

# A qualitative study to explore the ethnomedicine practices towards hepatitis among the Irula traditional healers in Tamil Nadu, India

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## ABSTRACT

**Introduction:** Irulas are known for their traditional medicine and healing practices. Ethnomedicine primarily describes the traditional medical approaches that take consideration of the cultural perspectives on health, illness, disease while addressing the delivery of healthcare and therapeutic modalities. The current study explores the ethnomedical practices towards hepatitis among the Irula traditional healers in Tamil Nadu. **Methodology:** A Community-based in-depth interview (IDI) study was conducted among eight traditional healers (5 males and 3 females) from Irula settlements in Dharmapuri, Kancheepuram, and Chengalpattu districts. Apart from traditional healers, 11 Irula adults were interviewed to understand their cultural perspectives on health and illness. **Results:** The major themes that emerged from the codes were the perception towards traditional healing and the process of treatment on hepatitis, the list of important conditions treated by the traditional healers, and the list of medicinal plants used for treating people. **Conclusion:** This qualitative study highlights the voices of the Irula tribal community and offers a rich source of information about ethnomedicine practices towards hepatitis among the Irula traditional healers in Tamil Nadu, India.

**Keywords:** Ethnomedicine, Irula, medicinal plants, traditional healers, treatment

## Introduction

According to science, “traditional medicine” is the subject of “ethnomedicine.” Among the ethnic communities, their rituals and orally passed-down knowledge through generations have changed during the course of human evolution. Ethnomedicine primarily describes the traditional medical approaches that take into consideration with cultural perspectives on health, illness,

and disease and that address the delivery of healthcare and therapeutic modalities.<sup>[1,2]</sup> The study of natural pharmaceuticals and the ethnic group to which the same pharmacologically active components also belong are both included in the wide inter-disciplinary field of ethnomedicine.<sup>[3]</sup> It has been widely used in numerous ancient cultures, from Indian Ayurveda to Traditional Chinese Medicine (TCM) of China and from Muti of Africa to Unani medicine of Mughal India.

Hepatitis is one of the world’s health challenges, and it poses numerous negative impacts on the quality of life of the affected individuals. The issues faced by these patients are stigma, distress, social exclusion, and financial problems.<sup>[4]</sup> According

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E-mail: alexjosephdr@gmail.com

Received: 19-08-2022

Revised: 03-11-2022

Accepted: 09-11-2022

Published: 28-02-2023

### Access this article online

#### Quick Response Code:



Website:  
www.jfmipc.com

DOI:  
10.4103/jfmipc.jfmipc\_1648\_22

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**How to cite this article:** Kumar D, Peter RM, Kaur H, Joseph A. A qualitative study to explore the ethnomedicine practices towards hepatitis among the Irula traditional healers in Tamil Nadu, India. J Family Med Prim Care 2023;12:371-5.

to World Health Organization (WHO), hepatitis has become a major health burden, particularly in developing countries. Many chronically infected people acquire liver cirrhosis or liver cancer. Stigma may also prevent those at risk from being tested, taking treatment when needed, and seeking help to reduce their risks. Understanding the phenomena is critical because, it can inform the policy makers the conceptions and stigma regarding hepatitis prevention among the tribal communities.<sup>[5,6]</sup>

The current study was part of a larger ICMR-funded project to establish public private partnership (PPP) for viral hepatitis prevention, by providing training and to enhance the Irular community's knowledge on viral hepatitis. The project had brainstorming sessions with the private clinicians, primary health care (PHC) clinicians, nurses, and government workers. The primary care physicians serving Irula community were not fully aware of the traditional knowledge of ethnomedicine towards hepatitis. The current study was warranted to explore the ethnomedicine practices towards hepatitis among the Irula traditional healers in Tamil Nadu.

## Materials and Methods

### Study design and sampling strategy

A Community-based in-depth interview (IDI) study was conducted among the traditional healers (5 males and 3 females) from Irula settlements at Dharmapuri, Kancheepuram, and Chengalpattu districts. Apart from them 11 Irula adults were included in the study to understand their cultural perspectives on health and illness. Purposive sampling technique was used to recruit the study subjects for in-depth interview study, conducted from March 2021 to September 2021.

### Participants and recruitment

The participants included Irula traditional healers who serving the Irula community who consented to participate in the face-to-face interview. The adult members were also recruited in the study for eliciting the perceptions. The healers were recruited through snowballing sampling method, and the adults via purposive sampling method. The first contact with the study participants was made by the principal investigator. The researcher explained the level of involvement of participants and answered any potential questions of the participants. The researchers also explained the need for an audio-taped interview to have an exact recording of their experience that would assist the researchers in the analysis of data. The risks and benefits of the study, measures taken to ensure confidentiality, the voluntary nature of participation, the ability to withdraw from the study without penalty, and research data protection procedures were explained during the informed consent process.

### Data collection process

Data for this study were gathered through a semi-structured, in-depth interview, focus group discussion, and field notes taken by the researchers when participants were observed. The interviews took place in a quiet area. In addition, prior to the

audio-taped interviews, participants submitted the consent form. The interview began with a casual talk from the researcher. The goal of this informal conversation was to create a rapport with the participants in order to build trust. There was no clear process to follow in terms of specific inquiries. During interviews, the following questions were used as prompts: "What does Hepatitis imply to you?", "How should Hepatitis management be approached?", "How has hepatitis changed people's lives?", and how has the sickness affected social life? At the end of each interview, the researchers gave each participant the option to contribute to the discussion by asking, "Is there anything more that you think is significant which you would like to add?" The interview sessions lasted between 40 and 60 minutes. As soon as possible, each interview was transcribed verbatim into a word processor. Following verbatim transcription, the researchers examined the transcripts while listening to the tapes to ensure that the contents were accurate before analysing them. The researchers then began analysing the data from the written transcripts.

### Data analysis

A thematic analysis was used to analyse the data. The first stage of the analytic process was the preparation of an interview guide including broad and open-ended questions which allowed the participants to express their viewpoints comprehensively. The transcripts were read numerous times and reviewed line by line in the second stage to identify the participants' descriptions of cognitive patterns, feelings, and behaviours connected to the topics addressed in the interviews. The text was separated into condensed meaning components. The condensed meaning units were abstracted and labelled. The generated codes were written in the participant's words in an attempt to preserve the meaning of the data. The codes were organised into categories and sub-categories to form the manifest content. Following a period of contemplation and discussion, it was decided how to organise the codes. Finally, the underlying meaning or latent content of the categories was articulated as a theme.

### Study rigour

For this purpose, several strategies were utilised to evaluate the credibility of data, including peer debriefing, seeking for disconfirming evidence, and sustained engagement with data. The final categories were chosen by the full research team. The research methodologies were used and carefully described so that readers could follow the study process. Finally, conformance was evaluated by the researcher's efforts to disclose all phases of the investigation, allowing the reader to explore the data.

## Results

The major themes that emerged from the codes are described below in detail with illustrative quotes from the data.

- Perception towards traditional healing and the process of treatment on hepatitis
- List of important conditions treated by the traditional healers
- List of medicinal plants used for treating people

## Perceptions towards traditional healing and the process of treatment on hepatitis

Traditional healers in the Irula community believe that the majority of the diseases can be cured by their traditional healing practices with the help of herbal and medicinal plants. The majority of the traditional healers of the Irula tribes tend to perceive that the Irula tribes are at risk of acquiring diseases. They are having a positive perception when it comes to treating the diseases. A middle-aged female traditional healer from the Kancheepuram district said the following:

*“According to the Irula traditional healers, the disease is classified into two groups: hot disease and cold disease. If the individual is affected by hot disease they will provide cold treatment, if the individual is affected by cold disease, they will provide hot treatment. According to Irula healers Hepatitis is a hot disease, so the traditional healers will provide cold treatment like drinking water/tender coconut in empty stomach, taking bath in lukewarm or cold water (instead of hot water), taking lots of fluids, and consuming cold and bland food (e.g., Curd rice, porridge, idly and dhal rice) and medicinal plant namely Keezhanelli (Phyllanthus niruri) as a remedy/treatment for Hepatitis”.* (Names and identities of the respondents are not revealed to protect the identity of participants)

One of the traditional healers reported:

*Affected individuals had perceptions that others were uncomfortable around them and said individuals are careful to whom they disclose their diagnosis.*

## Symptoms of Hepatitis

According to the traditional healers vomiting, less urine output, yellow colour discoloration of urine and eyeballs, decreased vision, swollen stomach, changes in body temperature, fatigue, and weakness were the common symptoms of hepatitis.

## Diagnosis of Hepatitis

An elderly male 69 years old traditional healer from Dharmapuri district reported the *practice of soaking boiled white rice overnight in the urine of the suspected Hepatitis patients will help them to find/ diagnosis the Hepatitis Infection. If the white rice changes the color from white to yellow after the overnight soaking it was considered as a confirmation of Hepatitis infection. If its dark brown or red in color, they assume that the condition is worse and the infection is involved with blood* also, so the traditional healers will advise the affected individual to visit the hospital as soon as possible. However, if it is light yellow in colour, they will start their traditional healing practice with some diet modification.

A middle-aged female traditional healer from Kancheepuram district described the following:

*If the urine, eyes are yellow in colour, then the individual is affected by Hepatitis. If the disease gets involved in blood, urine will be red in colour, and this indicates disease is severe and it affects the liver, we have to give treatment in order to save the life of the affected person. One has to take the medicines 3 to 4 times a day to recover from the disease. If the severity of the disease increases, they would feel the pain in the liver and the medicine should be prescribed for 5 to 6 times per day.*

## Diet (Pathiyam) pattern and treatment for hepatitis

Keezhanelli (*Phyllanthus niruri*) is an important medicinal plant when it comes to treating the jaundice and liver-related diseases. A middle-aged female traditional healer from Chengalpattu district described the treatment of hepatitis as follows:

1. We need to collect 10–15 Keezhanelli leaves and clean them with water.
2. After the cleaning, we can dry the leaves or we can use a fresh leaf along with butter milk or with goat milk.
3. The affected individual needs to drink this liquid for 48 days (it is called oru mandalam) or for a specific period, if the condition is worse.

## Diet pattern

Pathiyam is a term used to address the diet pattern to treat the disease. According to Irula healers from Chengalpattu district, hepatitis is a hot disease, so the traditional healers will advise to drink enough water/tender coconut in empty stomach, taking a lot of fluids, and consuming cold and bland food (e.g., curd rice, porridge, idly, and dhal rice) as a diet for hepatitis.

## List of important conditions treated by the traditional healers

We have studied the morbidity patterns of the Irula tribes from the qualitative study conducted among the Irula community members/traditional healers. Diseases such as fever, cough, cold, headache, body pain, hypertension, diabetes mellitus, cut wound injury, fracture, anaemia, dysmenorrhoea, diarrhoeal diseases, animal bite, insect bites, skin issues, renal stones, and fistula are treated by the traditional healers. Traditional healers claim to heal these conditions with the help of herbs and medicinal plants, and they often try to regulate the disease conditions by regulating their dietary patterns.

One of the traditional healers reported:

*Fever, cough, cold, headache, and body pain are very common during the rainy season, especially from Tamil month namely Aadi maasam to Maasi maasam.*

## List of Medicinal Plants used for treatment

Kaya tuber, Java tea is believed to reduce salt content in the body, purify the blood, and aid in removing bile. Tulsi is known for its property to cure common cold; Kallu Katti Karaiyum Sedi, Kattu Karula is chosen for the common krait bite. The fruit of ‘Kattu Karula’ is used to check whether the snake bite victim has been poisoned by the snake venom. After eating the fruit, if it tastes bitter, then the affected individuals have been poisoned by snake. There are about 37 types of medicine (powder) only to treat poisonous bite. They claim to cure all poisonous snake bites, Indian Cobra, Russell’s viper, and Saw Scaled Viper. A temple priest from the Dharmapuri district who is in his thirties was one of the traditional healers who recalled about the use of tortoise shells and the internal organs to treat uterine complaints by the older generation.

## Other traditional practices

In terms of treatment of illness, the community/tribe usually waits a few days with home remedies and/or traditional medicines. Natural remedies are commonly used first. The traditional healer usually uses oil, medicinal plants, and leaves as medicine. The traditional healer diagnoses hepatitis by the colour changes in the urine. Sometimes, even for serious mental health disorders, they tend to believe witch doctors and temple. People who suffer from any condition will seek out traditional healers because they have remedies for most minor ailments such as fever, cough, headache, body pain, diarrhoea, and other ailments. If the individual is not cured, the traditional healer advises to go to the hospital.

One of the traditional healers reported:

*I give medicines for various insect bites, snake bites, and allergies caused by certain vegetables I would ask them for any cooking oil. I would add the medicinal plant in any of the cooking oil and if the oil turns green in color, I would transfer the medicine into a bottle. The bottle should be tightly sealed. The affected individual should take the medicine early morning on empty stomach, minimum the individual should take 3 teaspoon for one or two times a day.*

## Cultural factors and beliefs towards hepatitis

People in the Irula community had the habit of consuming mud cake (eating soil). Irula hold the opinion that hepatitis can be spread through eating various types of soil and through innocuous contact such as touching, hugging, shaking hands, or sharing a plate with someone who has the disease. People in this community believe eating from the same plate as someone who has hepatitis could result in the spread of the disease. Hepatitis is often said to be a terrible prognosis disease that eventually results in death. Another belief held about hepatitis by the people is that people who have been cursed for some kind of wrong doing not respecting or taking care of their parents will develop disease.

*One of the mothers reported from Chengalpattu district:*

*When my neighbor's baby got affected by hepatitis, her neighbors and community people advised putting the baby under the morning sun.*

## Discussion

Current study explored the ethnomedicine practices towards hepatitis among the Irula traditional healers in Tamil Nadu, India. Similar to the Yin-Yang (cold-hot) theory of disease,<sup>[7]</sup> the traditional healers also treat the individual with hot and cold methods. According to them, hepatitis is a hot disease which needs cold treatment. An extensive ethnopharmacological survey was carried out in the Peruvian Amazonian district of Loreto assessed the 35 plants with assessment of their anti-viral and cytotoxic activities against Hepatitis C Virus (HCV).<sup>[8]</sup> Our study found various traditional medicine plants, and there are about 37 plants which help to treat various poisonous bite.

There exist lot of inaccurate knowledge, as indicated by beliefs about hepatitis and a lack of understanding of hepatitis transmission routes,<sup>[9,10]</sup> which is comparable with our study findings. Participants felt that hepatitis virus causes mental health effects in infected individuals. Many patients fear that they are going to die and may not survive.<sup>[11,12]</sup> The same trend was observed among the Irula community people. The patient's lack of understanding, medical emphasis on disease consequences, and stigma expressed emotional reactions and the same perception was also found to exist in other qualitative studies,<sup>[13]</sup> which is similar with our study findings. Participants concealed their infection for various reasons and inform their family members, colleagues, and healthcare personnel. The participants thought that they would not receive assistance from them if they alerted others of their sickness. This perception was found similar to the studies performed in developing countries. Chronic hepatitis patients had psychological problems.<sup>[14]</sup> Irula people's perception is very similar with the study findings. Few people believe that spiritual healing is often used to cope with life-altering events such as chronic illness.<sup>[15,16]</sup> Irula tribal population tends to believe traditional healers and spiritual leaders for treating disease.

## Conclusion

This qualitative study highlights the voices of the tribal community and offers a rich source of information about ethnomedicine practices towards hepatitis among the Irula traditional healers in Tamil Nadu, India. Health policy experts and policymakers should buy in from the ethnomedicine practices which can inform the policy implementations. There is an urgent need to establish regular health education programs, especially in view of the possible influence of a mass media misinformation on hepatitis, and due to the Irula communities inherited perceptions, cultural factors, and stigma for Hepatitis. By strengthening the healthcare system on the early detection, diagnosis and treatment of hepatitis/viral hepatitis may help reduce the burden of disease.<sup>[17]</sup>

## Ethics approval and consent to participate

The study was approved by the Institutional Review Board (IRB) of SRM School of Public Health, SRMIST, Kattankulathur, and Tamil Nadu, P0/2019/001 (IRB protocol number). Participants were ensured about keeping personally identifiable information confidential and the transcriptions and the audiotapes secured and anonymous. The authors certify that all appropriate participant consent forms were obtained. The participants understand that their names and initials will not be published.

## Acknowledgements

We would like to thank our Study participants who took part in this study, all the village panchayat presidents, and SRM School of Public Health.

## Financial support and sponsorship

The study conducted was partially funded by the Indian Council of Medical Research (ICMR).



## Conflicts of interest

There are no conflicts of interest.

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