

# Traditional Medicine Usage: Knowledge And Practice Among Rural Tribals in Villages of Gadag Taluk, India

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## ABSTRACT

**Background:** Traditional medicine denotes the indigenous medical systems and practices that have evolved over extensive periods within particular cultural and communal contexts. The understanding and perspectives regarding traditional medicine are shaped by a confluence of historical, cultural, and social dimensions that inform the utilization and practices of traditional medicine. Historically, traditional medicine has been instrumental in addressing the healthcare requirements of populations globally. Its foundations are profoundly embedded in cultural convictions, practices, and the collective wisdom pertaining to the application of medicinal flora, fauna, and diverse therapeutic modalities. Traditional medicine frequently employs holistic methodologies, encompassing the physical, psychological, and spiritual dimensions of health and wellness. This research endeavor was undertaken to evaluate the understanding and application of traditional medicine among the Scheduled tribes (Valmiki Nayaka and Talawar) residing in the Gadag taluk.

**Objectives:** To Assess the Knowledge and Practices about traditional medicine usage among Rural Tribal's in Gadag.

**Methods:** A field-based cross-sectional study was conducted in the Hirehandigola and Chikkahandigola, Chikkoppa, and Hirekoppa villages of Gadag Taluk. A purposive sampling technique was adopted to choose the study participants. A semi-structured, closed-ended questionnaire was used to obtain the data from June to July 2023. Data were entered into Microsoft Excel, and results were expressed in frequency and percentages.

**Results:** Totally, 116 households were visited, and participants were interviewed. Out of that, almost all (98.73%) of them had good knowledge, and the majority (70.7%) used Ayurveda medicines. 11.2% used home remedies to seek treatment. 15.5% of respondents are influenced by their ancestors to use TM, and 43.1% report that TM has no side effects.

**Conclusion:** The majority of the respondents have good knowledge about traditional medicine usage. All will prepare traditional medicine for their health and well-being.

**Keywords:** Knowledge, Practice, Traditional Medicine, Ayurveda; Rural Area

## 1. INTRODUCTION

### History of traditional Indian medicine

One of the earliest medical sciences is traditional Indian medicine on the planet. The most popular school of ancient Indian medicine, Ayurveda, places a strong emphasis on holistic therapy, which takes the full person: body, mind, and spirit. It is founded on the idea that achieving physical, mental, and emotional wellness is possible for anyone. via peaceful harmony with nature. The Halaba culture, an early civilization in the Indus River Basin that had towns and well-developed handicrafts like cloth, pottery, and metal processing, existed as early as 2500 BC. The Aryans who controlled India during the Vedic period (about 1400–600 BC) established a Brahmanic-based Vedic civilization, which served as the model for early Indian philosophy and natural philosophy. The Rigveda, Samaveda, Yajurveda, and Atharvaveda are the four main collections of texts from the Vedic era that describe diverse types of knowledge, ideas, and legends (1).

In terms of population, India is the second-largest nation in the world. Over 705 tribal communities live in about 5000 villages throughout India, in various types of woods and vegetation. Orissa is home to 62 Scheduled Tribes, which collectively number over a million tribal members. As a result of years of expertise, they have a very strong understanding of plant resources. Understanding the close interaction between a person and the plants in his immediate environment has primarily been passed down to us through enduring tradition (2).

According to the World Health Organization (WHO), traditional medicine (TM) is "the totality of knowledge, skills, and practices based on theories, beliefs, and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of

health as well as in the prevention, diagnosis, improvement, or treatment of physical and mental illnesses." When one or more of the following criteria exist, traditional medicine (TM) is frequently one of the primary sources of healthcare in a nation: significant cultural and historical influences, a dearth of alternative medical treatments, or as a complementary therapy used in conjunction with other medical treatments (3).

The crucial function of traditional medicine in underdeveloped nations has also been acknowledged by the World Health Organization (WHO). WHO acknowledges that conventional systems will continue to play a significant role in serving very large populations, especially in rural areas. It would take a lot of time and money to provide contemporary medical care to every segment of the population, especially those in underdeveloped and rural areas. Treatment according to traditional medical systems is frequently less expensive because herbs and other traditional remedies are readily available and accessible locally (4).

Knowing what our ancestors knew: "Knowing what our ancestors knew and learning from nature" ought to be the guiding principle for the foreseeable future. Without any of the instruments we have today, our ancestors were able to discover a number of substances, including artemisinin, morphine, salicylic acid, reserpine, atropine, and tubocurarine, by using their own senses to observe nature. So, instead of using assumptions and synthesis, like our ancestors did, we ought to be able to discover new medicines and therapies through observation.

## 2. MATERIALS AND METHODS

### 2.1 Study setting

The study was conducted in Hirehandigola and Chikkahandigola rural villages of Gadag district in the Scheduled Tribal Areas. Data were obtained from June to July 2023.

**2.2 Study design:** A field-based cross-sectional study was conducted using a pre-tested, semi-structured questionnaire.

**2.3 Sampling Design:**

A universal and purposeful sampling technique was used to recruit the study participants. Socio-demographic details, traditional medicine usage knowledge, and practice among rural tribals-related data were obtained. A pre-tested, semi-structured questionnaire was used.

**2.4 Participants**

Scheduled Tribes of Hirehandigola and Chikkahandigola, Hirekoppa, Chikkoppa, villages of Gadag taluk.

**2.4 Variables**

Independent variables: gender, age, education, and income status.

Dependent variables: knowledge and practice related to traditional medicine usage

**2.5 Data sources**

Primary data were obtained by introducing the questionnaire on study participants who visited the tribal houses to obtain the data. Knowledge and practice were assessed related to traditional medicine usage and its effects on their health.

**2.6 Sample technique and sample size**

Totally 116 tribal household data were collected from the four villages out of 130 households.

**2.7 Statistical methods**

Data were entered into an Excel sheet, analyzed using SPSS v20, and expressed in frequency and percentages. Findings were expressed as descriptive statistics.

**3. RESULTS**

**Table 1. Distribution of Socio-demographic details of study participants (n= 116)**

Characteristics	Frequency (%)	
Gender	Male	
Gender	Male	80 (69)
	Female	36 (21.6)
Age Group	15-20	03 (2.6)
	21-25	17 (14.6)
	26-30	10 (8.6)
	31-35	22 (18.9)
	36-40	09 (15.9)
	41-45	14 (12)
	46-50	14 (12)
	51-55	10 (8.6)
	56-60	09 (15.9)
	61-65	07 (6)
	66-70	01(0.9)
Education level	Primary	13 (11.2)
	Secondary	17 (14.7)
	Pre university	02 (1.7)
	Under graduate	37 (31.9)
	Post graduate	03 (2.6)
Marital status	Married	91(78.4)
	Un married	25 (21.6)

The research exhibited a disproportionate gender distribution, with male participants constituting more than two-thirds of the total sample. This disparity may have implications for the outcomes pertaining to health-related

beliefs and practices, given that gender can influence attitudes towards conventional medicine, while the age demographics of participants spanned a considerable range, with significant representation observed in the

31-35 and 36-40 age cohorts. This may suggest a middle-aged demographic that demonstrates a heightened engagement with healthcare practices. The limited number of participants within the younger (15-20 years) and older (66-70 years) age categories may indicate diminished involvement or interest in the subject matter among these populations, and the elevated proportion of individuals

possessing an undergraduate degree implies a relatively educated cohort, which could influence their perceptions and utilization of traditional medicine. The minimal representation of participants with only primary education or pre-university qualifications may constrict the applicability of the findings to less educated demographic groups.

**Table 2. Distribution of Practice about traditional medicines (n=116)**

Variables	Options	Frequency	Percentage
Have you heard about traditional medicine	Yes	114	98.3%
	No	02	1.7%
What specific traditional medicine Practice have you utilised?	Ayurveda	82	70.7%
	Herbal medicine	06	5.2%
	Home remedies	13	11.2%
	Traditional healers	05	4.3%
	Unani	0	0%
	Yoga	10	8.6%

The pervasive familiarity with traditional medicine among respondents underscores its cultural importance and extensive acknowledgment, while the predominant preference for Ayurveda (70.7%) indicates a pronounced cultural or regional affinity for this specific type of traditional medicine. The negligible utilization of alternative modalities such as Unani (0%) and the comparatively

limited engagement with practices like Yoga (8.6%) or Herbal Medicine (5.2%) may reflect either deficiencies in access, awareness, or confidence in these alternatives. The adoption of home remedies (11.2%) and the consultation of traditional healers (4.3%) imply that, although Ayurveda prevails, there exists a degree of reliance on more localized or informal therapeutic practices.

**Table 3. Factors influenced and Experience of Traditional medicine usage (n=116)**

Variables	Options	Frequency	Percentage
<b>Factors influenced to used Traditional medicine</b>	Belief system	11	9.5%
	Cost effective	11	9.5%
	Natural treatment	26	22.4%
	No side effects	50	43.1%
	Our ancestors followed	18	15.5%
<b>Have experienced any noticeable health improvements after using traditional medicine?</b>	Good appetite	37	31.9%
	Pain relief	14	12.1%
	Reduced stress	59	50.9%
	Other	06	5.2%

The perception of traditional medicine as possessing "no side effects" constitutes a considerable impetus for its utilization, implying that individuals may regard it as more secure or inherently natural in contrast to contemporary medical practices. This

conviction may arise from cultural narratives or individual experiences. Additional elements such as "natural treatment" (22.4%) and "our ancestors followed" (15.5%) illustrate both an inherent trust in the natural origins of traditional medicine and its profound cultural

relevance. The observation that 50.9% of respondents indicated a decrease in stress signifies that traditional medicine is employed as a mechanism for stress alleviation, potentially correlated with the lifestyle or environmental conditions of the demographic.

The other acknowledged advantages, including enhanced appetite (31.9%) and analgesic effects (12.1%), further imply that traditional medicine is esteemed for its perceived comprehensive benefits.

**Table4. Distribution of Challenges facing, beliefs, about traditional medicine usage (n=116)**

Variables	Options	Frequency	Percentage
<b>Did you face any challenges or concerns while using traditional medicine?</b>	Taste and appearance	36	31.0%
	Smell and Diet	80	69%
<b>Do you believe that traditional medicine can complement modern medical practices</b>	Yes	98	84.5%
	No	18	15.5%

The large number of individuals who mentioned "Smell and Diet" as a hurdle raises the possibility that lifestyle and sensory issues could prevent traditional medicine from being adopted more widely. There is a rising acceptance of integrative medicine approaches, as evidenced by the strong opinion (84.5%) that traditional treatment may complement modern practices. This viewpoint might be indicative of a practical viewpoint held by participants, one that appreciates the advantages of both conventional and contemporary medical systems, and could result in a more all-encompassing approach to healthcare.

## 4. DISCUSSION

### Population characteristics

The current study was conducted in Gadag district, rural area. The majority of the participants were belonging to the 15-70 age group, and many of them completed the graduation.

### Traditional medicine knowledge and practice

TM is the oldest form of health care in the world and is used in the prevention and treatment of physical and mental illnesses. Different societies have historically developed various useful healing methods to combat a variety of health- and life-threatening diseases.

Losing this knowledge could have a significant negative impact on the advancement of modern medicine. Indigenous peoples all over the world have used their traditional medicinal knowledge to identify living organisms that are used to treat livestock and human health issues. The traditional wisdom of various tribal tribes, which are in danger of losing their socioeconomic and cultural traits, must thus be documented as much as possible (6).

One of the richest plant medicine traditions in the world is found in India. In India's rural villages, there are an estimated 25,000 potent plant-based remedies that are employed in traditional medicine. More than 1.5 million people use the traditional medical system, which uses medicinal herbs for therapeutic, preventative, and promotional purposes. In India, there are thought to be about 7800 manufacturing facilities for pharmaceuticals, and they use roughly 2000 metric tons of herbs a year (7).

In this study, 98.3% of people practice and have knowledge of traditional medicine. In the previous qualitative study of indigenous medical knowledge and practices of the Reang tribe in Tripura, India, done by R. Pappy Valan and Dr. PK Muthukumar, it was reported that the Reang tribes residing in the southern and northern regions of Tripura possess a greater understanding of indigenous medical

knowledge as well as its various applications (8).

### **Specific traditional medicine practices**

In the current study, 70.7% of respondents used Ayurveda as a traditional medicine, 11.2% used home remedies as TM, and very few consulted traditional healers. According to Preference and Practice of Traditional Medicine and Associated Factors in Jimma Town, Southwest Ethiopia, Chali et al. report that the majority of the respondents indicated that medicinal herbs (118 (54.4%) constitute the prevailing form of traditional medicine. And 141 (63.8%) of the respondents obtained traditional medicine from traditional healers (9).

### **Influenced factors to try traditional medicine**

In the current study, 9.5% are influenced by their belief system; 9.5% feel TM is cost-effective; 22.4% feel it is a natural treatment with no side effects; and 15.5% are influenced by their ancestors. As per WHO, Traditional Medicine Strategy 2014–2023 reported that, due to influences from history and culture, people use TM. 76% and 86% of the respective populations in some nations, including Singapore and the Republic of Korea, where the conventional healthcare system is relatively well-established, still regularly use TM. This shows that manual treatment, as opposed to physiotherapy or care from a medical practitioner, is more efficient and less expensive for treating neck pain. According to the World Health Organization's (WHO), traditional medicine strategy 2014–2023 shows that patients' health care costs and mortality rates are lower for those whose general practitioner has additional training in complementary and alternative medicine than for those who do not. The result of fewer hospital stays and prescription medicine usage was lower expenditures (10).

### **Health improvements**

In the current study, participants experienced good appetite, relief, reduced stress, etc. health improvements after using traditional medicines. According to a previous study of health outcome measures and determinants of using indigenous medicine in pluralistic healthcare in Nagaland, Northeast India, by Moatula Ao, according to the Paretian classification of health change, 27% of the respondents' health conditions "improved" after utilizing traditional medicine, but 45% also experienced "mixed change." Significant results from bivariate probit analysis are seen in older age groups, which are more likely to experience non-communicable diseases. Traditional medicine and non-communicable diseases are more likely to be used the longer a condition has existed. Compared to allopathic medicine, using traditional medicine was more likely (11).

### **Challenges faced in consumption of traditional medicine**

In this study, 31% of participants faced challenges of traditional medicine taste and appearance, and 69% faced challenges of smell and diet during the period of traditional medicine consumption. In a similar study of traditional medicine in Kenya by Daniel Waweru Gakuya et al., the practice faces various challenges, including stigmatization resulting from negative perceptions and attitudes, insufficient efforts towards the preservation of medicinal plants and indigenous knowledge, the influence of modernization, exploitation of knowledge-holding communities, concerns regarding safety, effectiveness, and quality, limited access, as well as the irrational utilization of herbal medicine (12).

### **Believes about Traditional Medicine**

In the present study, 84.5% believe that traditional medicine can complement modern medical practices. A similar study by Olsson I

et.al on the effects of traditional medical practices on the health care delivery system in Nigeria by Imaobong Olsson 72% report that TM is more effective and 28% report that TM is not effective, and according to the results, it is advisable that conventional medical practices in Nigeria obtain official acknowledgement and joint recognition as a healthcare system (13).

## 5. CONCLUSION

Tribal participants have good knowledge and practices about traditional medicine usage. They have adopted good practices regarding traditional medicine practices like Ayurveda, yoga, and home remedies, and they are facing the challenges of traditional medicine in terms of diet, taste, and appearance. They believe TM can complement modern medicine practices.

### Declaration by Authors

**Ethical Approval:** Institutional Ethical approval obtained from School of Environmental Science, Public Health and Sanitation Management, Karnataka State Rural Development and Panchayat Raj University Gadag

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