiable origin, and the community members refer to themselves as "*Rong*," pinpointing their ancestral homeland near the majestic Mt. Kanchandzonga. [11]. The Lepchas possess a distinct language and a unique script known as *Rong* or Lepcha script, which has evolved from the Tibetan script [12]. They worship the nature god during *Rum-Faat* to protect the cereals, fruits, vegetables, farms, and the surroundings for productivity and prosperity. Therefore, they offer the deities their agriculture and wild produce during the *Chirim-Faat* ceremony. The Lepchas believe in *Itbu Mu* or *ItbuDebu*, revered as their supreme God. Shamans conduct ceremonial rites called '*Rumfaat*,' which serve as ceremonies to invoke the divine (*Rum*). The Lepchas predominantly adhere to Buddhism, although many have embraced Christianity, especially in the Darjeeling and Kalimpong sub-divisions of West Bengal. They acknowledge the existence of semi-divine beings or guardian spirits called *Lungzee*, believed to dwell within various natural elements in their surroundings. Neglecting or disrespecting these spirits by damaging or contaminating them and their environment is believed to lead to affliction for the individual or the entire village.

3. Objectives

The prime objective of the paper is:

- The primary goal was to record age-old wisdom and healthcare mechanisms during the COVID-19 pandemic, examining potential modifications in healthcare methodologies, ceremonial practices, and festive traditions.
- The objective was to comprehend how the Lepcha community views contemporary medical practices and embraces vaccines.
- How did tribal communities reinstate indigenous lockdown practices or isolation rituals to combat the Pandemic?

4. Methodology

This research adopts an empirical approach, focusing on qualitative data collection rather than quantitative methods in the field. The researcher meticulously recorded and transcribed the interviews verbatim using a semi-structured interview guide with open-ended and probing techniques. Every participant offered written consent for their participation. The study involves people from Pochok (Upper and Lower Pochok) Busty in the Kalimpong sub-division, including residents, herbalists, and male/female priests. This diverse sample provides a well-rounded perspective on the community's traditions and practices.

4.1. The Study Area

The researcher conducted the current investigation in the Kalimpong district in West Bengal. The survey specifically targeted the Upper and Lower Pochok Busty of Git-Dubling Khasmahal, chosen due to a higher concentration of the Lepcha population. The journey from Kalimpong to Pochok is approximately 43 km, and from Git-Dubling to Pochok, it is around 6 km. The primary occupation in the village is agriculture; besides agriculture, horticulture also plays a vital role in the economic upliftment of the local inhabitants. Despite having electricity, it faces challenges such as poor roads, and one has to travel a distance of two hours to visit the Primary Health Centre in Git-Dubling. Additionally, there is only one primary school in Lower Pochok.

The study primarily focused on Buddhist Lepchas, so the findings may only partially represent the diversity in practices across different religious groups in the region.

5. Results and discussion

The study was based on qualitative primary data collected through empirical field work and direct interaction between the researcher and research participants. No sort of coding method was applied in this study. After the pilot survey, some objectives were initially framed. However, with the progress of the main fieldwork and primary data collection, the goals were modified, and all the

objectives were achieved through qualitative data collection. In this regard, the participant quotations, like participant numbers, were appropriately identified, and transcriptions were done accordingly. Proper synchrony and consistency existed between the data presented and the core findings. To address all the major themes, in the method of descriptive ethnography, relativistic and reflexive approaches were applied to avoid any minimum level of bias, ethnocentrism, and speculations from the research participants and researcher. Analysis of data and its interpretation were done based on the people's perspective, their daily livelihood, and traditional healing practices. Apart from the core aspects, specific minor co-related facts relevant to the core issues were also considered. It can be noted that, in the data collection and analysis process, no software was applied. The significant findings of the study are discussed below.

5.1. *Indigenous Knowledge and Resistance of the Pandemic*

COVID-19 exhibits similarities with well-known respiratory illnesses, resembling the common cold or flu. It manifests with typical respiratory symptoms like a dry cough, fever, and shortness of breath. In severe cases, it can potentially lead to fatal outcomes [13]. The similarity suggests that individuals can apply indigenous knowledge remedies to address the COVID-19 pandemic, much like they have previously handled other diseases with comparable symptoms. This approach aims to prevent the loss of valuable lives.

Significantly no evidence of pandemic were noticed among the Lepcha people. The community has maintained good health, relying on nature-based and eco-friendly health management practices. Their extensive knowledge is derived from years of experience and careful observation, emphasizing a holistic and sustainable approach to well-being [14].

In times of illness, Lepcha rituals take precedence as initial remedies for the ailing, with modern healthcare considered as a secondary option. Agrawal's article "Dismantling the Divide between Indigenous and Scientific Knowledge" challenges the idea that indigenous and scientific knowledge are fundamentally different. He argues that considering them as contrasting forms of knowledge is not valid. According to him, collaborating with both types of knowledge is essential for achieving optimal results [15]. This dual approach reflects traditional and contemporary practices in addressing health concerns. Lepchas visit the primary health center in Budhabarey for severe medical cases, which is six kilometers away from their location. The cost of traditional treatments varies depending on the patient's willingness to pay the traditional healers, such as the medicine man (*Moandoak*) and the male priest (*Bongthing*). Local individuals prefer Traditional herbal remedies, driven by their belief in the effectiveness of these folkloric herbal solutions. This inclination reflects a trust in the age-old practices and treatments passed down through cultural traditions within the community [16]. Also in remote areas, people prefer indigenous medicine administered by local healers because it is more affordable than modern medicine's high costs [17].

Despite the COVID pandemic, no one has contracted any diseases or COVID-19. However, some who studied or worked in different locations acquired COVID-19 or mild colds and fever. They isolated themselves for fourteen days in a Primary school. Traditional medicine effectively treated their mild symptoms, including cold and mild fever. During the Pandemic, they followed government protocols such as wearing face masks, practicing social distancing, frequent handwashing, maintaining a healthy diet, and paying attention to their food habits (avoiding cold and sour foods). During the Pandemic, they performed a *Sansari Puja (Lungzee Fat)* to bring peace and prosperity to the people, livestock, crops, and the village (**Figure 1**). Despite hearing advice against COVID-19 vaccination, they chose to get vaccinated and experienced minor side effects like slight body pain and a night of fever. The younger generation has limited knowledge and belief in traditional healthcare practices. Their parents typically care for them when sick rather than teach them about conventional methods. They used *Titepat (Titeypati in Nepali, Tuk Nyil In Lepcha Term)* (Leaves/Twigs). Moreover, Tulsi will treat their children during the Pandemic. They boiled Tulsi leaves in water and then covered their faces with a cloth to inhale the steam. They found that traditional medicine was more effective than modern medicine in treating their symptoms during the COVID-19 pandemic. They intend to continue relying on Traditional medicine in the future.

During the COVID period, there was social and psychological support provided to those who experienced COVID or were in isolation while maintaining government protocols. In their healthcare practices, they primarily rely on traditional healthcare methods. They turn to hospitals only when the condition remains uncured or becomes severe. During the COVID pandemic, they did not visit a hospital. Instead, they obtained medicine from the primary health center, located Six kilometers from their residence. The nearest hospital is more than Twenty kilometers away. They believe cold and fever were common ailments before and during the COVID-19 pandemic. They found that the medicine obtained from the primary health center effectively treated their symptoms, indicating satisfaction with this approach.

They practice the veneration of Leeram Pitra, their ancestors, as a part of their religious and cultural beliefs. Before taking a sick person to a primary health center (PHC) or other hospitals, they pray to seek blessings and guidance from their ancestors, deities, and goddesses. This ritual is an integral part of their healthcare decision-making process.

They follow a two-step approach when seeking medical treatment. First, they engage in a prayer ritual, offering their prayers to *Kul Devta* (family deity) or performing Pitra Puja (ancestor veneration). After the initial prayer, they utilize modern medicine, believing that this combination enhances the effectiveness of current medical treatments. They express no issues or reservations in adhering to government protocols related to healthcare and safety during the COVID-19 pandemic.

Some of them were of Christian faith. In the past, the Lepcha followed animistic beliefs, seeing a soul in every inanimate object as an integral part of nature [18]. The Christian Lepchas did not solely rely on traditional healthcare practice. Instead, they depend on primary health centers (PHC) and hospitals for their medical needs. They believe that the Lord protected them from the COVID-19 virus. They also noted that their area has low pollution and is not overcrowded, which they believe contributed to their safety. They mentioned a contrast with people of the Buddhist faith who tend to rely on traditional healthcare practices before seeking assistance from PHC or hospitals. This difference arises from Buddhist concerns about specific medical practices, such as the use of saline water or the risk of injecting rust from iron objects during medical procedures, which they believe might hinder the recovery of the sick person. While Christians do not place much trust in traditional healthcare practices, they offer advice to others in their community. They recommend visiting a hospital if Traditional methods do not yield positive results. While some Christians may turn to herbal remedies, they do not do so through religious practitioners like *Mun*, *Bongthing*, or *Lamas*.



Figure 1: Place where *Sansari* (mother goddess on earth) Puja "*Lungzee faat*" was done during the Pandemic

5.2. Monk

During the Namsong festival, a monk performs the Chi Fat ritual. They first conduct the Chi Fat ritual if they need to visit a hospital. They believe that this ritual is essential for the effectiveness of modern medicine. During the COVID pandemic, they successfully treated cold and fever symptoms with traditional remedies like *Tulsi* (Holy basil), *Titeypati* (Mugwort), *Chirauto* (*Chirauto* in Nepali, *Rung Ken* in Lepcha) and modern medicine. According to the IUCN criteria, Ved et al. [19] classify *Swertia Chirata* (*Chirauto*) as a critically endangered species in Himachal Pradesh, India, and as vulnerable in North-East India [20]. Some ethno-medical studies were also conducted among the

Lepcha community [21]. He mentioned performing a *Sansari Puja* day and night. This puja uses a Copper jug, *Titeypati*, Milk, Water, Ghee, and scented plant Twigs (*Dhup/Sukpa*) on charcoal. They spread the fragrance inside and outside the house while remembering various deities, including *Devi, Deuta, Nag, Nagina, Sansarik* and *Pitra*. Before having a meal or *Chi*, he bathes and performs the *Sansari Puja* every morning. Millet beer, known as *Chi*, holds significant cultural importance in Lepcha traditions and is often consumed to celebrate good health [22]. They also use *Titeypati* and water to remember all deities and sprinkle water in all directions. For festivals like marriages and rituals like death ceremonies, they continue to perform them in the same traditional way as before the Pandemic. However, during the Pandemic, they followed government protocols to ensure safety. He believes there is no skepticism about Traditional healthcare practices in their community. They emphasize the importance of maintaining a positive attitude towards these practices, as a negative attitude might reduce the effectiveness of traditional medicine. He is a monk and acquired traditional knowledge from his guru and through personal visions.

5.3. *Mun (Female Priest)*

After receiving the COVID-19 vaccine, she sometimes experienced body pain. In response, she prays to *Lungzee* (Deity) and *Pitras* (ancestors) and relies on modern medicine for relief. During the COVID pandemic, her family predominantly used modern medicine instead of local herbs to address health issues. The younger generation in her community has little interest or knowledge of traditional healthcare practices, and the study conducted [23] revealed that a significant majority of youth are familiar with the indigenous knowledge system of the community. Despite the Pandemic, no NGOs or healthcare practitioners have tried to promote traditional healing beliefs or practices or provide information about COVID-19. She acquired her knowledge from her guru and later through dreams and personal experiences.

5.4. *Bongthing (Male Priest)*

Bongthing observed strict rules and precautions when using herbs or preparing remedies. He cannot take any herbs lightly, and there are specific books, calendars, and directions that guide him in this process. This caution arises from the belief that there may be evil spirits in particular directions, and therefore, he carries out every action carefully. He emphasizes the importance of belief in the effectiveness of traditional healthcare practices. Belief plays a significant role in the success of these practices. He acknowledges that COVID originated from China and does not attribute it to their deities being upset. Hence, this suggests a rational perspective on the Pandemic's origins. During the Pandemic, he provided treatment and cures for people with COVID or COVID

symptoms via video call, as there was a complete lockdown in place, restricting in-person interactions.

5.5. *Moandoak (Traditional Medicine Man) and their role*

The concerned traditional healers use to apply their indigenous knowledge to prepared different ethno-medicine and to cure the ailment of their community members. They recognize the need to rely on current practices of traditional methods are ineffective and well acceptable by the concerned people to a great extent. During the Pandemic, it was challenging to differentiate whether cold and fever were due to COVID-19 or just regular illnesses, as the symptoms could be similar. Being of the Christian faith, he does not perform *Sansari Puja* but believes in worship and prayer to the Almighty. They emphasize that not following the rules of God can lead to illness and disease. He took the initiative to educate the villagers about the dangers of COVID-19 and how to stay safe in the absence of NGOs or other healthcare practitioners during the Pandemic. He did not provide information about herbal medicines, as they believe that exposing this information could reduce the efficacy of these remedies. However, he mentioned common herbs used in treating various conditions, including *Neem (Azadirachta indica)*, *Tulsi (Ocimumtenuiflorum)*, *Titeypati (Artemisia vilgaris)*, and *Chirauto (Swertia chirata)*. The Lepchas primarily rely on wild plants for various purposes. While they do not solely depend on nature for food and shelter, many Lepchas rely on the forest as a source of herbal medicine. However, *Moandoak* did not say following specific directions or days for using herbs, as Christians do not adhere to these traditional practices. The tribal medicine man plays a crucial role in plant protection and conservation, possessing skills in sustainable harvesting that ensure no harm to nature. However, their traditional role as health providers is declining despite their profound knowledge of healing traditions. Various factors contribute to the decline in traditional healing practices [24]. These factors include promoting Westernized healthcare systems, extensive depletion of medicinal plant resources in the forest, a lack of willingness among the younger generation to learn and adopt traditional practices, and insufficient dissemination and transmission of knowledge.

Herbs are typically boiled and taken orally to ensure they do not contain harmful germs. People mainly use roots to make herbal medicine, followed by leaves, but in a small amount. In the case of dosage, adults are administered one spoon and half spoon for a child. In cases where someone has already taken modern medicine, he recommends waiting for at least 5 hours before taking herbal medicine, as combining them too closely might reduce the effectiveness of the herbal remedy. Local people use medicinal plants in two forms: fresh or preserved.

Palit and Banerjee [5] reported that community members use fresh plants directly while preserving others through sun drying or raw salt storage. The '*Maon-Doak*' holds a conviction that revealing his confidential traditional expertise in plant usage to unauthorized individuals would harm the

plants themselves. Moreover, he fears potential misfortune from the displeasure of the supreme deity associated with medicinal plants in the forest. This reluctance to share knowledge likely played a significant role in the waning popularity of this ancient medical system [25]. During the COVID 19 period the initial symptoms were mild fever, cold-cough, chest pain and weakness. To prevent the pandemic at the very beginning, the local Traditional Medicine Man (TMM) advised the regular remedy of by boiling *Tulsi* (Basil) leaves in water with *Titeypati* (Mugwort), *Chirauto* (*Swertia chirata*) and to drink it twice in a day. In their daily diet, the Traditional Medicine Man advised a regular diet comprised of various locally available herbs including *Neem* (*Azadirachta indica*), *Titeypati* (*Artemisia vulgaris*), *Chirauto* (*Swertia chirata*), *banmara* (Crofton weed), and *Golpatta* (Indian pennywort). During the pandemic, as advised by the TMM, they avoided cold and sour foods and relied on locally produced foods from their land, such as ginger, when they caught colds. Millet beer, known as *Chi*, held significant cultural importance in Lepcha traditions and was often consumed to celebrate good health during the COVID-19 pandemic.

6. Conclusion

The Lepcha people, recognized as the "Ravine folk" and the original inhabitants of Sikkim, have a long-standing presence predating the arrival of Bhutia and Nepalis. Like other indigenous communities, they connect deeply with nature and follow traditional rituals. Despite the COVID-19 Pandemic, there have been no reported cases in their community. Individuals who acquired mild symptoms or contracted COVID-19 in different locations found effective treatment through traditional medicine. During the Pandemic, they adhered to government protocols, performed ceremonies for peace and prosperity, and chose to get vaccinated despite some hesitations. The younger generation needs to learn more about traditional healthcare, as parents typically care for them during illnesses. The community plans to continue relying on traditional medicine in the future. Bongthing, a traditional healer, provided remote treatment during the lockdown, and some community members also sought medical assistance from primary health centers and hospitals. Their faith, low pollution, and less crowded environment contributed to their perceived safety during the Pandemic.

Most of the people among the Lepchas dwelling in Darjeeling and North Sikkim exhibited a greater reliance on allopathic treatments than traditional healthcare methods. While the current study reveals a notable reliance on traditional methods among Buddhist Lepchas, there is also an overall decline in traditional knowledge within the broader Lepcha communities.

The time-consuming and labor-intensive nature of collecting medicinal plants and the need for more sufficient skills for proper identification may contribute to this shift away from traditional practices. The increasing accessibility of modern healthcare facilities in urban areas and establishing primary health centers and village sub-centers have contributed to a diminishing dependence on

ethnomedicinal practices. Healthcare providers should understand that patients' cultural beliefs closely tie their perceptions of illness and choices for practical and acceptable treatments. Recognizing these cultural influences is essential for delivering comprehensive and patient-centered healthcare.

7. Recommendations

During the pandemic period a crisis of survival emerged globally. Government of India and Government of West Bengal took a number of initiatives to secure the human life from the pandemic. However, in the life of the studied people their indigenous knowledge, ethno-medicinal practices, traditional way of livelihood played a very crucial role and successfully protected the human lives. The key factor here was about the perception of people related to the pandemic and how they had applied their indigenous knowledge and cultural practices against the pandemic outcome in their locality. Such contextual or cognitive knowledge may be well documented as a part of their rich ethnic heritage as well as a source of remedy against the pandemic for the wider society and people.

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