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Health Challenges Among Muthuvan Tribes In Munnar Panchayat, Kerala: A Sociological Analysis

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The tribal communities of Kerala represent a culturally rich yet socially vulnerable section of the population. Among them, the Muthuvan tribe residing in Munnar panchayat, Devikulam Taluk of Idukki district faces distinctive health challenges shaped by geographical isolation, socio-economic marginalization, and environmental changes. Although tribal groups possess extensive indigenous ecological knowledge and traditional health practices, limited access to institutional healthcare, persistent poverty, and exposure to forest-based environmental risks have resulted in increased susceptibility to communicable and vector-borne diseases. According to Census 2011 data, Scheduled Tribes constitute 8.6% of India's population (10.43 crore), with Kerala accounting for 1.45% of the state population (4,84,839 persons). Idukki district alone houses nearly 50,000 tribal people distributed across forest and remote settlements.

Despite government interventions such as mobile medical units, the Snehahastham programme (2024), and special health camps for Particularly Vulnerable Tribal Groups (PVTGs), structural health disparities persist. This study adopts a sociological perspective to analyze the intersection of culture, environment, state policy, and health among the Muthuvan tribe. It highlights how deforestation, modernization, and socio-economic transformation disrupt traditional healthcare systems while failing to fully integrate tribal populations into mainstream medical infrastructure. The paper argues for very location of the residence,culturally sensitive, community-based health interventions that respect indigenous knowledge systems while ensuring equitable healthcare access.

KEYWORDS: Tribal, Health, Government, Intervention, Challenges.

Introduction

A tribe, as defined by the Cambridge Dictionary, refers to a group of people who live together sharing a common language, culture, and history, especially those residing outside urban settings. This definition underscores both the geographical concentration and emotional bonding that characterize tribal communities. In India, tribal societies form a significant demographic and cultural component. With 705 Scheduled Tribes (STs) and sub-tribes, India

has one of the largest tribal populations globally, second only to Africa. As per Census 2011, tribal people constitute 10.43 crore, or 8.6% of the total population.

Kerala, though recognized for its high human development indicators, reflects a contrasting reality for its tribal communities. The state has 36 identified Scheduled Tribes, numbering 4,84,839 persons (1.45% of the state's population). Districts such as Wayanad (31.2%) and Idukki (11.5%) record significant tribal concentrations. The tribal communities of Kerala include Paniya, Irular, Kurichiyan, Kattunayakan, Kuruman, and Muthuvan, among others. While Kerala boasts high literacy rates overall, tribal literacy (75.81%) remains significantly lower than the state average, indicating educational and social disparities.

TRIBAL CONTEXT OF MUNNAR PANCHAYAT, IDUKKI DISTRICT

Idukki district, historically part of the ancient Tamil ecological region known as "Kurinchi," is home to multiple tribal groups including Mannan, Muthuvan, Malaarayan, Mala-pulayar, and Paliyar. Many of these groups migrated from the plains of Kerala and Tamil Nadu between the 13th and 14th centuries and were the sole inhabitants of the hilly tracts until the 19th century migration of non-tribal populations.

According to Census 2011, Idukki has a total population of 11,07,453, with approximately 50,000 tribal individuals (4%). These communities are distributed across 181 forest settlements, 91 non-forest settlements, and five isolated regions. Traditionally hunters and gatherers, they later adopted forest-based cultivation and sustainable livelihood practices. Their close association with nature is reflected in their cultural practices, food habits, and indigenous medical knowledge.

It said that the name Munnar is a combination two words Munnu and Aaru in Tamil and Malayalam languages. The meaning of these words are three rivers. To put it very clear it refers to it location at the confluence of the three rivers, Muthirapuzha, Nallathanni and Kundalai. Muthuvan and Malayaravan were the Hunter and gatherer in the Munnar region for thousands of years.

THE MUTHUVAN TRIBE AND HEALTH VULNERABILITIES

The Muthuvan tribe, primarily residing in Munnar Panchayat, Devikulam Taluk, maintains distinct linguistic and cultural practices, with their language closely related to Tamil. Historically dependent on forest resources, their lifestyle ensured minimal ecological damage and sustained environmental harmony. However, recent decades have witnessed significant transformations due to deforestation, land alienation, and modernization.

From a sociological standpoint, health challenges among the Muthuvan tribe cannot be understood merely as medical issues but as outcomes of structural marginalization. Living in remote forest settlements with limited infrastructure, they face:

1. Inadequate access to primary healthcare facilities
2. Prevalence of skin infections and respiratory illnesses
3. High incidence of vector-borne diseases due to forest exposure
4. Malnutrition and maternal health issues
5. Gradual erosion of traditional herbal medicinal practices

Although the Government of Kerala has implemented initiatives such as 13 mobile medical units, the Snehahastham Programme (2024), special health camps for PVTGs like the

Cholanaikayan, and the Valamthode Tribal Hub, gaps remain in service delivery, cultural sensitivity, and sustained community engagement.

SOCIOLOGICAL SIGNIFICANCE OF THE STUDY

Health among tribal populations must be examined within the framework of social exclusion, cultural transition, ecological displacement, and state policy. The Muthuvan tribe represents a community negotiating between traditional ecological knowledge systems and modern healthcare structures. Their vulnerability arises not only from geographical isolation but also from systemic inequalities embedded in education, livelihood, land rights, and public health access.

This study therefore seeks to analyze the health challenges of the Muthuvan tribe in Devikulam Taluk through a sociological lens, emphasizing the interconnectedness of environment, culture, policy, and health outcomes. It argues for inclusive, participatory, and culturally responsive health strategies that bridge indigenous knowledge and modern medical systems while ensuring dignity and social justice for tribal communities.

NEED FOR THE STUDY

The tribal communities of Kerala, particularly the Muthuvan tribe residing in Munnar panchayat, Devikulam Taluk of Idukki district, continue to face multidimensional health vulnerabilities despite progressive state policies and welfare interventions. While Kerala is celebrated for its advanced public health system, this achievement has not been equitably distributed among its tribal population living in remote and forested regions.

The Muthuvan tribe represents one of the significant Scheduled Tribes in the hill tracts of Idukki distriact of Kerala. According to Census 2011, the Scheduled Tribe population in Idukki district, a considerable proportion of tribal communities depend on marginal farming, forest produce collection, plantation labour, and construction work—occupations characterized by instability, low income, and occupational health risks.

Although the Government of Kerala has implemented targeted schemes under the National Health Mission (NHM) and the Scheduled Tribe Development Department, structural gaps remain between policy design and grassroots accessibility. Tribal Mobile Medical Units (13 units across Kerala, including two in Idukki), the Snehahastham Programme (2024) conducted in collaboration with the Indian Medical Association (IMA), and initiatives such as the Valamthode Tribal Hub aim to deliver healthcare to remote populations. Specific interventions address anemia, diarrhea, sickle-cell anemia, and malnutrition—particularly in regions like Attapadi. Furthermore, Kerala has been among the first South Indian states to systematically screen and manage sickle-cell anemia and thalassemia among tribal communities.

THE OBJECTIVES OF THE STUDIES

Given these realities, there is an urgent need to undertake a focused sociological study on the health challenges of the Muthuvan tribe in Munnar panchayat, Devikulam Taluk. Such a study becomes essential to:

1. To examine the gap between government health schemes and ground-level accessibility.
2. To understand the cultural dimensions influencing healthcare-seeking behaviour.

3. To analyze the impact of discrimination and social exclusion on health utilization.
4. To evaluate the effectiveness of tribal-specific interventions.
5. To propose culturally sensitive and community-centered health strategies.

By situating health within the broader framework of social inclusion, ecological change, and state policy, this study seeks to contribute to a more equitable and participatory tribal healthcare model in Kerala. It aims to bridge the disconnect between modern healthcare infrastructure and indigenous knowledge systems, ensuring that development interventions respect tribal identity while addressing urgent health needs.

RESEARCH APPROACH AND DESIGN

Study area; The present empirical study was conducted in Muthuvakkudi, a tribal hamlet in Munnar Panchayat, Devikulam Taluk of Idukki district, Kerala. The name "Muthuvakkudi" denotes the dwelling place of the Muthuvan tribe. The hamlet is located in a remote, hilly, and forested region between Aruvikkadu Estate and Kundumalai estate, to mention more specific the land mark is just three Kilo meters form the Eco point located at equal distance between Munnar and Top station with 17 Kilo metre each side. This residencial area is with limited transport and communication facilities. The geographical isolation of the settlement significantly influences access to healthcare and shapes the community's health practices.
An explanatory research design was adopted to examine the health challenges of the Muthuvan tribe from a sociological perspective.

Universe, Sampling, and Tools of data collection; The hamlet, created exclusively for the Muthuvan consisted of only thirty-six families. Since the universe is very small, the census method of sampling was adopted, covering all households in the hamlet. Primary data were collected using a structured interview schedule administered to household members. Focus Group Discussions were conducted with women, elderly persons, and youth to understand traditional health practices, perceptions of modern healthcare, and barriers in accessing medical services. Participatory observation was also employed to gain insights into living conditions, sanitation practices, and environmental exposure.
Due to language differences, two local key informants assisted in translation and interpretation. Voice recordings, video documentation, and field notes were used to ensure accuracy and validity. Data were analyzed through thematic interpretation and cross-verification with recorded materials and key informants. The study was limited to one hamlet due to time constraints under the RUSA 2.0 project, and the absence of local accommodation restricted prolonged observation.

MAJOR FINDINGS AND OBSERVATION:

The findings of the present study reflect the complex intersection of geographical isolation, socio-economic conditions, cultural practices, and institutional gaps influencing the health status of the Muthuvan tribe in Muthuvakkudi hamlet of Devikulam Taluk. Although certain basic amenities such as housing, electricity, and water supply are available, the community continues to experience significant barriers in accessing quality healthcare, education, and livelihood opportunities. The health vulnerabilities observed are not merely medical in nature

but are deeply rooted in structural marginalization, poor connectivity, language barriers, and limited institutional outreach.

FINDINGS:

1. They live on the slope of hill and in the midst of tea estates, forests and wildlife sanctuaries and water sources like dame.
2. They are engaged in honey collection and other forest produce and sell them to the workers in the TATA tea estates nearby like Arivikkadu, East division, madupatti, Kundumalai etc.,
3. The majority of households (84%) follow a nuclear family structure, with most families residing in their own pucca houses constructaed by the Governmnet of Kerala.
4. Basic facilities such as electricity and water supply are available, though water sources are not always safe or protected.
5. Educational attainment is generally low, with only a small percentage (16%) having higher education qualifications.
6. A large proportion of residents (63%)depend on plantation labour, marginal farming, coolie work, and private employment, with some members migrating temporarily for livelihood.
7. The nearest health and educational facilities are located several kilometres away, Kundumalai Estate run by Tata Tea Estate and the absence of proper roads severely restricts mobility.
8. Referral service is in Munnar Governemnt Hospital located in 30 KM away from it.
9. Transportation facilities are highly limited, with only one jeep service operating once or twice daily, creating serious challenges during emergencies.
10. Language differences, particularly the use of "Muthu Mozhi," create communication barriers between the community and government officials, affecting service delivery.
11. Government welfare schemes have not effectively reached the hamlet due to geographical isolation and administrative gaps.
12. The community primarily relies on traditional herbal medicine and local vaidyars for treatment of common ailments.
13. Malnutrition, anemia, skin infections, respiratory problems, and gastrointestinal diseases are prevalent.
14. Inadequate sanitation and unsafe water sources contribute to hygiene-related illnesses.
15. Emergency healthcare access is delayed due to distance, poor connectivity, and lack of timely transport.

Despite government allocations and policy initiatives for tribal welfare, the actual implementation at the grassroots level appears weak. The community continues to depend heavily on traditional medicinal practices, partly due to cultural continuity and partly because of limited trust and accessibility to institutional healthcare. Language barriers, irregular functioning of educational and welfare institutions, absence of NGOs, and declining transmission of indigenous medicinal knowledge further complicate the situation. The health issues observed are closely linked with poverty, low literacy, nutritional insecurity, and occupational exposure in forest and plantation environments. Therefore, improving tribal

health in this region requires not only infrastructural development but also culturally sensitive, community-based interventions that bridge traditional knowledge systems with modern healthcare services.

CHALLENGES IDENTIFIED

The following are the challenges encountered by the Muthuvan tribes in the study area,

1. Despite the state government of Kerala has created health infrastructure, care services, timely reach and cultural integration remain major challenges.
2. The overall observation of the study indicates that geographical remoteness remains the central factor intensifying health challenges among the Muthuvan tribe.
3.
4. The foremost challenge is limited access to healthcare facilities due to distance, lack of roads, and poor transport connectivity.
5. The scattered nature of settlements, poor transport connectivity, lack of emergency access, and difficult terrain delay critical medical intervention.
6. Emergency care is particularly difficult to access, especially for pregnant women and critically ill patients.
7. Poverty and irregular income restrict the ability to afford private medical treatment or transportation. Language barriers and cultural differences create mistrust and misunderstanding between healthcare providers and the tribal population.
8. Experiences of social exclusion in the society nearby and institutional discrimination in government hospitals in Munnar further discourage institutional healthcare utilization.
9. Upgrading Primary Health Centres (PHCs) and sub-centres has improved infrastructure on paper, yet accessibility remains limited for forest-dwelling populations.
10. Studies indicate that nearly 50% of tribal people from nearby regions reported experiencing discrimination while accessing healthcare facilities.
11. This type of discrimination experiences not only violate fundamental human rights but also discourage tribal communities from seeking institutional medical care.
12. Because of which many revert to traditional medicinal systems, which, although culturally embedded and ecologically grounded, may not suffice in cases of acute or chronic illness.
13. The gradual process of modernization has not fully integrated tribal communities into mainstream development.
14. The Muthuvan tribe continues to uphold traditional marriage systems, worship rituals, community governance structures, and indigenous medicinal practices.
15. These cultural elements form the backbone of tribal identity, the erosion of forest ecosystems and deforestation threaten their traditional herbal knowledge base.
16. Simultaneously, environmental exposure contributes to recurring health issues such as skin infections, respiratory illnesses, vector-borne diseases, anemia, and malnutrition.

17. The persistence of poor health outcomes directly affects labour productivity in plantation and forest-based occupations, thereby reducing family income and intensifying the cycle of poverty and vulnerability.
18. Health insecurity thus becomes not merely a medical issue but a sociological problem linked to marginalization, livelihood instability, cultural transition, and structural inequality.
19. Another significant challenge is the gradual erosion of traditional medicinal knowledge without adequate integration into formal healthcare systems.
20. Traditional healers continue to serve the community, the absence of formal recognition and training weakens the continuity of indigenous health practices.
21. The lack of active NGOs, irregular health camps, absence of dental and diagnostic services, and delayed emergency response further compound the health risks.
22. The community also faces nutritional insecurity, inadequate sanitation, limited health awareness, and insufficient early detection of diseases. These interconnected challenges reinforce a cycle of vulnerability that affects not only health but also education, livelihood, and overall social development.

CONCLUSION

The study concludes that the health challenges faced by the Muthuvan tribe in Muthuvakkudi hamlet are deeply rooted in geographical isolation, socio-economic marginalization, limited institutional outreach, and cultural barriers rather than merely in medical deficiencies. Although certain basic amenities are available, the lack of accessible healthcare infrastructure, poor transport connectivity, language differences, and irregular implementation of government schemes significantly hinder timely and adequate medical care. The community continues to rely heavily on traditional herbal medicine due to both cultural continuity and inadequate access to modern health services. Malnutrition, sanitation-related illnesses, skin infections, and delayed emergency care remain pressing concerns. Therefore, addressing tribal health in Devikulam Taluk requires an integrated and culturally sensitive approach that strengthens grassroots healthcare delivery, improves connectivity and awareness, and bridges the gap between traditional practices and modern medical systems to ensure sustainable and inclusive development.

SUGGESTIONS

The study suggests the following for the healthy and safe life of Muthuvan I n the study area.

1. It is suggested that tribal health must be treated as a priority area with the establishment of accessible and well-equipped healthcare infrastructure within or near the hamlet.
2. Sustainable and holistic livelihood schemes should be effectively implemented to improve economic stability and nutritional security.
3. Emergency transport services must be made locally available to reduce delays in critical situations.
4. Free diagnostics, medicines, and inpatient care should be ensured, along with early disease detection and regular health camps.

5. Efforts should be taken to eliminate discrimination in healthcare institutions and to appoint tribal counsellors who can act as a bridge between the community and the health system.
6. Awareness programmes and health education initiatives must be strengthened, incorporating Indian systems of medicine such as Siddha and Ayurveda alongside modern treatment. Telemedicine facilities can be introduced to overcome geographical barriers.
7. NGOs should be encouraged to undertake outreach programmes tailored to the specific needs of tribal communities. Special attention must also be given to dental care and maternal health services.
8. Ultimately, a community-based approach integrating traditional knowledge with modern healthcare, supported by strong institutional commitment, is essential to improve the health and well-being of the Muthuvan tribe in Munnar Panchayat, Devikulam Taluk, Idukki district, Kerala.

REFERENCES

1. Government of Kerala. Scheduled Tribes Development Department. Government of Kerala, https://stdd.kerala.gov.in.
2. Munia Nimisha. "The Problems of Tribal People and Its Challenges." International Journal of Reviews and Research in Social Sciences, vol. 8, no. 1, 2020, pp. 01–03.
3. Office of the Registrar General and Census Commissioner, India. Census of India 2011: Scheduled Tribes Population Data. Government of India, 2011, https://censusindia.gov.in.
4. Xaxa, Virginius. State, Society, and Tribes: Issues in Post-Colonial India. Pearson Education India, 2014.
5. Balgir, R. S. "The Burden of Sickle Cell Disease in India and the Challenges Ahead." Indian Journal of Hematology and Blood Transfusion, vol. 22, no. 1, 2006, pp. 1–7.
6. Kapoor, A. K., and G. Kshatriya. "Health and Nutritional Status of Tribal Populations in India." Anthropologist, vol. 2, no. 4, 2000, pp. 223–228.