Perception of medical health care practitioners and health care consumers towards traditional health care systems in western Ladakh, India

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Research

Abstract

Background: This study focussed on the perception of Medical Health Care Professionals (MHCPs) and Local Health Care Consumers (LHCCs) on traditional health-care systems (THCS) and collaboration of both traditional and modern health-care system in western Ladakh, India.

Methods: The study area was based on the distribution of three different socio-cultural groups in three valleys (Lower Indus, Suru and Wakha Chu) in western Ladakh. A detailed field investigation was undertaken for the perception, which involved semi-structured questionnaire survey of 30 MHCPs and 540 LHCCs, to document their opinion regarding integration of traditional and modern medicine.

Results: Although local communities comprehend health problems and solutions within their cultural frame of reference but now it has changed over the years. The majority of MHCPs and LHCCs were agreed on the collaboration of both the health care systems.

Conclusions: Of all the THCS the *Amchi* system seems to be the most scientific and therefore the most logical one to be integrated into the modern medicine system.

Keywords: Age class, *Amchi* system, *Akhons*, *Shamans* Lower Indus valley, Sowa-rigpa, Suru-valley

Background

India has its own traditional methods of healing in different regions that generally depend on local healers, their remedies and traditional medicine (TM) to treat different ailments (Pandey *et al.* 2013). Under health practices based on TM, plants, animals and mineral products and spiritual therapies are included (Teferi and Sundara, 2013). The current WHO strategy endorses the contribution of traditional healers in care, and the WHO's traditional and complementary medicine strategy 2014-2023 highlights traditional healers as a prospective solution to attaining universal health coverage (World Health Organization, 2013).

Ladakh is a newly developed union territory in the northern part of India bordering Pakistan and China. The area is known for its unique landforms with marginal farming systems. Sixty percent of the people in Ladakh are dependent on traditional health care system (Kala, 2005) as the majority of the inhabitants lives in remote areas where modern medical health facilities are not available due to inaccessibility, and lack of appropriate road infrastructure (Angmo *et al.* 2012). The most popular traditional system of medicine through traditional healers is *Amchis* followed by *Akhons* and *Shamans* (Angmo *et al.* 2022).. These traditional health care practitioners are not officially recognized and usually done under an unofficial capacity. It is dominated by an informal system, whereby traditional medical practitioners and patients enter into outcome-contingent contract. The village traditional resources (both cash and in-kind payments) are used to finance traditional health care practitioners. The unique and holistic approaches as well as its accessibility and affordability makes it a best alternative health care system available for the majority of the global population, especially those living in the rural areas of developing countries. The *Amchi* system of medical treatment is usually practiced in Ladakh, Sikkim and Arunachal Pradesh in India (Namgyal and Phuntsog, 1990). Before independence it was the only health care system, but much later allopathic medicine was introduced (Chaurasia *et al.* 2007). In spite of advancement in modern medicine people still rely on traditional healing practice of herbal based medicine for health care (Lamo *et al.* 2019). Currently there are dualistic health care systems in Ladakh; the traditional and modern system run simultaneously side by side. The *Amchi* system which was officially recognized in 2010 is the system which was not referred here. The *Amchi* system here refers to those who had got their knowledge from their ancestors through hereditary system. The query arises is that with a vertically integrated system in the health care sector, with traditional and modern systems, is it possible that both coexists and constantly supports each other as well as get support from the LHCCs and under which conditions is that possible? The problem persist here is that even though maximum inhabitants of Ladakh relies on traditional medicine and on local herbal plants to fulfill their primary health care needs, traditional medical practice has not yet officially recognized especially with reference to the above systems. No efforts has been made to collaborate Traditional Medicine with Modern medical health care system and due to this there is no proper referral system exists between these two and the absence of this adversely affects those patients who refer themselves from one system to the other. The public health policy formulators have concern about traditional medicine safety, efficacy and quality. Some MHCPs have express often candid incredulity about the alleged benefits of TM. The present study aims to report on the attitudes and practices of allopathic doctors regarding integrations of complementary and alternative medicine in the contemporary health-care delivery system, with special emphasis on herbal medicine. It also investigates the level of acceptance and knowledge regarding herbal medicine by doctors as well as health consumers.

Materials and Methods

Study Area

Western Ladakh was erstwhile the district of Jammu and Kashmir before 2019. The area falls under the rain shadow of the Trans-Himalaya, which is known for its unique biodiversity, culture and tribal population. The region is divided into Leh and Kargil district. The local population based on the number is close to 275 thousand people (UIDAI, 2020) most of those live at the expense of what they manage to grow in their gardens and fields. The entire Ladakh is categorized into five valleys *viz*., Indus, Nubra, Changthang, Suru and Zanskar (Kaul, 1997) and the present paper deals with Lower Indus, Suru and Wakha Chu valley of western Ladakh. The present study was carried out in three valleys of western Ladakh *viz*., the Lower Indus, Suru and Wakha Chu valley (Fig. 1). The altitudinal gradient ranges between 2600 to 4500 masl, with harsh climatic condition where temperature varies between -40^0 C to $+40^0$ C. Some of the villages in the area are very remote and does not get access to the road and other amenities.

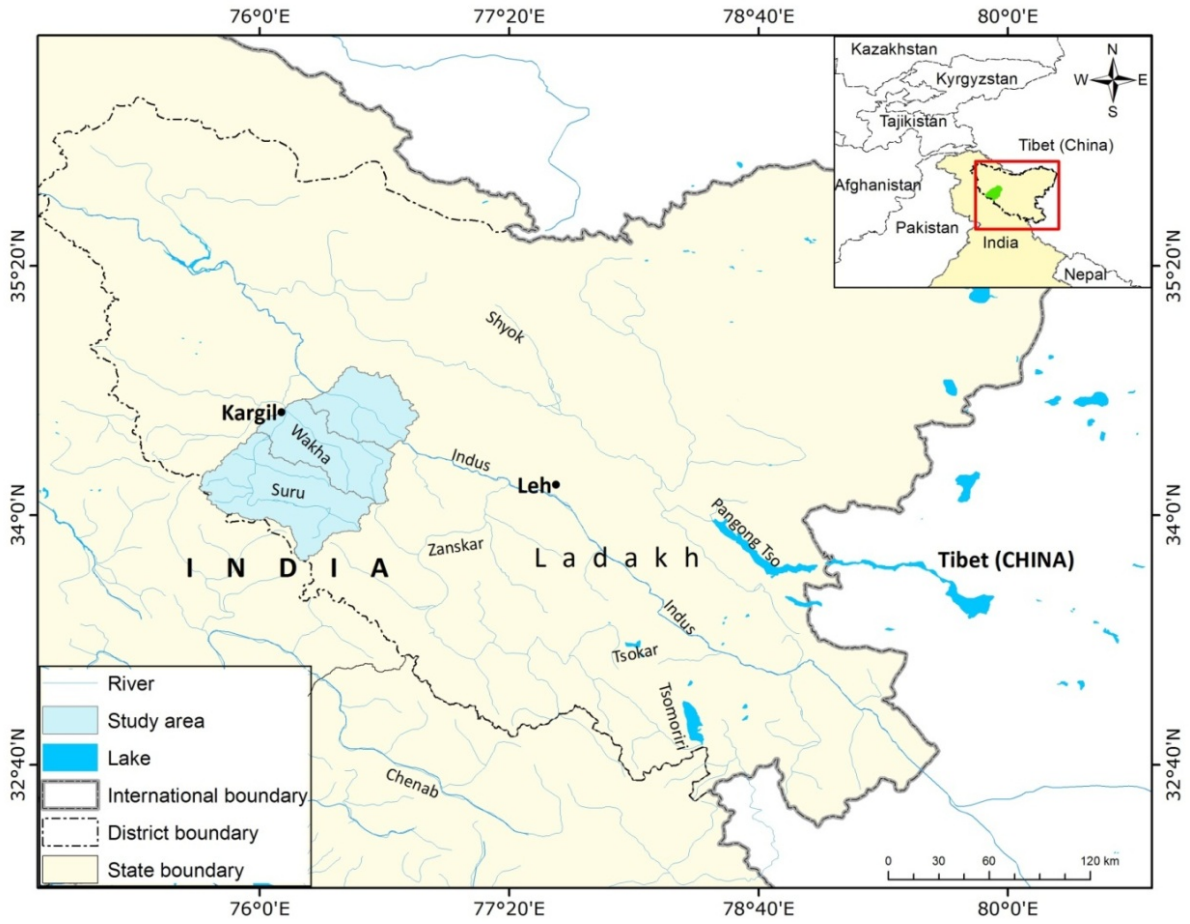

Figure 1. Map of western Ladakh showing the Study area.

Sampling, Data collection and analysis

A total of 30 MHCPs, working in the Kargil district hospital, in primary health centers and in private clinics were interviewed using structured self-administered questionnaires. Health consumers were selected for the interviews based on stratified random sampling. Equal numbers of respondents i.e. 180 individuals from each valley (total 540 individuals) were interviewed after stratifying them into three age groups: 18-30 years (Age class I), 31-50 years (Age class II), and above 50 years (Age class III). All participants provided oral prior informed consent before the interviews.

The data was collected through semi-structured questionnaire, which was prepared intuitively after several discussions with experienced MHCP working in the district hospital. The objective of the research was first described to the respondents prior to starting the questionnaire. The questions fell into three categories: the attitude of MHCP towards the acceptance of traditional medicine; the opinion of MHCP regarding the integration of traditional and modern medicine; and inquires the opinion of LHCCs on acceptance and integration of both health-care systems.

The questionnaires were interviewer-administered and contained details regarding awareness, collaboration, and acceptance, duration of employment at the hospital, years of practicing medicine and level of qualification. Acceptance was assessed using questions that evaluated beliefs, feelings and actions regarding THCP.

We hypothesized that all participants would give equal importance to all four health-care systems in all three valleys. Chi square goodness of fit test was used to see whether there is any significant difference in expected and observed consultancy with an assumption that expected consultancy is equal for all the health-care systems. To see the preference of health-care systems in three age classes (Age class I, Age class II and Age class III), similar chi square tests were performed for all three valleys.

Results

Perception of MHCPs towards THCS

The perception of MHCPs towards THCS is given in Table 1. Eighty percent MHCPs accepted that the THCS is an important health-care facility in the society and believed that some diseases need traditional healers, while 20%rejected it. In response to a question asked on the integration of THCS into the national health-care policy, most of the MHCPs were in favor. Sixty percent preferred integrated health-care system, while the remaining was not in favor. Fifty percent of MHCP wanted traditional healers to be legalized and 33% totally rejected this idea, while the remaining 17% respondents were not sure. Fifty-four percent of MHCP accepted that a patient requested the need of a traditional healer and demanded discharge for the same reason. The remaining 43% participants had never experienced this situation and 3% were uncertain.

Most of the physicians (87%) agreed herbal medicines were beneficial to health. Forty-seven physicians agreed that they suggested referrals to and received referrals from THCPs in the past and 47% were also able to identify the herbs and herbal products in the treatment of common diseases, while 53% had no plant knowledge. Only 16% of the MHCP confirmed that they knew of patients who were cured completely after visiting traditional healers, while a majority (67%) denied and 16% were uncertain on this query. Most of the respondents (77%) asked their patients regarding treatments taken by traditional healers in the past in addition to other medical history, while 23% did not ask this question. In response to a question asked on the integration of THCS into the national health-care policy, most of the MHCPs were in the favor, 60% preferred integrated health-care systems, while the remaining 40% were not favor. Seventy-three percent confirmed that THCS use was declining, while 17 % indicated that this system was still thriving and 10 % were not sure.

Table 1. Perception of MHCPs towards THCS

Questions	**Response (#)**		
	Yes	**No**	**Uncertain**
Is THS an important health-care facility in the society?	24	6	0
Do you believe that some diseases need traditional healers?	24	6	0
Because you are one of the multi-disciplinary team, can you accept a traditional healer in this team?	18	12	0
Do you want traditional healers to be legalized?	15	10	5
Did any patient ever ask for discharge to consult a THP?	16	13	1
Will you suggest referrals to and from THPs?	14	16	0
Do you know of any person who was completely cured by a traditional healer?	5	20	5
Have you ever used herbs?	14	16	0
Do you ask patients whether they opted for TM?	23	7	0
Can you work in collaboration with THPs?	18	12	0
Is THS fading away?	22	5	3

Perception of LHCCs towards THCS

Through stratified random sampling method, 180 individuals consisting of 90 men and 90 women by from 3 valleys each (total 540 LHCCs) across different age classes (as described earlier) were interviewed. The educational levels of the LHCCs who participated in the study (Fig. 2) was in the order: illiterate (375)>senior secondary (125)>primary studies (29)>graduation level (11).

Table 2 shows the perception of LHCCs towards THCS. It was observed that 96% of the LHCCs were aware of other health care systems. Most of the respondents (84 %) had visited the THCPs for different reasons, while 16% have not visited THCPs. Ninety-one percent showed their agreement for the need THCPs in future, while 9% rejected it. Forty-nine percent of LHCCs were in favor of collaboration between THCPs and MHCPs, whereas 22% respondents were against it and 13% were not sure. In response to a question asked on the legalization of THCS, 67% of LHCCs wanted traditional healers to be legalized and 24% totally rejected this idea, while the remaining 9% were unsure. Thirty-five percent respondents were uncertain regarding their preference of traditional healers to medical doctors, whereas the remaining 65% preferred MHCP to THCP.

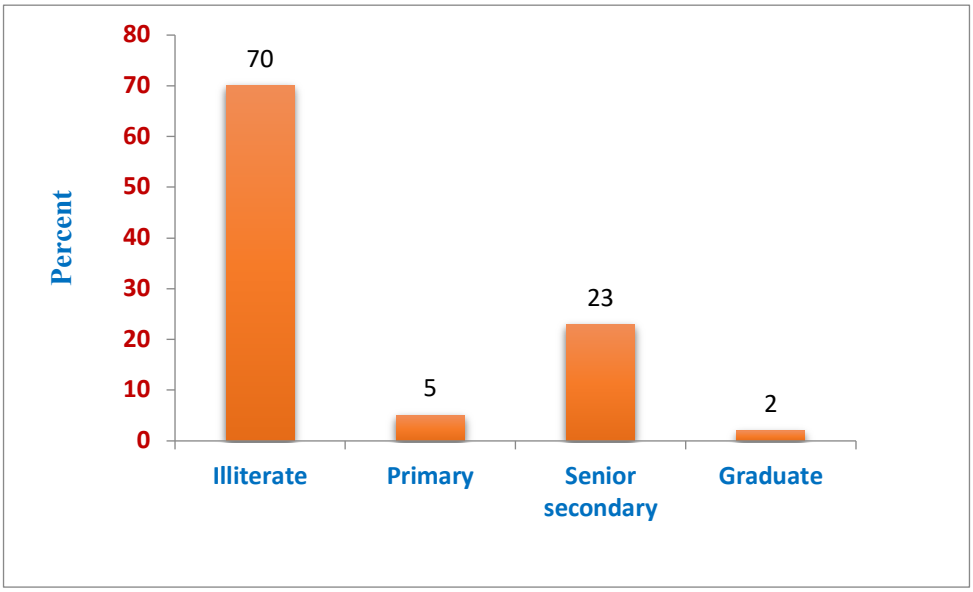

Figure 2. Educational levels of LHCCs

Table 2. Perception of LHCCs towards THCS

Questions	Response		
	Yes	No	Uncertain
Do you know about the other health- care systems?	520	20	0
Have you ever visited a THCP for treatment?	451	89	0
Do you think you need THCPs in the future?	491	49	0
What do you think about the collaboration between THCPs and MHCPs?	350	121	69
Do you think it should be legalized?	365	128	47
would you prefer MHCPs to THCPs	350	0	190

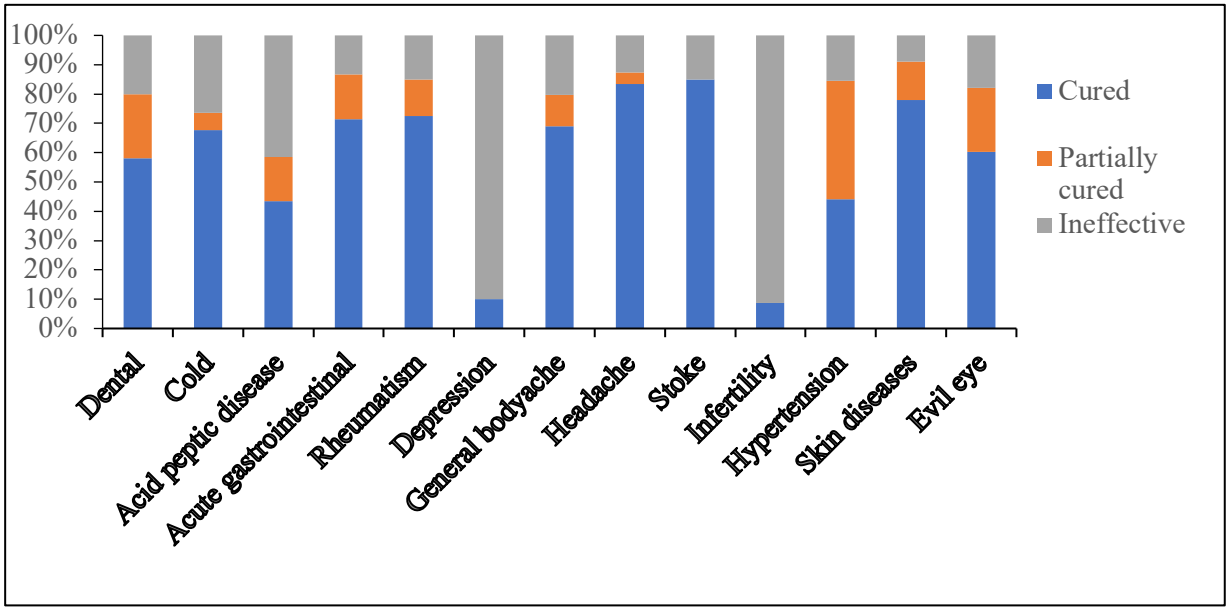

Figure 3. Number of people cured, partially cured or ineffective.

As shown in Table 3, there were significant differences between the expected and observed consultancies to different health-care systems in all three valleys, (Valley I: X^2- 352.8, df-4 and $p < 0.05$; Valley II: X^2- 141.72, df- 4 and $p < 0.05$; Valley III: X^2- 163.11, df- 4 and $p < 0.05$). Thus our hypothesis that people gave equal importance to all the health-care systems was proven wrong. The result show that the people in all three valleys gave more importance to MHCS than THCS. The number of *Amchis* was found to be more or less the same as the expected number, except in Valley III, where observed consultation of *Amchis* was almost twice as high as the expected value.

Table 3. Preference of health-care systems in different age-class of LHCCs

Valley	Age class	Chi square	df	Significance level
Suru	18-30	49.9	4	$P < 0.01$
	31-50	54.0	4	$P < 0.01$
	>50	40.5	4	$P < 0.01$
Wakha-chu	18-30	40.5	4	$P < 0.01$
	31-50	67.5	4	$P < 0.01$
	>50	62.5	4	$P < 0.01$
Lower Indus	18-30	106.2	4	$P < 0.01$
	31-50	149.1	4	$P < 0.01$
	>50	128.0	4	$P < 0.01$

The ranking of different health-care systems according to the observed consultation by members of different age classes of the three valleys is shown in Table 4. The 5 health-care systems included in the ranking were Modern (i.e. Doctors), *Amchis*, *Shamans*, *Akhons* and self. The modern health-care system was preferred in all age classes in all the three valleys. In all age classes of the Suru Valley, *Amchis* were given almost equal importance to doctors, and these were consulted almost to the extent, while the other three health-care systems were consulted much less. In Wakha-chu valley, both *Amchis* and *Akhon* were consulted as expected by all three-age classes, while all age classes avoided *shamanist* and self-health care systems. In the Lower Indus Valley, *Amchis* and doctors were given almost equal importance by all age classes. The results show that observed consultation of *Amchis* is much higher than the expected value. *Akhon* consultation was avoided in all age classes except in age class I they were consulted more or less as expected.

Figure 4. Ranking of different health-care systems across age classes in different valleys.

Discussion

It was found that most of the MHCPs were aware of the THCS and also regarded THCS as an important health-care facility. But out of 30 MHCPs interviewed, 67% accepted that they were not aware of any effectiveness of TM and never knew any case where somebody was completely cured by traditional healers. The protection and efficacy of information on TM were not ample to meet the criteria requisite to support its global use (Abebe and Ayehu, 1993; Alrawi *et al.* 2011)). Most physicians (87%) agreed that herbal medicines were beneficial to health, while 47% reported that they had used THCS in the past and were also able to identify the herbs and herbal products in the treatment of common diseases such as stomachache, toothache and cold. Fifty-seven medicinal plant species found in Ladakh region are commonly used against stomach related problems by *Amchis* (Ballabh, 2002). However; only

30% had ever advised their patients to consult an *Amchi* or an *Akhon* because their treatments were simply placebo effects.

In our study, a majority of MHCPs indicated that they accepted herbal medicines as a viable health-care option, as they were aware of traditional medicinal practices, such as Ayurvedic medicine, and clinical trials that supported safety and efficacy of herbal remedies (Lambert, 2012; Hardiman, 2009; Payyappallimana and Hariramamurthi, 2012; Attewell, 2005), however, the primary reason for rejection according to them was due to insufficient scientific information available from clinical trials to support the safety and efficacy of medicinal herbs. Making traditional knowledge of herbs and healing accessible for future generations require improved documentation and scientific research on health system to dismiss the fake and imperialistic concept that the traditional medicine system is backward, showing confirmation of its safety, efficiency and quality

However, a majority of MHCPs were not in favor of traditional healers for the following reasons:

1. Most of the THCPs claim that they can cure all diseases, while in reality patients go to MHCPs after not being cured by THCPs,
2. Hygienic conditions are very poor at THCPs clinics and homes,
3. Lack of proper standard protocol of diagnosis and treatments,
4. Unscientific approach and insufficient information regarding the constituents and expiration dates of TM,
5. There are some undefined medicines in THCS, which may affect kidneys and other vital organs. We are witnessed I have seen people going into acute renal failure after being treated by THCPs.
6. THCPs cannot diagnose the diseases properly which may also lead to patients' death.

On the other hand, during interviews it was ruled out in the present study that LHCCs did not feel any need for traditional healers while hospitalized. A significant difference was found between the expected and observed consultancies to different health-care systems for all three valleys. That is, the hypothesis that people give equal importance to all the health-care systems in unlikely to be true. The result shows that people in all three valleys give more importance to the MHCS than THCS. The number of *Amchis* was found to be more or less the same as the expected number, except in Lower Indus Valley, where observed consultation of *Amchis* was almost twice as much as the expected value. Most of the LHCCs believed that the traditional healers should be legalized and agreed that traditional health-care practitioners must be included in the modern health-care system.

The overall findings of a recent study from Eritrea by Habtom (2018) suggested that from the responses of both traditional and modern medical practitioners, it was observed that usually there is goodwill to ascertain optimistic relationships and collaborations between both practitioners. Although, there are substantial distinctions not just in their way of thinking but also in their perceptions of man and health and concluded that both traditional and modern health care systems were more complementary than competitive. The findings of the present study that the MHCPs showed some admiration and gratitude towards THCSs and most of them along with LHCCs (around 60%) were ready for the collaboration between MHCPs and THCSs, as it would generate a mutual benefit to each system, and simultaneously both could exchange their skills also. A recent review by Nguyen *et al.* (2019) indicated that the inter professional communication within and between conventional and complementary health care practitioners is impacted by interconnected factors. A varied choice of inventiveness that facilitate inter-professional erudition and collaboration are mandatory to facilitate inter professional communication and assist conquer medical dominance and inter professional cultural divides. Even though good quality medical amenities are available, most of the LHCCs of rural areas of Ladakh still depend on THCSs. The collaboration of both practitioners would be beneficial for the LHCCs as it would proffer an ample option of treatment to them which might facilitate in the upgrading of general health care information, improvement of the excellence of THCSs and most notably it possibly will bring the best possible treatment for the underserved rural populace of Ladakh at a reasonable cost.

Conclusion

The study explored the views of MHCPs and LHCCs on THCSs and found that with the consideration of insufficient Medical staff and facility in rural areas of Western Ladakh, people still depend on THCSs for the treatment of diseases. Of all the THCS, the *Amchi* system seems to be the most scientific and therefore the most logical one to be integrated into the modern medicine system. An effective way to conserve the system is to integrate *Amchi* System with the modern health-care system. This has been emphasized in the recent World Health Organization "Beijing Declaration", which advocates that the "communication between conventional and traditional medicine

providers should be strengthened and appropriate training programs are established for health professionals, medical students and relevant researchers". This will add new dimensions to the nation's system of health-care and also facilitates empowerment of patients by providing them with a choice of health-care systems and different options for treatments. The support from the Government for traditional healers and traditional medicines needs to be increased.

Declarations

Abbreviations: THCS: Traditional Health Care Services; TM: Traditional medicine; UV: Use Value; THCP: Traditional Health Care Practitioners; BTMS: Bachelor of Tibetan Medicine System

Ethics approval and consent to participate: Manuscripts reporting studies involving human participants (the need for approval was waived). The author is the native of the study area where the research was carried out and the questionnaire were answered by the healers with their own will and consent to help their own community.

Consent for publication: Not applicable

Availability of data and materials: Requests for data can be directed to the first author.

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Competing interests: The authors declare that they have no competing interests."

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