

# Traditional Healing Practices of Jharkhand's Tribal Communities, India

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## Abstract:

Jharkhand, a state in eastern India, is a treasure trove of traditional ethnomedicinal knowledge with unique collection of medicinal plants and practices that have been used for centuries to treat a range of ailments, including fever, skin conditions, respiratory troubles, and digestive difficulties. The local indigenous people have accumulated a wealth of knowledge on the preservation and application of medicinal herbs, accumulated through years of observation, practice, and inheritance. This medicinal knowledge helps them to develop extremely effective and significantly less expensive treatments than modern treatments. This study focuses on the efficacy of herbal remedies from 82 medicinal plants and 105 medicine preparations for various diseases. The herbal compositions, based on plant parts, such as roots, leaves, bark, fruits, seeds, and stems, or the complete plant, are used to treat ailments with minimal side effects. By documenting and analyzing these traditional remedies for various health conditions, this research aims to promote the preservation and recognition of Jharkhand's traditional ethno-medicinal knowledge.

**Keywords:** Ethno-medicine; Tribal's; Herbal Formulations; Traditional Healers; Jharkhand.

## Introduction

Jharkhand, a state with its varied flora and fauna offers exceptional opportunity for ethnobotanical research. The state's strategic location, bordering several other states and countries, has resulted in a merging of different ethnic groups, each with their own traditional knowledge and practices related to medicinal plants

(Banerjee & Banerjee, 1969). In order to

Maintain a fair level of health, almost 70% of Jharkhand's population totally relies on traditional healers and herbs (Tomar, 2002). It is mostly caused by inadequate medical services in parts of the forested areas and in rural areas. The traditional healers are locals who have acquired these practices out of personal interest in family history. Numerous tribal populations and a dynamic floristic diversity may be found in Jharkhand (Vidyarthi & Gupta, 2004). Twenty-three percent of Jharkhand's total population is comprised of scheduled tribes. The state has 29 scheduled tribes in all, however the Munda (Hembrom & Goel, 2005), Oraon, Kharia, Ho, and Santhal are the major tribes. Owing to their close proximity to the forest, the tribes have long held a special knowledge of the therapeutic properties of the abundant plant life in their immediate surroundings (Lal & Singh, 2012). Approximately 70% of Jharkhand's population relies only on traditional healers and herbs to stay reasonably healthy (Tomar, 2002). It is primarily caused by inadequate medical services in some of the forested areas and isolated areas. The locals who become traditional healers do so because of a genuine interest in maintaining family traditions. The indigenous peoples obtain their knowledge and wisdom from the plants that are readily available in the area. The Munda tribe of Jharkhand possesses a time-honored tradition of herbal medicine, leveraging ancestral knowledge to treat a wide range of illnesses. Numerous medical conditions, such as fever, skin conditions, respiratory troubles, and digestive difficulties, can be treated with these traditional treatments. Their dependence on herbal medicine reflects their strong ties to

the natural world and their faith in the curative properties of plants.

Jharkhand, situated in eastern India, shares borders with West Bengal (east), Bihar (north), Chhattisgarh (west), and Odisha (south). The study areas, Ranchi and Khunti districts, are situated within Jharkhand. Jharkhand is rich in medicinal plant biodiversity. Jharkhand's flora is richer and more varied than that of several other states. Approximately 40% of Jharkhand's land is forested. Local and tribal communities possess knowledge of various shrubs, herbs, and medicinal plants found in the region (Anand K., 2019). The goal of this effort is to collect traditional knowledge on the use of therapeutic herbs from indigenous communities.

### Traditional healing practices

A human being can be said to be completely healthy only when all parts of the body are functioning at a high physiological level and the entire body is able to attain and maintain full biological power and balance under all environments. Indigenous people have distinct perspectives on life and death, illness, health, and treatment. In tribal cultures, it is common to believe that illness is caused by taboo violations or by malevolent spirits, ghosts, or the deceased. These spirits frequently punish individuals with illness for all of their wrongdoings and sins. Actually, from a tribal standpoint, disease is like to other natural occurrences in that it is complex and inherently inscrutable, with no one theory capable of effectively accounting for all of the knowledge currently accessible.

Due to the availability of medicinal plants in abundance, perhaps storing extracted medicines were not that necessary and they kept using fresh medicines all the time. If we do not take these rules seriously and understand them properly, they may seem related to superstition.

The following rules were in practice-

1. Some medicinal plants must be uprooted with a single breath (Uprooting a plant in a single motion, without breaking or

damaging its roots), like chirchita (*Achyranthes aspera* Linn). For some diseases, it must be used with the same breath (medicinal concoction should take immediately without interruption or delay).

2. On the banks of the drain, the roots that come out after being washed by water should be used more, but they should be cut or broken with a single knife, avoiding the eyes of the people. Like the root of Putri.

3. Some medicinal plants have to be uprooted or plucked early in the morning, before going to the field, avoiding the gaze of people.

Due to this type of exploitation, some roots remain on the soil, which grow again when the rains come.

4 To remove bark from tree trunks, scrape the bark from the bottom in one breath. The top is peeled.

5. The bark of some twigs also has to be taken out in one breath and applied in the same breath

With this method the cuts are not deep and are less than necessary then there is no over-exploitation.

6. In case tubers need to be dug out, after removing the entire tuber, the pit is filled with soil and the upper part (head) of the tuber is dug out and replanted.

7: For taking out the roots of a plant or vine, only half of its weight is taken out by beating it and then the whole body is covered with soil again. If this much of the root is not sufficient, then the root is taken out in the same way from another branch. While beating, there should be no shade on the plants.

8. For storage, annual plants are taken only after their seeds have fallen.

9. Bark is taken only from mature stems.

10. Gum from trees: To obtain it, gum is obtained without cutting the trees as far as possible.

If a tree has to be cut for sap, then a mature tree is chosen and the cut is made only at the time of the onset of summer season. This work is prohibited in the rainy season. These rules certainly seem like superstitions from the outside but how

correct are they from the scientific point of view because these have been made very intelligently for the protection of medicinal plants. "With one breath" a deep meaning is hidden in these three words. In this process the doctor's attention goes to God, patient, time and medicine. This attention is an important aspect of medicine. Its form becomes cultural rather than commercial. Which is not there in the last medical system? If we still follow this, that is, these rules which have been followed since the past, then there will be more benefit than harm. The only difference is Only thing is that these rules were linked to trust and not to protection

11. To keep the decoction safe for longer periods, jaggery, dhay flower (powder) or honey has to be added. But it needs to be kept in sunlight for about a month.

12. In rural areas, medicines remain safer if they are hung above the wood stove or from the ceiling in the kitchen.

If the plants are not utilized according to the rules, then their medicinal properties will be lost. All this was done so that the medicinal plants are exploited properly and in this way they can be preserved.

The raw material in dry condition lasts for one year and the packaged powder starts losing its quality after two uses. Moisture is the primary enemy during storage, as it can lead to spoilage, degradation, and loss of potency. In tribal medicine, the medicine is advised to be taken with old jaggery, honey, black pepper, rock salt, alcohol, rice wash, water, sugar candy etc. In reality, all these are vehicles, they are more of carriers and less of medicines. Every doctor should know which carrier to use for which disease or which carrier to use with which medicine. In treatment, only effective super fast carriers should be chosen.

For diseases of the respiratory system, black pepper, long pepper or honey are generally used. For menstrual problems in women, honey or old jaggery and rice washing water is used for leucorrhea; for diseases related to the digestive system, rock salt, black pepper, black salt, honey;

for nerve-related diseases, honey, old jaggery or the strongest liquor made from Mahua, for urinary diseases, sugar candy, etc. are used.

The method of preparing the medicine includes tablets, powder, its mixing with strong Mahua liquor, crushing the medicine, soaking it for about twelve hours and then mixing it with water, decoction of the medicine. Acupuncture with hot a sickle is used to treat diseases like tetanus, spleen, tumor, etc. Abdominal massage is commonly used for stomach pain or pregnancy problems, while nerve massage is used for arthritis. Paste is used to treat boils, bone fractures, tumors, glandular enlargement, spleen issues. Cupping and fomentation with hot a spade are also used for some special diseases. The strong liquor of Mahua is called that which catches fire. This medicine is considered more effective. The method of taking or administering the medicine is said to be once, twice or thrice a day. Unless the time of taking the medicine is specified, all medicines are to be taken on an empty stomach. Thus, once means immediately after washing the mouth in the morning, twice means immediately after washing the mouth in the morning and in the evening, three times means after washing the mouth in the morning, half an hour before lunch and in the evening. Medicines taken on an empty stomach are more effective. Powder or tablet in grams is given in large quantity to the patient to eat. It has been found from observation and experiment that generally a pinch of powder and a tablet equal to a pea (dry) is sufficient. Giving more quantity also gives the same benefit as a pinch of powder or a dry tablet equal to a pea. In raw state, the tablet is given twice as much because it contains water. To eradicate chronic diseases from the root, giving one to two pinches of powder or one to two dry tablets for more days i.e. for a long period is more successful. But in acute cases, half to one teaspoon of powder or a tablet equal to the size of the baheda (*Terminalia belerica*) fruit is given three to

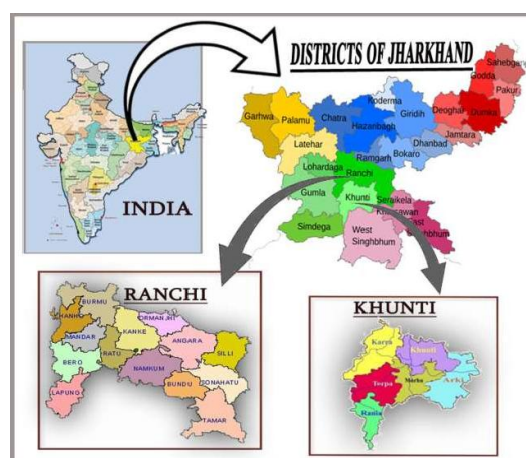
four times a day. Medicines for abdominal cramps or constipation are generally given in the morning on an empty stomach and at night before sleeping with warm water. Unless it is said that the medicines are to be taken with warm water, all medicines are taken with cold water only.

Conventional medicines are generally taken after eating something while tribal medicines are taken before eating. Conventional medicines provide immediate relief and cure the disease, but they actually suppress the disease and it grows again as soon as favorable conditions are found while tribal medicines can destroy it from the root itself. It is like cutting or uprooting a tree. Cutting a tree takes less time but uprooting it takes more time. A plant grows again from the stump of a cut tree. Tribal medicine generally increases the immunity of the body and the rest of the work is done by the body itself. Due to this, there are no reactions or side effects in this medicine. Many medicines are made from food items about which it can be said that "We do eat food items, but their combination, quantity and time of eating give them the form of medicine."

### Methodology

The study used a combination of interview techniques and field observations to collect data on traditional medicinal plants and their uses. The plant species were identified using various floras and botanical names were cross-checked with earlier published literature. This ethnomedicinal study was conducted in Jharkhand, India, focusing on rural areas of Ranchi, Khunti districts. These regions, inhabited by diverse tribal communities, were chosen for their rich cultural heritage, ethnic diversity, and abundant plant resources, including forests, agricultural lands, and home gardens, providing valuable insights into traditional medicinal plant knowledge, usage patterns, and practices. Figure 1 shows the Geographical location of Jharkhand, Ranchi, and Khunti districts.

After developing a strong rapport with the community, traditional healers or medicine men were approached for informal, targeted interviews with open-ended inquiries. Because the chance of a natural therapy for a frequent or prevalent condition appeared to be high, the interviews focused on the most common disorders among the participants. Additional respondents were consulted to confirm the formulations' components and disease specificity. The responders' contact information was also recorded for future reference.



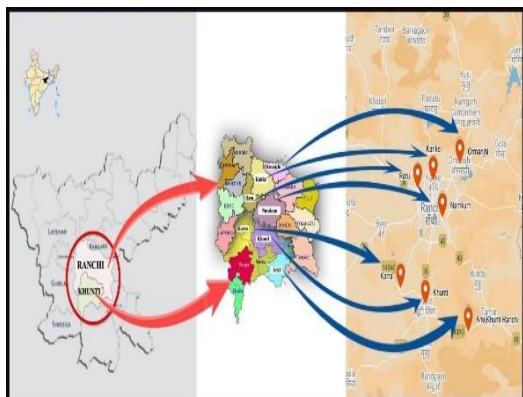
**Figure 1: Geographical location of Jharkhand, Ranchi, and Khunti districts**

**Data collection**  
This ethnomedicinal study was conducted in seven strategically selected blocks of Khunti and surrounding rural areas of Ranchi district, Jharkhand, India: Kanke, Namkum, Ormanjhi, Ratu, Karra, Khunti, and Arki. These blocks, predominantly inhabited by the Munda tribal community, were chosen for their rich cultural heritage, ethnic diversity, and abundant plant resources, including forests, agricultural lands, and home gardens, providing valuable insights into traditional medicinal plant knowledge, usage patterns, and practices.

This study used a multi-method approach, integrating Household Questionnaire Surveys (HQS) for quantitative data, Key Informant Interviews (KIIs) for qualitative insights, and Focus Group Discussions



(FGDs) for validation and additional information. Data collection employed two primary methods. Semi-structured interviews were conducted with 96 respondents to gather in-depth information on traditional medicinal plant usage, including plant preparation methods, administration routes, and treated diseases. Concurrently, plant specimen collection was undertaken with respondents, where they identified and collected medicinal plant species used in their practices. These specimens were then documented, photographed, and stored in the Ranchi University herbarium for verification and future reference.



**Figure 2: Map showing the location of Jharkhand in India and highlighted study area in map of Jharkhand**

### Participant Information

Ninety-six informants from the Munda tribal community participated, comprising traditional healers, leaders and patients. Their ancestors acquired medicinal plant knowledge through oral tradition. When ill, rural inhabitants typically consult medicinal plants first. Tribal practitioners effectively use multiple plants to treat diseases.

It was noted that the majority of traditional healers are older, with the majority of them being in the 50+ age range. The respondents who were under 50 years old knew very little about therapeutic herbs. This suggests a fall in the understanding of the applications of therapeutic plants,

which could eventually lead to the extinction of this ancestor's knowledge. In contrast to men, there were more women informants in this ethnobotanical survey. The female informants listed more species of therapeutic plants. This is due to the fact that most traditional healers in Ranchi and Khunti, both among tribal and non-tribal people, were female.

### Preparation of Traditional Remedies

Medicinal plant parts were documented for each reported medicine preparation in the study area. The compositions of traditional remedies were found to comprise combinations of multiple medicinal plant species or plant components. Furthermore, the study examined the plant materials utilized and the methods employed in preparing traditional plant medicines, including administration routes and dosages.

### Use Value (UV)

The Use Value (UV) determined using Phillips *et al.*, (1994) formula:  $UV = \frac{\sum U}{N}$ . The number of uses stated by informants for a specific species is denoted by "U," and the total number of informants questioned is denoted by "N."

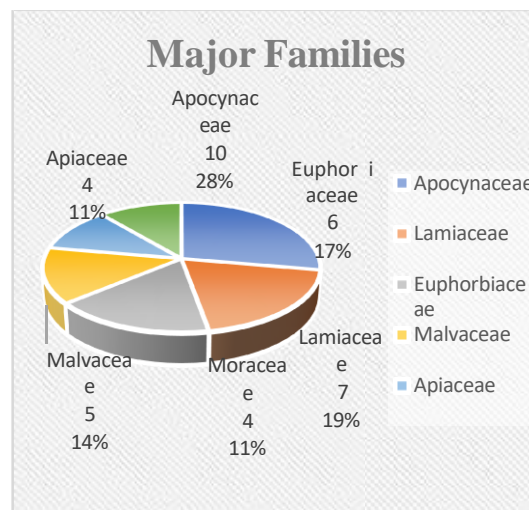
### Relative frequency citation (RFC) and frequency of citation (FC).

The Frequency of Citation (FC) is the number of informants reporting the use of plant species. The Relative Frequency Citation (RFC) index was calculated using Vitaliniet *al.*, (2013) formula:  $RFC = \frac{FC}{N}$  ( $0 < RFC < 1$ ), where N represents the total number of informants.

### Results and Discussion

The study highlights the significance of traditional medicinal knowledge in rural areas of Ranchi and Khunti, Jharkhand's tribal communities. The use of medicinal plants for various ailments demonstrates the communities' reliance on traditional medicine. The study also highlights the importance of preserving traditional knowledge and promoting its integration

with contemporary medicine. The traditional healers' adherence to the for harvesting and preparing medicinal plants demonstrate the thoughtfulness of the traditional healers and the need for sustainable use. The study's findings have implications for the findings of new drugs and therapies, as well as for the conservation of medicinal plants. A total of 105 herbal formulations of ethnic origin were documented representing 31 different types of human ailments and comprising 107 plant species from 47 families were recorded in this study. The plant families documented in the study include Fabaceae (14), Apocynaceae (10), Lamiaceae (7), Euphorbiaceae (6), Malvaceae (5), Apiaceae (4), Moraceae (4), Celastraceae (3), Combretaceae (3), Rubiaceae (3), Rutaceae (3), Acanthaceae (2), Anacardiaceae (2), Menispermaceae (2), Myrtaceae (2), Piperaceae (2), Poaceae (2), Rhamnaceae (2), Sapotaceae (2), and Zingiberaceae (2), as well as Acoraceae, Alangiaceae, Amaryllidaceae, Aristolochiaceae, Bignoniaceae, Brassicaceae, Capparaceae, Caricaceae, Colchicaceae, Combination, Convolvulaceae, Crassulaceae, Cucurbitaceae, Gentianaceae, Hypoxidaceae, Lauraceae, Meliaceae, Moringaceae, Musaceae, Nyctaginaceae, Oleaceae, Plantaginaceae, Primulaceae, Sapindaceae, Solanaceae, Symplocaceae, and Urticaceae, each represented by a single species.



**Figure 3: The percentage of plant species distributed over major families.**

Table 1 presents the ethnomedical formulations relevant to the illnesses gathered throughout the inquiry. The purpose was not to investigate the medicinal properties of individual plants or their components, but rather to document complete formulations for treating various illnesses. The plants were initially identified using their local names and later verified using various floras. Once the plants had been identified on the site, they were identified using different floras (Kirtikar and Basu (1991), Haines (1924), Paria and Chattopadhyay (2000), Chopra *et al.*(1996), Ambasta *et al.* 1992). Before conducting any interviews, the respondents provided explicit consent, and the International Society of Ethnobiology's ISE (2006) ethical guidelines were strictly observed.

**Table 1: Traditional Remedies**

Respiratory Diseases	
Pharyngitis: Inflammation of the pharynx (throat)	(i) Lick the fresh leaves or powder of dried leaves of <i>Aristolochia indica</i> (Ishwarmul) with honey. (ii) Lick the powder of <i>Glycyrrhiza glabra</i> (Yashtimadhu/Jethimad) with honey.
Laryngitis: Inflammation of the larynx (voice box)	(i) Take juice of <i>Mentha viridis</i> (mint) with honey. (ii) Give the powder of the root of <i>Aristolochia indica</i> (Ishwarmool) with honey. (iii) Add two drops of eucalyptus - <i>Eucalyptus globulus</i> -oil to one spoon of sugar and suck it.

<p>Bronchitis: Inflammation of the small airways (bronchioles) in the lungs</p>	<p>(i) Make a decoction of the root of <i>Acorus calamus</i> (Vach), leaves of <i>Adhatodavasica</i> (Adusa) and leaves of <i>Aegle marmelos</i> (Bel) and add three powdered black peppers. Give one teaspoon each in the morning, afternoon and evening before meals for 5-7 days.</p> <p>(ii) Make a paste by mixing leaves of <i>Moringa oleifera</i> (drumstick, munga), leaves of basil (<i>Ocimum sanctum</i>), both about 150 grams each, Pippali (<i>Piper longum</i>) 10 grams, dry ginger 5 grams, some Vacha and bay leaves in it. Give one teaspoon of each three times a day.</p> <p>(iii) Make a decoction by mixing equal quantities of <i>Allium cepa</i> (onion) bulb, <i>Calotropis gigantea</i> (ak, palti) root, one camphor, <i>Clitoriaternata</i> (aparajita, ruhuduhu) root and three round peppers. Give one teaspoonful of the decoction three times a day for 15-20 days.</p> <p>If the windpipe gets dilated, resulting in a cough with a large amount of phlegm, traces of blood, (i) Take <i>Moringa oleifera</i> (Sahidrukhi, Munga) leaves, two handfuls of <i>Ocimum sanctum</i> (Tulsi), dry ginger 125 grams, <i>Piper longum</i> (Peepal) 10 grams, <i>Acorus calamus</i> (Vach) 10 grams, <i>Clerodendroninfortunatum</i> (Bharni, Chamgar) root about 100 grams, boil in ten times water and drain till one-fourth of water remains. Strain the mixture and administer one teaspoon three times a day, half an hour before meals. Avoid smoking and tobacco in any form. If the disease persists for a long time despite medicines, then a good doctor should be consulted. Such a patient should be given Tulsi leaf tea and fritter made from the fruit of the <i>Solanum indicum</i> (Hanjed) f to eat.</p>
<p>Pneumonia: Inflammation of the lungs</p>	<p>(i) Give the powder or tablet of the root of <i>Celastrus paniculata</i> (Malakangani, Kujari), about the size of a pea, with honey or old jaggery, twice a day for 7-10 days. Along with this, grind the bark of <i>Elaeodendron glaucum</i> (Ratanagaud, Niridaru) and apply it on the body.</p> <p>(ii) Grind the root of <i>Zizyphus rugosa</i> (Pithor, Sirka) and mix it with a glass of water. Administer 3-4 times a day for 7-10 days. Along with this, grind the whole plant or seeds of Ratanagaud or <i>Sinapisramosa</i> (mustard) with doob grass (<i>Cynodondactylon</i>) and apply it on the entire body.</p> <p>(iii) Boil a handful of <i>Nyctanthes arbor-tristis</i> (Harsingar, Saparom) leaves and <i>Clerodendroninfortunatum</i> (Bharni Chamgar) leaves in 8 glasses of water until 2 glasses remain. Filter, reheat, and add 50 grams of jaggery and 9 black peppers. Boil until the mixture thickens slightly. Administer two teaspoons, three times a day, for 7-10 days.</p>
<p>Asthma: A chronic inflammatory disease of the airways</p>	<p>(i) Take six large leaves of <i>Aristolochia indica</i> (Ishwarmul, Jhunka God). Both fresh and dried leaves can be used. Eat one leaf every day for six days continuously. Half an hour after lunch or breakfast, take one leaf and chew it slowly like a betel leaf and swallow the juice.</p> <p>After taking the medicine, do not eat or drink anything for two and a half to three hours because there is a fear of vomiting. Never take it before eating. This medicine has generally been found to be more suitable for smoke allergy.</p> <p>(ii) The medicine which is beneficial in allergy to pollen or dust. Take the bark of the stem of <i>Terminalia arjuna</i> (Arjun, Kahuva) and make its powder. On the evening of full moon, prepare 50 to 100 grams of kheer (Rice pudding made with cooking rice in milk). Dry fruits can also be added to it to make it tasty. Make kheer from cow's milk. Keep the kheer in a place where moonlight falls throughout the night. In the morning, well before sunrise, mix one spoon of Arjun powder in it and eat the entire</p>

	<p>kheer. You may have an attack at ten or eleven o'clock, but do not panic. If the disease is not completely cured in one go, then repeat it on the next full moon day.</p> <p>(iii) Combine six handfuls of <i>Vitex negundo</i> (Nirgundi, Sinduwar) leaves, about 50 grams of <i>Zinziber officinale</i> (dry) dry ginger and one medium sized <i>Randiadumetorum</i> (Loto, Mauna, Potob) fruit. Grind them and boil in six times water. When one fourth of the water remains, take it off and filter it. Take one teaspoon in the morning, afternoon and evening half an hour before meals for 15-20 days.</p> <p>(iv) Take eight to ten buds of <i>Calotropis gigantea</i> (Aak, Palti, Akouna) flowers and boil them with milk and water. Take it off the flame after boiling for ten to fifteen minutes. Filter and dry the buds and make powder. Give a pinch of this powder with honey in the morning on an empty stomach for 15-20 days.</p>
<p>Tuberculosis (TB): a bacterial infection that primarily affects the lungs.</p>	<p>(i) Take two drops of <i>Celastrus paniculata</i> (Kujri, Malakangani) seed oil in the yolk of a raw hen's egg in the morning on an empty stomach for one and a half to two months. Take once daily.</p> <p>(ii) Wash and cut the small branches and leaves of <i>Adhatodavasica</i> (Adusa, Bakas) leaves into pieces. Boil it in approximately ten times water (by weight). When one-fourth water remains, remove from heat and filter it. After filtering, put it on fire again. When it boils, add 50 to 100 grams of jaggery. When the decoction becomes somewhat thick, remove from heat and filter it, administer 2 spoons 2-3 times daily for one and a half to two months.</p> <p>(iii) Take the pulp of <i>Artocarpus heterophyllus</i> (Jackfruit) seed cocoon. All the cocoons should be whole and the seeds should remain inside. Take old wet jaggery and fill it about one centimeter thick in the bottom part of the pot. Put a layer of cocoon on top of it. Cover that layer with jaggery. Put the cocoon again and then cover it with jaggery. Do the same till the pot is full. Put jaggery on top and cover it. Expose the pot to sunlight for 21 days. Give two teaspoons of it two to three times a day for one and a half to two months.</p>
<b>Gastrointestinal disorders</b>	
<p>Stomach ache: often caused by indigestion, gas, or inflammation.</p>	<p>Administer a pinch of (i) <i>Alstoniascholaris</i> powder, (Similarly, give a pinch of the powder of (ii) <i>Croton oblongifolius</i> (Putri, Kuti) or the bark of mature tree trunk, or (iii) <i>Aristolochia indica</i> (Ishwarmul, Jhunka God), or (iv) the powder of <i>Rauwolfia serpentina</i> (Sarpagandha, Nagbail), or (v) the powder of <i>Helicteres isora</i> (Aindan, Rantadaru), or (vi) the powder of the fruit or root of <i>Cissampelos pareira</i> (Patha, Pitu Siza), or (vii) the powder of <i>Desmodium triflorum</i> (Taben Adah), or (viii) the powder of <i>Combretum nanum</i> (Tigtodeng, Pertol), or (ix) the powder of <i>Holarrhena antidysenterica</i> (Koraya, Tov Ba), the powder of the bark of mature tree.</p>
<p>Ulcers</p>	<p>Give a pinch of (i) <i>Ardisia solenacea</i> (Gada Gulichi) bark or (ii) <i>Pavetta indica</i> (Pete: Sis) bark powder or (iii) <i>Cissampelos pareira</i> (Patha, Pitu Sin) root powder with a pinch of old jaggery or honey in the morning and evening. Avoid rich food, cream, meat, fish, eggs etc.</p>
<p>Loss of appetite: decrease in</p>	<p>(i) The juice of <i>Glycosmis pentaphylla</i> (guma saag) is the best medicine. (ii) The powder of 50 grams of <i>Crotalaria juncea</i> (sunn hemp) leaf, 100 grams of <i>Foeniculum vulgare</i> (fennel), 300 grams of sugar candy and</p>



hunger	consuming half to one teaspoon twice a day is beneficial. If 50 grams of <i>Holarrhenaantidysenterica</i> (Indrayava) is added to it. Swallow the medicine and drink hot water.
Constipation: often caused by a low-fiber diet, dehydration, or physical inactivity.	(i) Take half to one teaspoon of Triphala powder with warm water in the morning on an empty stomach and at night before sleeping for 7-10 days. (ii) Take quarter to half teaspoon of powder of bark of <i>Soymidafebrifuga</i> (Rohini, Mansarohini) as per step (i). (iii) Mix one-fourth quantity of <i>Holarrhenaantidysenterica</i> (Kutaja, Koringa) root powder with Triphala powder and give half to one teaspoon as per step (i). (iv) Mix one-fourth of the powder of the pulp of the raw fruit of <i>Aegle marmelos</i> (bael, bel) or the pulp of the fruit of <i>Cassia fistula</i> (Amaltas, Aragvadha) in Triphala powder and give it as in sequence (i). Adding a little rock salt will stimulate the medicine.
Piles (Hemorrhoids): Swollen veins in the rectum or anus	(i) Grind a handful of fresh leaves of <i>Tamarindus indica</i> (Imli). Grind 3 black peppers and mix them in it. Mix it in a glass of water and drink it in the morning on an empty stomach for 12-15 days. (ii) Take 5 to 6 soft roots, 3 to 4 inches long, from the hanging roots of <i>Ficus benghalensis</i> (Vata, Bargad) tree. Crush them a little and cook them in one litre of milk and give it in the morning on an empty stomach for 12-15 days. (iii) Prepare sherbet with seven fresh leaves of <i>Cassia fistula</i> (Amaltas, Aragvadha) and five round peppers and give it to the patient to drink every morning and evening for 15-20 days.
Anal Fistula: An abnormal connection between the inside of the anus and the skin	(i) Grind the bark of <i>Ficus religiosa</i> (Ashvattha, Peepal) tree and the hanging soft roots of <i>Ficus benghalensis</i> (Vata, Banyan) tree and the root of <i>Mimosa pudica</i> (Lajjalu, Lajwanti) and mix them in equal quantities with the medicine for constipation. Give a pea-sized pill with old jaggery or honey twice a day. (ii) The root or seed of <i>Hibiscussabdariffa</i> (Gurhal, Red Kudrum), the bark of <i>Ficus infectoria</i> (Plaksha) and <i>Holarrhenaantidysenterica</i> (Kutaja, Koringa). Grind the ointment by mixing milk of <i>Holarrhenaantidysenterica</i> (Kutaja, Koringa, Koraiya) and apply it with the finger. Or prepare an ointment with the bark of <i>Symplocos racemosa</i> (Lodhra) and the bark of <i>Terminalia arjuna</i> (Arjuna) and apply it with the finger.
Diarrhea: Caused by viral or bacterial infections, food poisoning, or medication.	(i) (Due to heat) Dry the tender leaves of <i>Tamarindus indica</i> (Imli) and make powder. Add a little rock salt in a glass of water and give one teaspoon of powder, two to three times a day. 3-5 days. (ii) <i>Mangifera indica</i> (Mango) stem bark, or <i>Spondias pinnata</i> (Amra) stem bark, or <i>Bombax ceiba</i> (Semul) stem Grind the bark of this tree freshly. Then prepare a thick juice by mixing it with a glass of water. Give it in the morning and evening for 3-5 days. (iii) <i>Mangifera indica</i> (mango) seed pulp or <i>Musa sapientum</i> (banana) raw fruit powder, half teaspoonful given morning and evening for 3-5 days.
Dysentery:	(i) Mix one-fourth part of <i>Acorus calamus</i> (Vacha) powder with Triphala (1:1:1) powder. Give one pinch of this powder in morning and evening with honey or old jaggery for 15-20 days. (ii) Mix one-fourth part of <i>Croton tiglium</i> (Nagdaanaa, Jayapala) root powder with Triphala (1:1:1) powder and give as in step (i). (iii) Mix asafoetida (Hing) equal to urad dal (black gram) in it every

	<p>morning and evening and eat it for 15-20 days.</p> <p>(iv) Mix one-fourth powder of <i>Carum carvi</i> (black cumin) with Triphala powder (1:1:1) and a little <i>Cinnamomumcamphora</i> (Karpoor) and give as in step (i).</p>
Gastroenteritis	<p>(i) Take three teaspoons of <i>Celastruspaniculata</i> (Malkangani) oil at a time with sugar or some edible item. If necessary repeat after eight hours.</p> <p>(ii) Mix equal quantities of the powder of fruit of <i>Helicteresisora</i> (Amlavetasa, Marodphali) and root powder of <i>Cissampelos pareira</i> (Patha, Pitusiz) and give half teaspoonful twice daily for two to three days.</p> <p>(iii) Grind seven <i>Piper nigrum</i> (Black pepper), and a little rock salt and mix it with the powder of the tuber of <i>Bryonialacinosa</i> (Kakmachi). Give half a teaspoon of this mixture in the morning and evening for 2-3 days..</p> <p>(iv) Grind and mix 12 black peppers, a little rock salt, three leaf buds of <i>Bryonialacinosa</i> (Kahu Botke), a little root of <i>Holarrhenaantidysenterica</i> (Koraya, "Tov Ba), <i>Ferulaasafoetida</i> (Hing) equal to two urad dal and <i>Andrographispaniculata</i> (Kalmegh),panchaang in the tuber of <i>Bryonia lacinosa</i> (Kahu Botke). Mix it in the flower liquor of Mahuva and drink half a cup of it in the morning on an empty stomach.</p>
Acidity	<p>(i) Mixed with rock salt (i) <i>Tamarindus indica</i> (Imli) - Tender leaves or <i>Zizyphus jujuba</i> (Ber) - Ripe fruit powder or <i>Hibiscus sabdariffa</i> (Red Kudru, Thepa) - Red fruit powder</p> <p>and give one teaspoon each in the morning and evening for 5-7 days.</p>
<b>Infectious Diseases</b>	
Jaundice	<p>(i) Tender leaves of <i>Aegle marmelos</i> (Bael)</p> <p>(ii) Leaves, fruits, flowers of <i>Scoparia dulcis</i> (Sweet Broomweed, Madhana)</p> <p>(iii) Panchanga of <i>Phyllanthus niruri</i> (Bhui Amla)</p> <p>(iv) Panchanga of <i>Leucas cephalotes</i> (Dronpushpi, Goma)</p> <p>Make a bitter sherbet by mixing any one of these with sugar candy and give one glass each in the morning and evening for two to three days.</p> <p>in secondary stage</p> <p>(i) Wrap the panchaang of <i>Leucas cephalotes</i> (Dronpushpi, Goma), in fresh leaves of <i>Croton oblongifolius</i> (Nagdaanaa) and cook it in hot ashes. Squeeze out the juice. Filter it, give two teaspoons every morning and evening for 5-7 days.</p> <p>(ii) Grind fresh tender leaves of <i>Ricinus communis</i> (Castor). Take two to three teaspoons of the mixture with 100 grams of curd, twice a day for 5 to 7 days.</p> <p>(iii) Make wine from Karhani rice (madi) and add a glass of water to it. After an hour, drain the water and keep it aside. Do not give it to the patient. After this, add a glass of water again. After an hour, strain out all the water and give it to the patient. Give the same to the patient half an hour before meals in the morning, afternoon and evening for 5-7 days.</p> <p>in a chronic condition</p> <p>(i) Take a quarter to half teaspoon of <i>Pterospermumacerifolium</i>(Muchkunda, Kanakchampa)flower powder and drink a glass of warm rice water. Twice a day for 7-10 days.</p> <p>After the disease is cured, take medicine only for one day otherwise there is a risk of getting pneumonia.</p>
Poliomyelitis (polio)	<p>(i) Take the fruits, flowers and leaves of <i>Leucas cephalotes</i> (Dronpushpi, Goma), chew them and wipe the hands and feet of the child with smoke</p>

	<p>three times each. From the shoulder to the fingers and from the waist to the toes. Three times a day, for three days. It is believed that if the brother of the patient's mother does this exorcism, the patient gets well soon.</p> <p>(ii) <i>Helicteresisora</i> (Amlavetasa, Marodphali) fruit is cooked in mustard oil and then massaged from top to bottom. This medicine is applied to children up to five years of age.</p> <p>(iii) <i>Cuscutareflexa</i> (Amarbel, Akashbel) is cut into pieces and cooked in mustard oil to make coal. The coal is taken out and ground and then mixed in the same oil and massaged on hands and feet in the morning and evening. This is the medicine for elders as well.</p> <p>(iv) <i>Gymnemasylvestre</i> (Gurmar) root, <i>Hemidesmus indicus</i> (Sariva) root, <i>Cassia fistula</i> (amaltas) root, <i>Stereospermumsuaveolens</i> (Padri, Patali) bark, <i>Carica papaya</i> (papaya) (root), <i>Moringa oleifera</i> (Sahjan) root, <i>Tinospora cordifolia</i> (guduchi) vine, cook all of them in mustard oil. Before taking it off, add some singarip, some kaefal. Strain and massage hot.</p>
Typhoid (intestinal fever)	<p>(i) Grind the root of <i>Ichnocarpus frutescens</i> (Anantmool), and the root of <i>Kaempferia galanga</i> (Kulanjan, Bhui Champa) separately and mix them in equal quantities. Give a pea-sized tablet in the morning and evening. For 15-20 days.</p> <p>(ii) Root of <i>Cissampelospareira</i> (Patha) and root or stem bark of <i>Ardisia solanacea</i> (Raktaphal), ground in equal quantities Mix it. Give a pea-sized pill every morning and evening. 15-20 days.</p>
Malaria fever	<p>(i) Grind 5-6 hen egg shells (from which chicks have hatched), pulp of one or two mango stones, and one fruit of <i>Randiadumetorum</i> (Pindar, Tholko) and add little water to make a thick paste. Give two to three teaspoons, two to three times a day, for 10-12 days.</p> <p>(ii) Grind equal quantities of bark of <i>Morindacitrifolia</i> (Aal, Chauli), tree and bark of <i>Ricinus communis</i> (Eranda, Castor) tree. Give pea-sized tablets two to three times a day for 10-12 days.</p> <p>(iii) Grind the panchaang of <i>Swertia chirata</i> (Chirayta), and give with water or its decoction or extract half a cup two to three times a day for 10-12 days.</p> <p>(iv) Make a decoction of the bark of <i>Hymenodictyonorixense</i> (Bhurkund, Kurkur) and give half cup two to three times a day for 10-12 days.</p>
Pneumonia	<p>(i) <i>Ichnocarpus frutescens</i> (Anantmool)root and <i>Curculigoorchioides</i> (Kali Musli) tuber. Mix both (root and tuber) in equal quantity and grind. Give one tablet equal to a pea in the morning and evening for 15-20 days.</p> <p>(ii) Grind the seeds of <i>Corchorus depressus</i> (Tida, Pidotodi)and give pea-sized tablets to the child every morning and evening. For 15-20 days.</p> <p>(iii) Grind the leaves and fruits of <i>Rauwolfia serpentina</i> (Sarpagandha) or grind the root of <i>Celastrus paniculata</i> (Malkangani) and give a pea-sized tablet in the morning and evening for 15-20 days.</p> <p>To reduce body temperature, rub the following medicine on the body.</p> <p>(i) <i>Elaeodendronroxburghii</i> (Ratangaud) Grind the stem bark and apply on the body.</p> <p>(ii) Oil of <i>Celastrus paniculata</i> (Malkangani) in eggs of native hen mix it with a teaspoon of lime water and rub.</p> <p>(iii) Mix the root of <i>Vetiveriazizanoides</i> (Khus) root of <i>Ichnocarpus frutescens</i> (Anatmool), fat of pig and Kanji (sour) water and make a thick</p>

	<p>paste. Also apply on the navel.</p> <p>(iv) Take tender leaves of <i>Zizyphus jujuba</i> (Ber) and crush them. Put them in water and churn well. When foam comes out, place the foam on the navel.</p>
Kala-azar (visceral leishmaniasis)	<p>(i) Grind the bark of <i>Vitex negundo</i> (Charaigodwa, Nirgudi) and the root of <i>Boerhaviadiffusa</i> (Khapara Saag) separately and mix them in equal quantities. Put them in a covered vessel. Boil water four times the amount of the ingredients in a covered vessel. Let the water boil for ten minutes from the time it starts boiling. Then take this hot water and immediately put it in another vessel. When it cools down, filter the water and store it in bottles. This decoction is prepared in 15 to 20 times the weight of the bark in water. Give half a cup of decoction in the morning, afternoon and evening, half an hour before meals.</p>
Tetanus	<p>(i) Grind the root of <i>Indigofera linifolia</i> (Chhachhar, Chhatpatia), root of <i>Mimosa pudica</i> (Lajwanti, Chui-mui), <i>Cervuselaphus</i> (Deer horn), and 25 round peppers and make tablets of the size of peas and eat them. It is given three times a day for three days.</p> <p>(ii) The root of <i>Dalbergia latifolia</i> (Sisam, Sisham), the root of <i>Cassia occidentalis</i> (Kasondi, Kasamarda) and the panchaang of <i>Fleuryaaestuans</i> (Lal Bichhuwa, Lal Bichhuwa) are ground into tablets of the size of a pea and given three times a day before meals for three days.</p> <p>(iii) A pea-sized tablet is mixed with <i>Ocimumbasilicum</i> (Babui, Tulsi) root, <i>Kaempferia galanga</i> (Kachur, Kachura) root, seven black peppers <i>Piper nigrum</i> and <i>Cervus elaphus</i> (Deer horn) given three times a day for three days.</p>
<b>Non-Infectious Diseases</b>	
Diabetes	<p>(i) The powder is made from dried Jamun seeds (<i>Syzygiumcumini</i>), is consumed (one table spoon) on an empty stomach on a regular basis for long-term comfort.</p> <p>(ii) Juice extracted from Bael (<i>Aegle marmelos</i>) leaves is taken one tablespoon daily on a regular basis.</p>
Epilepsy	<p>(i) A paste formed from a medium-sized entire plant of Tulsi (<i>Ocimum sanctum</i>) and Doob grass (100 g)- <i>Cynodondactylon</i> + Bark of Semal (100 g)- <i>Bombax ceiba</i> is applied to a shaved head once a day in the morning for ten days.</p> <p>(ii) For 15 days, take half a tablespoon of Mulathi or Liquorice Powder (<i>Glycyrrhiza glabra</i>) combined with half a spoonful of honey twice day.</p>
Rheumatic disorders	<p>(i) Take half a teaspoon of the powder of the root of <i>Alangiumsalvifolium</i> (Ankota, Dhela) and swallow it with warm water. Twice a day. Wash the affected part with warm water and apply this paste in the morning and night, then wrap it with the leaves of Aakvan and tie it. 10-12 days.</p> <p>(ii) Bark of <i>Spondias pinnata</i> (Amra) same as in (i) Apply the paste also. For eating, take a pea sized tablet or a pinch of powder with warm water in the morning and evening. 10-12 days.</p> <p>(iii) Cut the stem of <i>Tinospora cordifolia</i> (Guduchi, Giloy) into pieces and crush it. Soak a clean cloth or handkerchief in its juice and let it dry in the air for a while. Shake it off (so that the hanging debris is separated) and tie it on the affected body parts. Wash it with hot water and do this twice. Wash the cloth before using it again. Along with this, give the extract of <i>Tinospora cordifolia</i> (Guduchi, Giloy) equal to the urad bean with honey twice a day for 10-12 days.</p>



	<p>For acute arthritis</p> <p>(i) Mix equal quantities of powder of root of <i>Carissacarandas</i> (Kanuda, Gadasur), powder of root of <i>Croton tiglium</i> (Nagdaanaa, Jayapala), and powder of root of <i>Mucuna pruriens</i> (Kawanch, Alkushi). Give one pinch each in the morning and evening with old jaggery or honey for 15-20 days.</p> <p>(ii) Grind equal quantities of <i>Carissa carandas</i> (Kanuda, Gadasur), root, <i>Capparis zeylanica</i> (Kanakchampa) root and <i>Tabernaemontanadivaricata</i> (Tagar, Chandni) root and make a powder or tablet, a pinch each, morning and evening with honey or old jaggery for 15-20 days.</p> <p>Along with this, do warm massage with Sanjivani, Hasuhar or other massage oils.</p>
<b>Miscellaneous</b>	
Fever	<p>(i) One tablespoon fresh leaf juice of Tulsi (<i>Ocimum sanctum</i>) is given daily as febrifuge till the fever subsides.</p> <p>(ii) A single fruit of Pipali (<i>Piper longum</i>) is given with a small amount of Gud daily for one month.</p>
Headache	<p>(i) The roots of <i>Calotropis procera</i>, <i>Gloriosa superba</i> and <i>Ricinus communis</i> fried in Arandi oil in 1:1:2 ratio &amp; the oil after filtration is rubbed over forehead.</p> <p>(ii) Tuberous root of Kalihari (100 g) - <i>Gloriosa superba</i> -is boiled in mustard oil (500 ml) &amp; the oil is rubbed on the forehead for instant relief. This is kept for months for ready use.</p>
Snakebite	<p>(i) One normal sized onion bulb is crushed with 4 fruits of Golaki (<i>Allium cepa+Pipernigrum</i>) &amp; applied on the bite mark. It is reapplied as many times as the paste turns green.</p> <p>(ii) The seed of Jaharmora (<i>Canavalia virosa</i>) is scratched &amp; placed over the scratched snakebite spot on the body. It absorbs blood like a sponge and swells. It is said that it detaches from the body only when all the venom has been absorbed by it.</p> <p>(iii) Papita (<i>Carica papaya</i>) seeds equalling the weight of 50 paise coin (approximately 3.8 gms) are crushed &amp; powder is dissolved in one glass cold water. This is offered at an interval of 3 hours for 3-5 times in snakebite and pesticide poisoning.</p>
Skin diseases	<p>(i) Grind the bark of <i>Terminalia arjuna</i> (Arjuna) and apply it.</p> <p>(ii) Grind the thorn of <i>Bombax malabaricum</i> tree and apply it.</p> <p>(iii) Mix three to four drops of <i>Carica papaya</i> (papaya) oil with <i>Pongamiaglabra</i> (Karanja) oil and apply.</p> <p>(iv) Rub with fresh peel of <i>Citrus aurantifolia</i> (lemon).</p>
Itching	<p>i) Apply <i>Pongamia glabra</i> (Karanja oil) alone or by mixing a little sulphur in it.</p> <p>(ii) Mix <i>Azadirachta indica</i> (Neem) oil with about one-fourth quantity of <i>Carica papaya</i> (papaya) milk and apply.</p> <p>(iii) Cook the root of <i>Hyptis suaveolens</i> (Nun Tulsi, Dhangadi Nacha) or the seeds of <i>Cassiaoccidentale</i> (Badi Chakod) or the leaves of <i>Cassiatora</i> (Chakod) in <i>Pongamiaglabra</i> (Karanja) oil or <i>Cocosnucifera</i> (Coconut) oil and filter the oil and apply.</p> <p>(iv) Make an ointment using <i>Azadirachta indica</i> (neem) leaves, round bulb of <i>Curcumalonga</i> (turmeric) and neem oil, apply it.</p>

**Different Formulations**

Leaf paste: is made from *Moringa oleifera* (drumstick, munga) leaves, *Aristolochia indica* (Ishwarmul) leaves, and *Ocimum sanctum* (Tulsi) leaves.

Decoction: *Adhatodavasica* (*Adusa*) leaves, *Acorus calamus* (*Vach*) root, *Aegle marmelos* (*Bel*) leaves, and *Nyctanthes arbor-tristis* (*Harsingar*, *Saparom*) leaves.

Powder: *Glycyrrhiza glabra* (*Yashtimadhu*/*Jethimad*), *Aristolochia indica* (*Ishwarmul*) root, and *Celastrus paniculata* (*Kujri*, *Malakangani*) root.

Oil: *Eucalyptus globulus* oil and *Celastrus paniculata* (*Kujri*, *Malakangani*) oil

Kheer: *Terminalia arjuna* (*Arjun*, *Kahuva*) bark powder mixed with kheer made from cow's milk.

Fruit pulp: *Artocarpus heterophyllus* (*Jackfruit*) seed cocoon pulp.

Herbal combinations: 14, Spice blends: 4, Fruit and herb combinations: 4, Oil and sugar combinations: 1, Milk and water combinations: 1. Administration Routes: Oral (24), Topical (3), Sucking (1). Various herbs, such as *Aristolochia indica*, *Glycyrrhiza glabra*, and *Adhatodavasica*, are used to treat respiratory ailments. Ginger, honey, and eucalyptus oil are commonly used ingredients in these remedies. Mint, basil and fruits like jackfruit are among the leaves and fruits used in various remedies. Decoctions and pastes are widely used. Most remedies are administered orally, emphasizing the significance of oral tradition in passing down these remedies. The combination of multiple ingredients in many remedies demonstrates the holistic approach of traditional medicine.

There are 5 different types of mixtures-

**Table 2: Medicinal Plant Species, Use Value, and Traditional Uses**

<i>Plant Name</i>	<b>Family</b>	<b>UV</b>	<b>Part Used</b>	<b>RF C</b>	<b>Uses</b>	<b>Appli cation</b>
<i>Acorus calamus L.</i>	Acoraceae	0.2 7	Root	2.3	Bronchitis	Oral
<i>Adhatodavasica Nees</i>	Acanthaceae	0.4 7	Leaves, root	3.0 2.1	Bronchitis, Tuberculosis (TB)	Oral
<i>Aegle marmelos (L.) Corrêa</i>	Rutaceae	0.4 2	Leaves, fruit pulp, leaves, fruit	2.8 1.8	Jaundice, Diabetes, Constipation, Bronchitis	Oral
<i>Alangiumsalvifolium Wang</i>	Alangiaceae	0.3 1	Root	2.1	Rheumatic disorders	Oral
<i>Allium cepa L.</i>	Amaryllidac eae	0.4 8	Fruits, bulb	2.2 2.1	Snakebite, Bronchitis	Topic al, Oral
<i>Alstoniascholaris R. Br.</i>	Apocynacea e	0.2 1	Powder	3.0	Stomach ache	Oral
<i>Ardisia solenacea Stapf</i>	Primulaceae	0.2 7	Bark powder	1.9	Ulcers	Oral
<i>Aristolochia indica L.</i>	Aristolochia ceae	0.4 7	Leaves, root	2.3 1.9	Pharyngitis, Laryngitis, Asthma, Stomach ache	Oral
<i>Bombax ceiba L.</i>	Malvaceae	0.4 2	Bark	2.8	Epilepsy	Topic al

<i>Bombax malabaricum</i> DC.	Malvaceae	0.3 1	Thorn	2.1	Skin diseases	Topical
<i>Calotropis gigantea</i> (L.) Dryand.	Apocynaceae	0.4 8	Root, flowers	2.6	Bronchitis, Asthma	Oral
<i>Calotropis procera</i> (Aiton) R. Br.	Apocynaceae	0.2 1	Roots	2.2	Headache	Topical
<i>Canavalia virosa</i> (Roxb.) Wight & Arn.	Fabaceae	0.3 5	Seed	1.8	Snakebite	Topical
<i>Carica papaya</i> L.	Caricaceae	0.3 9	Root, oil, seeds	3.1 2.5	Poliomyelitis (polio), Skin diseases, Snakebite	Topical, Oral
<i>Carissa carandas</i> L.	Apocynaceae	0.3 1	Root	2.8	Acute arthritis	Oral
<i>Cassia fistula</i> L.	Fabaceae	0.2 6	Root, fruit pulp	1.7	Poliomyelitis (polio), Constipation	Topical, Oral
<i>Celastrus paniculata</i> Willd.	Celastraceae	0.2 5	Root	2.1 1.9	Pneumonia, Tuberculosis (TB)	Oral
<i>Cissampelos pareira</i> L.	Menispermaceae	0.3 8	Root, root powder	2.8	Typhoid, Ulcers, Stomach ache	Oral
<i>Clerodendron infortunatum</i> Gaertn.	Lamiaceae	0.2 9	Leaves, root	1.3	Bronchitis, Pneumonia	Oral
<i>Combretum nanum</i> Buch.-Ham. ex D. Don	Combretaceae	0.2 2	Powder	1.6	Stomach ache	Oral
<i>Crotalaria juncea</i> L.	Fabaceae	0.3 4	Leaf powder	2.1	Loss of appetite	Oral
<i>Croton oblongifolius</i> Roxb.	Euphorbiaceae	0.2 4	Powder or bark	2.6	Stomach ache	Oral
<i>Croton tiglium</i> L.	Euphorbiaceae	0.2 8	Root	2.2	Acute arthritis	Oral
<i>Cuscuta reflexa</i> Roxb.	Convolvulaceae	0.2 3	Stem	1.8	Poliomyelitis (polio)	Topical
<i>Cynodon dactylon</i> (L.) Pers.	Poaceae	0.3 2	Grass	3.1	Epilepsy	Topical
<i>Desmodium triflorum</i> (L.) DC.	Fabaceae	0.2 5	Powder	2.8	Stomach ache	Oral
<i>Elaeodendron glaucum</i> (Rottb.) Pers.	Celastraceae	0.2 4	Bark	1.7	Pneumonia	Topical
<i>Eucalyptus globulus</i> Labill.	Myrtaceae	0.3 1	Oil	2.3	Laryngitis	Oral
<i>Ficus benghalensis</i> L.	Moraceae	0.2 9	Roots	2.5	Piles (Hemorrhoids)	Oral
<i>Foeniculum vulgare</i> Mill.	Apiaceae	0.2 8	Powder	1.9	Loss of appetite	Oral
<i>Gloriosa superba</i> L.	Colchicaceae	0.3	Roots	1.4	Headache	Topical

	e	7				al
<i>Glycosmis pentaphylla</i> (Retz.) Corrêa	Rutaceae	0.26	Juice	2.1	Loss of appetite	Oral
<i>Glycyrrhiza glabra</i> L.	Fabaceae	0.35	Powder	2.6	Epilepsy	Oral
<i>Glycyrrhiza glabra</i> L.	Fabaceae	0.34	Leaves	2.2	Pharyngitis	Oral
<i>Gymnemasylvestre</i> (Retz.) R. Br.	Apocynaceae	0.23	Root	1.8	Poliomyelitis (polio)	Topical
<i>Helicteresisora</i> L.	Malvaceae	0.22	Powder, Fruit	3.1 2.3	Stomach ache, Poliomyelitis (polio)	Oral, Topical
<i>Hemidesmus indicus</i> (L.) R. Br.	Apocynaceae	0.31	Root	2.8	Poliomyelitis (polio)	Topical
<i>Holarrhenaantidysenterica</i> (L.) Wall.	Apocynaceae	0.29	Powder, Bark powder, Root powder	1.7 1.6	Loss of appetite, Stomach ache, Constipation	Oral
<i>Ichnocarpus frutescens</i> (L.) R. Br.	Apocynaceae	0.28	Root	2.5	Typhoid	Oral
<i>Kaempferia galanga</i> L.	Zingiberaceae	0.27	Root	2.0	Typhoid	Oral
<i>Leucas cephalotes</i> (Roth) Spreng.	Lamiaceae	0.26	Panchanga, Fruits, flowers, leaves	2.1 1.5	Jaundice, Poliomyelitis (polio)	Oral, Topical
<i>Mentha viridis</i> (L.) L.	Lamiaceae	0.25	Leaves	2.6	Laryngitis	Oral
<i>Moringa oleifera</i> Lam.	Moringaceae	0.34	Leaves, Root	3.2 2.5	Bronchitis, Asthma, Poliomyelitis (polio)	Oral, Topical
<i>Mucuna pruriens</i> (L.) DC.	Fabaceae	0.23	Root	1.8	Acute arthritis	Oral
<i>Nyctanthesarbor-tristis</i> L.	Oleaceae	0.22	Leaves	3.1	Pneumonia	Oral
<i>Ocimum sanctum</i> L.	Lamiaceae	0.41	Leaves, Entire plant	2.8 2.3	Bronchitis, Asthma, Epilepsy, Fever	Oral, Topical
<i>Pavetta indica</i> Hand.-Mazz.	Rubiaceae	0.24	Bark powder	1.7	Ulcers	Oral
<i>Phyllanthus niruri</i> L.	Phyllanthaceae	0.26	Panchanga	1.5	Jaundice	Oral
<i>Piper longum</i> L.	Piperaceae	0.23	Fruits, Fruit	2.4 2.1	Bronchitis, Asthma, Fever	Oral
<i>Pongamia glabra</i> Vent.	Fabaceae	0.2	Oil	1.2	Itching	Topical



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<i>Pterospermum acerifolium</i> (L.) Willd.	Malvaceae	0.27	Flower powder	2.1	Jaundice	Oral
<i>Randiadumetorum</i> Lam.	Rubiaceae	0.26	Fruit	2.6	Asthma	Oral
<i>Rauwolfia serpentina</i> (L.) Benth. ex Kurz.	Apocynaceae	0.35	Powder	2.2	Stomach ache	Oral
<i>Ricinus communis</i> L.	Euphorbiaceae	0.24	Tender leaves, Roots	1.8 1.6	Jaundice, Headache	Oral, Topical
<i>Scoparia dulcis</i> L.	Plantaginaceae	0.23	Leaves, fruits, flowers	3.1	Jaundice	Oral
<i>Solanum indicum</i> L.	Solanaceae	0.32	Fruit	2.8	Tuberculosis (TB)	Oral
<i>Soymidafebrifuga</i> (Roxb.) Skeels	Meliaceae	0.21	Bark powder	1.7	Constipation	Oral
<i>Spondias pinnata</i> (L.) Kurz	Anacardiaceae	0.20	Bark	1.4	Rheumatic disorders	Oral
<i>Stereospermum suaveolens</i> (Roxb.) DC.	Bignoniaceae	0.19	Bark	1.8	Poliomyelitis (polio)	Topical
<i>Syzygium cumini</i> (L.) Skeels	Myrtaceae	0.28	Seeds	1.9	Diabetes	Oral
<i>Tamarindus indica</i> L.	Fabaceae	0.27	Leaves	2.1	Piles (Hemorrhoids)	Oral
<i>Terminalia arjuna</i> (Roxb.) Wight & Arn.	Combretaceae	0.26	Bark	2.9 1.9	Asthma, Skin diseases	Oral Topical
<i>Tinospora cordifolia</i> (Willd.) Miers	Menispermaceae	0.35	Vine, Stem	3.1 2.4	Poliomyelitis (polio), Rheumatic disorders	Topical

The study reveals that the plant materials utilized and the methods employed in preparing traditional plant medicines, including administration routes and dosages. Local medicine practitioners (Baidhyas) were interviewed to collect information about medicinal plants and their uses. Different formulations were documented and confirmed through herbal medicine practitioners. The ethnomedicinal plants were identified with the help of studies on the Flora of Ranchi District, Ghosh, 1971. Interview techniques were employed to gather ethnomedicinal information from knowledgeable persons,

patients, and visits to different localities. Books on plant taxonomy, such as flora, were consulted, and botanical names of species were cross-checked with earlier published literature, Boddington, (1925), Hembrom (1994), Pal and Jain (1998). The new scientific names were verified and adopted from [www.indianbiodiversity.org](http://www.indianbiodiversity.org) (IBIS) and [www.theplantlist.org](http://www.theplantlist.org) of Royal Botanic Gardens, Kew, UK.

#### **Use value (UV) and relative frequency of citation (RFC)**

The species with the highest Use Value (UV) scores are: *Allium cepa* L. - 0.48,

*Calotropis gigantea* (L.) - 0.48, *Adhatodavastica* Nees (0.47), *Aristolochia indica* L. (0.47), *Aegle marmelos* (L.) *Corrêa* (0.42), *Bombax ceiba* L. (0.42), *Ocimum* - L. - 0.41, *Glycyrrhiza glabra* L. - 0.35, and *Rauwolfia serpentina* (L.) *Benth. ex Kurz*-0.35. indicating their relative importance as medicines in the study area. The UV score is a measure of the usefulness of each species as a medicine, with higher scores indicating greater usefulness.

The species with the highest Relative Frequency of Citation (RFC) scores are: *Moringa oleifera* Lam. 3.1, *Carica papaya* L. 3.1, *Cynodondactylon* (L.) *Pers.* - 3.1, *Helicteresisora* L. - 3.1, *Scoparia dulcis* L. - 3.1, *Ocimum sanctum* L. - 2.8, *Aegle marmelos* (L.) *Corrêa* - 2.8, *Calotropis gigantea* (L.) *Dryand.* - 2.6, *Glycyrrhiza glabra* L. - 2.6, and *Allium cepa* L. - 2.2 indicating that they are the most frequently cited as being used for medicinal purposes by the key participants, with higher scores indicating greater frequency of citation, and suggesting that these species are widely recognized and utilized for their medicinal properties.

The study's outcomes highlight the need for further research into the efficacy and safety of herbal remedies. Documenting traditional data and practices can help to endorse the preservation of medicinal plants and the development of sustainable healthcare practices. Furthermore, integrating traditional medicine with contemporary healthcare can provide more comprehensive and effective treatment options for various ailments.

The study's findings have implications for policy and practice. Recognizing and promoting traditional medicinal knowledge empower local people and promote their involvement in healthcare decision-making. Furthermore, developing sustainable healthcare practices that integrate traditional medicine can help reduce the burden on modern healthcare systems and promote more equitable

access to healthcare.

### Conclusion

The traditional remedies of Jharkhand's tribal people offer a wealth of knowledge on the use of medicinal plants for various ailments. The study's findings highlight the significance of conserving traditional knowledge and promoting its integration with modern medicine. The use of therapeutic plants, combined with the traditional healers' wide knowledge and skill, provides an exceptional and effective approach to healthcare. In addition, the study's findings have implications for the progress of new drugs and therapies, as well as for the conservation of medicinal plants. The use of therapeutic plants, combined with the traditional healers' wide knowledge and skill, provides an exceptional and effective approach to healthcare. Besides, the study's findings have implications for the progress of new drugs and therapies, as well as for the conservation of medicinal plants. As the world grapples with the challenges of healthcare, the traditional healing practices of Jharkhand's tribes offer a valuable contribution to the global healthcare landscape. Only through prompt documentation, the development and application of appropriate conservation plans for the plants, and the social development of those connected to them can these conceptions of time and ages be preserved. Prior to being used in mainstream healthcare, these formulations must also be standardized, which can only be accomplished by pharmacologically characterizing them. It is essential that we respect, recognize, and promote the traditional knowledge and practices of indigenous societies, and work towards integrating them into modern healthcare systems to provide more effective, comprehensive, and sustainable healthcare solutions.

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