Research Article

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Perceptions of Health and Care-Seeking Behaviors of Patients Living in High-Altitude Villages of Rural Nepal

Sasha Selby[1], Antonia Arnaert[2*], Norma Ponzoni[2], Suzanne S. Dunne[3], Colum P. Dunne[3]

[1] Graduate Entry Medicine School, University of Limerick, Ireland
[2] Ingram School of Nursing, McGill University, Canada
[3] Centre for Interventions in Infection, Inflammation & Immunity and Graduate Entry Medicine School, University of Limerick, Ireland

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***Corresponding author**
antonia.arnaert@mcgill.ca.

Abstract

Background: Nepal continues to struggle to increase its population access to healthcare, especially in rural and isolated villages where primary healthcare is offered through local health outposts. However, people often prefer to consult initially with traditional healers for minor issues as this is more aligned with their cultural beliefs and practices. Knowing that Nepal is undergoing healthcare reform, it would be timely to explore perceptions of health and care-seeking behaviors amongst patients living in high-altitude communities in rural Nepal for consideration in future planning and policy; which is the purpose of this qualitative study.

Methods: In-person, semi-structured interviews were conducted, with the use of a translator, with 17 participants, living in two rural villages. After transcribing the interviews, themes were identified using thematic analysis.

Results: People expressed the belief that they hold expertise in sustaining health due to their naturalistic lifestyle and community-focus developed within the context of a unique local culture and environment. When faced with a health problem, villagers are compelled to seek treatment from available healthcare offerings. Their care-seeking behavior and their eventual choice between Modern and Belief-based medicine is filtered through a number of considerations: the ease of its accessibility, the cost of services, their prior knowledge related to the illness, their belief system, and the severity of the medical situation.

Conclusion: This study indicates that better understanding of the perceptions of the rural Nepali is crucial in advocating for sustainable and culturally-sensitive delivery of healthcare.

Key words: Rural Nepal, Healthcare Services, Care-Seeking Behaviors, Telehealth.

Tweetable Abstract: Rural Nepali's care-seeking behavior, rooted in naturalistic lifestyle and community-focus; however, contextual considerations oblige them to make choices between Modern and Belief-based medicine.

Background

Nepal, a country flanked by China and India, remains one of the poorest countries in the world. Recently, Nepal's economic development has been affected by the 2015 earthquakes and ongoing political instability [1]. Despite the country's economic struggles, Nepal's health and population ministry has the mandate to provide quality, universally accessible primary healthcare [2] and sanitary living conditions to its people [3]. To achieve these objectives, Nepal is heavily reliant on aid from foreign organizations, which often have their own priorities that can have variable alignment with the ministry's healthcare vision [4-5]. Until recently, the majority of Nepal's population were isolated from modern healthcare services and also many primary care initiatives did not consider the cultural context and the strong hold of traditional medicine, especially for the Nepali living in rural and isolated, mountainous regions. In these rural villages, the health outposts are the visible manifestation of primary healthcare, which are staffed, albeit inconsistently, by lay people from the village, employed by the federal government. The outposts mainly focuses on health promotion through education[6], yet they rarely offer curative services due to a lack of medical supplies and expertise [7]. Moreover, rural villagers often prefer to consult primarily with traditional healers for what they perceive to be minor issues because they are more accessible and this tradition is more aligned with their cultural beliefs and practices [8-10]. Knowing that Nepal is currently undergoing healthcare reform, it would be timely to explore perceptions of health and care-seeking behaviors among patients living in high-altitude villages in rural Nepal, which is the purpose of this qualitative, descriptive study. To our knowledge, there is limited information available on such perceptions, inadvertently silencing the voice and preferences of the rural Nepalese people for consideration in future planning and policy of healthcare services.

Methods

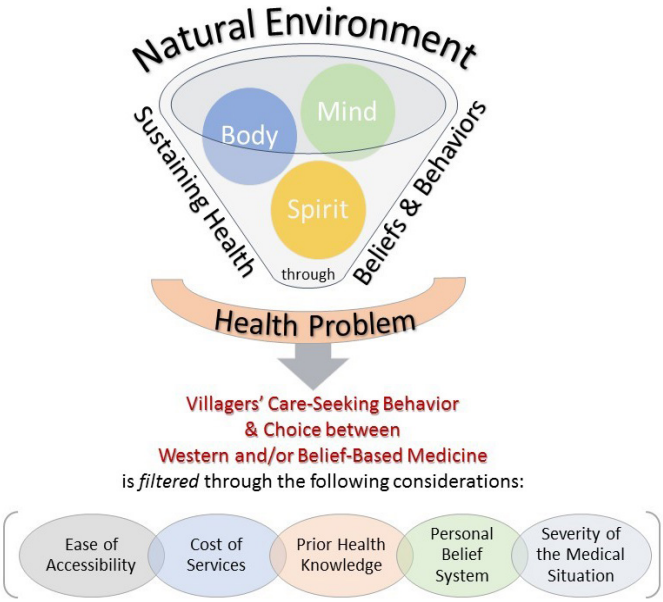
The villages, Sermathan (Village-1 or V1) and Namo Buddha (Village-2 or V2), both located in the Himalayan hills. V1, with 85 inhabitants, is situated at 8,200 feet above sea level and approximately 500 kilometers from Kathmandu, Nepal's capital city, and is solely accessible via a 6-hour vertical trek over hazardous roads. V1 has no health outpost; however, there is one in the region,

staffed by a healthcare worker. In contrast, V2 with its 300 inhabitants, is located at 5,702 feet above sea level and 80 kilometers from Kathmandu. This village is more exposed to urbanization and has one health outpost staffed by a foreign-trained, full-time physician.

After receiving ethical approval from the McGill University Internal Review Board in Montreal, Canada in 2014, a purposive sample of 17 participants was recruited; consisting of 7 villagers-from V1 and 10 from V2. Participants who used the service of the health outpost in the previous year were approached by the local health provider, who lives in the village, to participate in the study. If villagers were interested to participate, contact information was forwarded to a translator who was fluent in both Nepali and Tibetan. The study purpose was explained to the participants, their consent was obtained and individual semi-structured in-person interviews were scheduled. Table 1 provides the questions that composed the interview guide. An inductive approach described by Elo and Kyngäs [11] was used for data analysis. Each transcript was supplemented with field notes and a process of open coding was used to assigned captions to as many segments of the transcripts as necessary to describe all aspects of the data. The codes were organized into categories and themes that captured similar concepts, from which descriptive statements were formed and supported by quotes from the transcripts. This process was repeated until a consensus was reached between two of the researchers. Appropriate steps were taken to enhance the trustworthiness of the study. Credibility was established through a process of member checking. To address confirmability, dependability and transferability, the researcher wrote reflexive notes immediately after each interview, documented personal feelings, insights, possible biases and preconceptions, and ascribed to a detailed description of the research methods, participants, and settings.

Results

Of the 7 participants in V1, which were represented equally in age, the majority (n= 5) were female farmers that were either illiterate or with less than 5 years of formal schooling. Of the 10 participants in V2, the majority (n=6) were below 45 years of age, primarily male farmers. The majority (n=7) were either illiterate or with less than 5 years of formal schooling. In V1, 57% of participants were married, while in V2, 70% were married. Table 2 presents the sociodemographic information. Study findings revealed four interrelated pillars, visualized in Figure 1, that describe the health perceptions and care-seeking behaviors of participants: Sustaining Health through Personal Health Beliefs and Behaviors, The Desire for a Pure, Natural Environment, The Availability of Health Service Options, and The Use of Filters in Making Healthcare Decisions. Consistently, people expressed the belief that they hold expertise in sustaining health due to their naturalistic lifestyle and community-focus developed within the context of a unique culture and environment. When facing a health problem, villagers seek treatment from available offerings; this care-seeking behavior and the eventual choice between Modern and Belief-based medicine is filtered through a number of considerations: the ease of its accessibility, the cost of services, their prior knowledge related to the illness, their belief system, and the severity of the medical situation. To complicate things further, people are confronted with the contextual reality of the variable quality of proximal services and the inconsistency of their availability due to the influence of domestic and foreign actors.



Sustaining Health Through Personal Health Beliefs and Behaviors

The Buddhist philosophy has a system of health beliefs and expected behaviors surrounding the understanding of illness, its treatment, and appropriate intervention. Within this paradigm, the rural Nepali in both villages valued a healthy body, mind and spirit, as these are, in their opinion, intertwined concepts. Disjointed elements of this philosophy were expressed by villagers, although collectively, they seemed to present a holistic, societal vision of health and how to sustain it. According to villagers, positive thinking, having a healthy mind and stress reduction have positive influences on one's body, leading to less pressure on bodily systems. Participant 8 expressed it as follows, *"your mind is ruling your body"*. A healthy body is seen as a state in which one's body is free of pain and diseases that can be promoted, in their opinion, through eating a nutritious, vegetarian diet. Vegetarianism, commonly seen in Buddhist practice, was linked to a love for animals and a compassion for the land. The Nepali value balance and moderation, in which it is believed that extremes, such as too much or too little food can be unhealthy. Also, regular physical activity due to their daily work, the need to walk up and down steep terrain, and leisure activities such as daily walks were deemed to promote health. In contrast, drinking and smoking were considered to be habits that are harmful to one's health; alcohol was noted to breed aggression, while tobacco was seen as a major disease-causing agent linked to tuberculosis. An additional feature of these villagers is their non-individualistic lifestyle, which results in a strong sense of community, providing support in times of despair and makes them more resilient when dealing with health crises. Villagers would often relax and converse over tea and shared communal meals. Overall, these health beliefs and behaviors cannot be divorced from their desire for a pure, natural environment.

The Desire for a Pure, Natural Environment

It seems that a universal value of the Nepali stemming from Bud-

dhist philosophy is that health can be promoted via an environment that is as pure and natural as possible. Consistent with this belief, the villagers expressed the idea that living in higher altitudes, farther away from Kathmandu's pollution, made them healthier than their urban counterparts. Many villagers expressed concern regarding the use of chemical fertilizers and pesticides, used in the city, which they link to disease; preferring to engage in organic, sustenance farming to avoid these substances. Participant 4 stated, *"we use compost matter here (to produce) very organic food, but down there in Kathmandu the food is all mixed up with chemicals"*. She continues, *"here it takes 10 days to grow spinach, but in Kathmandu, it only takes a single day to grow a leaf of spinach"*. Thus, according to an elderly participant (P6), the older age group are stronger than future generations as they were not exposed to chemical fertilizers and pesticides in their food. In addition, villagers also value the importance of good sanitation to avoid food and water contamination. The participants in both villages explained that the likelihood prevalence of illness is reduced when they are 'clean'. For example, participant 4 said, *"cleaning and looking good has (always) been a culture (for us), and even when we have a buffalo shed outside, we clean it every day"*. In this same vein, various sanitation initiatives have been proposed by the Nepali government to ensure adequate sewage drainage and a ban on open defecation. By the end of 2017, each home was required to have a designated toileting area that drained away from the nearest water source or other farmers' fields. To improve general hygiene, people have incorporated a washing room in their homes. Overall, due to the progressive realization of the governmental sanitation program, many villagers reported a decrease in gastritis, dysentery, and other gastrointestinal complaints. A remaining concern however is the lack of access to clean drinking water in V2, the more urbanized village. According to participants 10 and 12, poor villagers must walk two hours, carrying water on their heads, with the risk of finding unsanitary conditions like dead mice floating in the water. Some villages have access to a well; however, for both options, the water needs appropriate filtration to remove bacteria and parasites, which can be an issue for people with limited means. Access to safe, clean drinking water can become even more of a concern during the dry season. On the other hand, the winter months, or the rainy season, brings its own challenges; from a health perspective, participants reported cold and flus from working outdoors without appropriate clothing and from a logistical perspective, roads can become inaccessible which can complicate supply transportation and evacuation of the sick.

The Availability of Health Service Options

Healthcare services can be categorized into Belief-based medicine and Modern medicine, emanating from local health outposts, temporary health camps or projects governed by local or international NGOs, or the regional hospital in Kathmandu. With regard to Belief-based medicine, participants in V1 spoke about Shamanism and in V2, there was a focus on Tibetan, Buddhist medicine.

In Shamanism, a shaman or lama uses ritual practices to offer spiritual healing as described by participant 5 when reporting on advice he received from a shaman, *"your heart is (tainted by) bad forces, you should take a rooster to a sacred location and sacrifice it"*. Despite variable conviction of its efficacy those that use shamanism have confidence in the shaman and believe they can be cured through these practices.On the other hand, Tibetan medicine consists of the use of natural materials as reported by participant 12, *"I like Tibetan medicine more than Western medicine as it is made of herbs…Western medicine is make of chemicals, so this is not good"*.

The provision of Modern medicine can take various forms. At the most proximal level, villagers across a given geographical region have access to health outposts, which are staffed primarily by health aides or other minimally-trained community health workers often lacking expertise as mentioned by participant 5, *"one of the healthcare workers had to go to a patient with a really big cut on his fingers. And (the worker) was terrified just looking at it…they have some knowledge, but no practical (experience), they study, they pass, but they actually are incapable"*. While used by villagers as a convenient, limited first-line treatment, these facilities fail to provide consistent service. Often times the villagers see these services as lacking due to shortages of staff and equipment which allows them to only address non-critical conditions. Participant 5 explained, *"healthcare workers have the medication but don't have the education…their capacity is to give painkillers like Paracetamol, but nothing else…they don't even know what (medication) they have (in their health outpost)"*. Long walking distances, unreliable opening hours, and the unavailability of home visit by the healthcare worker due to weather conditions are common inconveniences associated with outposts. Villagers also have access to temporary health camps or projects which provide aid and are usually set-up for specific reasons such as cataract screening or health education. Generally, these measures are perceived as 'band-aid solutions' and are viewed skeptically by villagers due to their inability to make lasting, meaningful change. As stated by participant 14, *"Health(care) can be given anywhere…but in each place, before you go to help them, you must learn about the area"*. While the majority of participants were grateful, participant 3 suggested, *"(If building a) health post is your project, then you come to us…the lamas, the elders, the politicians, the social workers, mothers and young people gather to discuss the topic. We ask, 'Why are you coming here?' and 'How long will you run your project?'…We make a contract, local people and NGOs. Because they want us to stand on our feet, not their feet."*

Villagers emphasized the need for collaboration with local leadership to ensure the appropriateness and sustainability of interventions. As a last and farthest option, villagers have access to the hospital in Kathmandu, where an array of specialized, Modern services exist.

The Use of Filters in Making Healthcare Decisions

When rural Nepali are confronted with an illness, they decide between healthcare options at their disposal. Overall, participants reported filtering decisions through the following five considerations: the ease of its accessibility, the cost of services, their prior knowledge related to the illness, their belief system, and the severity of the medical situation. In terms of ease of accessibility, transportation is an important hurdle, as indicated by V2 villagers who reported the need to drive 3.5 hours over rugged terrain to get to the hospital in Kathmandu. The use of mobile phones has improved access for very remote villages, to request home visits from local 'motorcycle doctors' (Who are actually minimally-trained healthcare workers); however, services can easily be foiled by unco-

operative weather and poor road conditions, as explained by participant 7, *"when we need to go down in an emergency case…people need to be carried…(requiring sometimes up to) 8 people (taking turns)"*. On top of issues of availability, the cost of transportation is still an impediment as explained by participant 1, villagers are expected to *"pay according to the distance that (the healthcare worker) must travel"*. While certain medication and treatment is covered by the Nepali government, those that are not can cause represent a substantial financial burden. This is explained by participant 16 and reinforced by participant 11, *"people here are illiterate and do not have financial support and cannot go to the hospital for check-ups"*. What's more, the poor often have to go to extremes to get healthcare, as explained by participant 15, *"rich people can go to Kathmandu, but poor people cannot afford it…(for) the money, they can take (out) a loan"*. Since the cost of travel can be a deterrent, often villagers seek medical attention from local shaman or lamas as a first-line resource and cheaper alternative. Furthermore, consultation with shaman or lamas is given priority as it fits within their belief system and is perceived to be a more 'natural'. Participant 5 recounted an incident regarding a villager that had an eye infection and needed antibiotics, *"the person would not seek the modern medical services until a shaman or Tibetan doctor reconciled the spiritual aspect and had a second opinion on the required treatments"*. Sometimes these professional opinions differ leaving villagers confused about how to proceed. For example, Participant 8, was diagnosed with hypertension by a Western physician, and after taking anti-hypertensive for 6 months, he did not feel better, and thought that perhaps his hypertension was caused by 'wind inside his stomach'. He decided to see the Tibetan doctor who assured him that he did not have high blood pressure, something that was diagnosed manually 'working on the nerves'. *"Do I have hypertension or not? I don't know who to believe…I am in between…I took the medication from the Western doctor for 6 months but still had the same problem… the Tibetan doctor gave me some medicine for 1 month and I was fine"*. As you can see from participant 8's narrative, his first reflex was to turn to Modern medicine, which is believed to be effective and to act quickly; however, over the months he felt that his health condition was not improving, and not understanding that hypertension is a chronic condition, he returned to Tibetan medicine. The lack of medical knowledge is also illustrated by participant 13's belief that tuberculosis, a relatively common ailment in Nepal, was due to smoking and drinking, not bacteria. Villager's knowledge often seemed intuitive, as described by participant 7, he *"learned all information about morning walks and green vegetables from (his) heart"*, or based on life experiences and observations, as explained by participant 6, *"Nobody told her (that smoking was bad). She just had this idea…there was a time that people used to smoke (through) these bamboos… after she saw the inner part of the bamboo was getting black. Then she realized this is happening inside (of her) also."*

Confusing advice, compounded by a general lack of medical knowledge often resulted in villagers following their 'feelings' about a problem rather than making an informed choice between healthcare services. The perceived severity and urgent nature of that problem played a role in their decision regarding the pursuit of Modern versus Belief-based medicine; however, there is the general understanding among villagers that if their condition is serious, they would be better off going to a Western doctor. As explained by participant 17, *"(we) need more health education because health is the most important thing"*; this knowledge and awareness would support villagers in making the distinction between what is 'serious' versus 'not serious' and what causes certain health problems. Largely, the majority of participants believed, as expressed by participant 2, *"that (the healthcare system) is much better than what (it was) in the past, but there needs to be a lot of improvement"*, in other words, that more proximal services would be appreciated, and as suggested by participant 8, government and NGOs should work together in making this a reality.

Discussion

The distribution of quality healthcare remains a major concern in Nepal resulting in important inequality of services between urban-rural populations and as such, according to our findings, rural Nepali's care-seeking behaviors were guided by the weight they attributed to contextual and personal considerations of accessibility, knowledge, severity, cost and belief. Flowing from the findings, three main points warrant discussion: (1) the lack of qualified healthcare workers in rural areas, (2) the need for increased awareness and illness-related knowledge amongst villagers, and (3) the necessity for sustainable collaboration between NGOs, government and local people.

The shortage of doctors in rural areas can mainly be attributed to migration from poor countries to the west or the infamous 'brain drain' motivated by financial incentives and improved living conditions elsewhere [12]. Additionally, Butterworth et al. [13]has identified additional issues critical to the retention of rural, primary care physicians: low career/promotion prospects, little status/recognition, reduced access to quality schools for their children, and lack of continuing medical education [14]. In addition to these personal and career factors, physicians living in rural regions face logistical impediments such as the lack of internet, telemedicine facilities, and the support of a regional hospital network. Due to the lack of qualified practitioners in these rural regions, the system is reliant on what has become the backbone of the rural Nepali healthcare system, that is, minimally-trained healthcare workers [15-16]. Yet even in this area, there is a shortfall, with 40% of current outposts being 'unmanned' at any given time [17]. It has also been suggested in the literature [18] that healthcare workers are often tempted to absence themselves from their post whenever possible, mainly due to the professional and social isolation they experience. This lack of training and accountability, consistent with our findings, contributes to the poor performance of these providers, resulting in inadequate preventive and curative health care services in rural health outposts. In fact, as suggested by our participants and supported by the literature [19], it is not so much the lack of theoretical training, but rather the lack of its practical application and minimal clinical exposure which contributes to the deficiency in practical skills. The few clinical sites used for training are often flooded by students offering little opportunity for practice and when sent to rural setting for training, students face health facilities where there are either few patients or inadequate supervision, thus little opportunity for practical exposure. Moreover, when eventually employed in health outposts with little patient volume, these workers lose acquired skills and competencies over time. In addition, within the traditional primary health service pyramid,

where health outposts are the last link in the chain, the healthcare workers are at the bottom of the pyramid and in a position of dependence on the support of more-qualified practitioners, such as nurses, in the upper echelons. Within this model of dependence, when communication or the flow of expertise is sub-optimal and there is a chronic lack of material resources, the quality of proximal services suffers. It is the opinion of the researchers that a new and more effective structure needs to be envisioned and deployed for the professional support of this mass of minimally-qualified healthcare workers. With the progressive implementation of telemedicine services in Nepal [20], today this telehealth infrastructure can also be used to strengthen the relationship between nurses in the primary health centers and the local healthcare workers in the villages, thus creating opportunities for mentoring and palliating shortcomings in training, skills and expertise of local staff. In addition, this technology-enabled mechanism can contribute to improving the awareness and illness-related knowledge of the local population through nurse-led health promotion activities and campaigns that can be delivered 'at a distance'. The sustainability of this approach focuses on building local capacity amongst villagers and healthcare workers, thereby enabling more empowered rural communities where the impact will linger for longer [21-22]. A focus on sustainability and empowerment is commended by local communities who want more involvement in the planning and development of culturally-sensitive services/projects proposed by NGOs [23], as evidenced by the opinions of the majority of our participants. Most participants appear to be far less eager for short-term, donation-funded, non-sustainable aid projects providing interim solutions; however, they voiced a desire to see the development of sustainable collaborations between NGOs, government, and local people that would serve to strengthen proximal services and infrastructure within their villages. As such, future healthcare policy in Nepal should a focus, in collaboration with identified stakeholders, on strengthening the peripheral health system and ensuring equitable, accessible healthcare services.

Limitations

Cross-language qualitative research occurs when a language barrier is present between researchers and participants. In our study, the language barrier was mediated by a local interpreter, and despite his training on how to facilitate interviews, using an interpreter to explore participants' ideas and feelings at a deeper level, remains challenging when compared to direct, unilingual communication.

Conclusion

By fostering and supporting empowered communities, you create the conditions for villagers to make informed decisions regarding their pursuit of healthcare options, be they Modern and/or Belief-based medicine. In conclusion, this study indicates that our understanding of the perceptions of rural Nepali are crucial in advocating for sustainable and culturally-sensitive care and policy that is provided in a manner consistent with their preferences and desires.

Declarations

Ethics approval and consent to participate: Ethical approval was obtained by the McGill University Internal Review Board, under the number A00-B04-14A

Consent for publication

Not applicable

Availability of data and materials

The datasets generated and/or analyzed during the current study are not publicly available due to the need for confidentiality of transcripts but are available from the corresponding author on reasonable request.

Competing interests

The authors declare that they have no competing interests.

Authors' contributions

S.S., A.A., and N.P. made substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data. C.D. and S.D. were involved in drafting the manuscript and revising it critically for important intellectual content. All authors read and approved the final manuscript.

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Table 1: Semi-Structured Interview Guide

1. Could you please describe what contributes to good health?
- What do you feel are your strengths with regards to health?
- What are you currently doing in order to keep yourself healthy?
- Have you ever received any form of specific health education?
- Can you describe your personal and/or family health needs?
- Can you explain any personal initiatives you have taken to address these needs?

2. What are the challenges affecting the health of your community?
- How are these health needs addressed in the village?
- How do you think these challenges could potentially be eliminated?

3. Could you please describe how healthcare is delivered in your community?
- Do you have some ideas how the healthcare delivery could be improved?

4. Given your experiences, how would you describe the quality of the healthcare you have received?

5. What are your experiences with seeking healthcare services outside of your community?

6. What are your thoughts about people seeking (or not seeking) the help of shamans and alternative medicine for their health concerns?

Table 2: Participants' Socio-Demographic Characteristics

	Village	Age	Marital Status	Sex	Years living in village	Place of birth	Education	Occupation
P1	V1	46-60	Married	Female	20-30	Another Himalayan Village	<= 5 years of schooling	Farmer
P2	V1	61-70	Married	Female	31-60	Another Himalayan village	<= 5 years of schooling	Farmer
P3	V1	26-35	Single	Male	20-30	Outside Nepal	15 years	Tourism
P4	V1	36-45	Single	Female	10-19	Outside Nepal	<= 5 years of schooling	Farmer
P5	V1	46-60	Married	Male	20-30	Current village	<= 5 years of schooling	Government
P6	V1	70-80	Married	Female	31-60	Another Himalayan village	Illiterate	Farmer
P7	V1	18-25	Single	Female	Entire life	Current village	15 years	Teacher
P8	V2	18-25	Single	Male	<10	Another Himalayan village	5-10 years	Monk
P9	V2	70-80	Married	Male	Entire life	Current village	Illiterate	Farmer
P10	V2	26-35	Married	Female	Entire life	Current village	Illiterate	Farmer
P11	V2	46-60	Married	Female	31-60	Outside Nepal	<= 5 years of schooling	Farmer
P12	V2	18-25	Single	Male	<10	Another Himalayan village	<= 5 years of schooling	Monk
P13	V2	61-70	Married	Male	20-30	Current village	<= 5 years of schooling	Farmer
P14	V2	26-35	Single	Male	20-30	Outside Nepal	5-10 years	Teacher
P15	V2	36-45	Married	Male	Entire life	Current village	<= 5 years of schooling	Farmer
P16	V2	80+	Married	Female	20-30	Another Himalayan village	Illiterate	Farmer
P17	V2	36-45	Married	Male	Entire life	Current village	5-10 years	Tourism