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The Journal of Community Health Management

Journal homepage: <https://www.jchm.in/>

Review Article

Identifying potential community barriers for accessing health care services context to health for all in rural-tribal geographical setting in India: A systematic review

Dinesh Kumar^{1,*}, Taranand Singh¹, Poonam Vaiyam¹, Pooja Banjare¹, Sandhya Saini¹¹ICMR-NIRTH, Madhya Pradesh, India

ARTICLE INFO

Article history:

Received 21-09-2022

Accepted 28-10-2022

Available online 30-12-2022

Keywords:

Tribes

Community barriers

Quality health care

Universal health coverage

ABSTRACT

This review article focuses on community barriers among tribes living in different parts of rural regions in India and placed to find out the possible resolution/passion. The access to health care services has a very low coverage in rural region of the country especially in tribal communities. A systematic search was covered since last two decades from 2000 to 2020 of articles were extracted from Google Scholar, PubMed, Science Direct, JSTOR, WHO portal, Research Gate, Census 2011, etc. The health indicators of tribes were originated alarming status quo as widely held malnourished and sufferer from different disease and illness. Findings towards accessing quality health care services revealed that difficult geographical situation, communication in own language, financial constraint, low level of education, illiteracy, approaching traditional medicine and ancient culture as community barriers were remained constant. Low level of education, strong cultural believes and traditional culture norms are the strongest community barriers reflected their self-decision-making for not accessing the modern health care facility. An approach as creating effective awareness in harmonic way could be useful for bridging the gaps by involving existing medical resources and staffs, which can play a critical role in reducing the barriers. Thus, review findings suggest the need for implementing awareness programs can divert towards quality health care and thereby can “connect the unconnected” to stay healthy.

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1. Introduction

Health is a basic need and a fundamental right of each person. Although utilization of health care services is poor in India, it is especially poor in vulnerable communities. The health scenario of the tribal population who live in rural/remote and low-resource settings of the country is most important in terms of health determinants. The size of the rural population is 833.1 million, which is too large. 68.84% of the total country's population (1210.2 million) resides in rural and remote areas. Almost all tribes are inhabitants of rural segments and their living conditions are quite vulnerable. The Indian constitution

recognizes the special status of tribes as a safeguard to protect their rights and culture. Despite the large number of tribal populations, 104 million are still marginalized.¹ Why do tribal people have inequities in poverty, health and health care in comparison to others? An increased concern and awareness towards health security is being recognized as vital to poverty reduction strategy. This has shifted the paradigm of health care from poverty reduction towards social risk management.² Health is a widely and unanimously cherished motive to improve the well-being of society. It is important for the socio-economic development of the country. Therefore, investment in improving the health of individuals is also entitled as "human capital investment".³ According to the World Health Organization (WHO), the definition of health is a state of complete

* Corresponding author.

E-mail address: drdkumar1970@gmail.com (D. Kumar).

physical, mental, and social well-being and not merely the absence of disease or infirmity. The interplay of socio-cultural, economic, educational, demographic, and social awareness is the determining key factor of any community's health status.⁴

Therefore, the implementation of universal health coverage (UHC) has become a matter of discussion worldwide with its unifying concept of "health for all". Accomplishing universal health coverage refers to access to quality health-care services and financial risk management, which has turned the crucial target of the sustainable development goal (SDG) towards health risk management and has become an integral part of the SDG.⁵ UHC is founded on the terms of human rights and equity, where health services are provided according to people's needs and financed according to their ability to pay. UHC is committed to minimizing the disparities between the rich and poor and providing "health for all" in order to fulfill the 2030 SDG agenda's "to leave no-one behind".⁶

The national health goal in India was set in 2000 with the Alma-Ata declaration that strongly postulates "health for all". This includes the presence of an efficient health system that covers preventive and curative medicine, affordable access to health care, accessibility to relevant medicines, and adequate human resources for health functionaries.⁷ In 2010, WHO presented UHC as an objective and a strategy for its member states to reform or design their health systems.⁸

Based on such theoretical assumptions, the core components of UHC have been embraced to cover access to health care, coverage, socio-economic protection, and rights.⁹ A complete lancet series was published and advocated by eminent scientists on "India: Towards universal health coverage" in January 2011 showing the efforts and progress made towards the six broad categories: infectious diseases, reproductive and child health, children's nutrition, non-communicable diseases, health care and equity, human resources and financing.¹⁰

About half of the autochthonous people of the world's 635 tribal groups and subgroups live in India. According to Census 2011 records, around 705 indigenous groups have been identified in India as Scheduled Tribes (ST), constituting 8.6% of the total population.¹ The list of major tribes of India was adopted by the Census in 2001.¹¹ However, despite India's economic growth, the status of the ST population is behind the national average. STs are the most disease-prone communities and lack access to basic health facilities.

Approximately 75 Particular Vulnerable Tribal Groups (PVTGs) reside in various states in India. They are highly vulnerable, exploited, malnourished, and neglected communities with a high degree of morbidity and mortality. The poor condition of the PVTGs is particularly due to geography, poverty, illiteracy, ignorance, poor sanitation

and hygiene practices, lack of safe drinking water, blind beliefs, use of alcohol, etc. These communities also faced socio-economic challenges such as discrimination, displacement, and alienation from their land and livelihoods. They are also very shy about negotiating for their rights and could not take advantage of the benefits available to them, which reduces their opportunities to attain good health.^{4,12} The study focus is to identify the relevant barriers and their probable resolution.

2. Methods

A systematic review of available articles has been conducted based on realistic review guidelines. It involves an explanatory research strategy instead of being judgmental. Qualitative and quantitative studies are both covered to conclude meaningful and useful results for realism, a philosophy of science.¹³ All the significant studies on community barriers carried out on the tribal population have had a huge impact on society. A detailed survey on the health status of the Indian tribal population has been conducted to find out the gaps in health care facilities. It is based on previous reviews and reports published in the last two decades since 2000 to 2020. The basis of research related to community barriers and their impact on society has been dealt with in Table 1 for further analysis and recommendation.

2.1. Resource identification

Initially, the source articles were searched using keyword phrases such as universal health coverage, sustainable development goals, health equity, barriers to health care, tribal population, community barriers, etc. using various web search engines. The articles were extracted from Google Scholar, PubMed, Science Direct, JSTOR, WHO portal, Research Gate, Census 2011, Ministry of Health and Family Welfare etc. Since then, plenty of work has already been done for the betterment of the tribal population. Therefore, the significant work carried out in the past 2 decades (20 years) and had a dynamic contribution to society's welfare was chosen.

2.2. Screening of relevant studies

The peer reviewed articles included challenges, barriers, and opportunities for accessing modern health care facilities. The key themes were systematically used to extract the relevant publications on universal health coverage, community barriers, tribes in India and their health status, and collected information is presented in pictorial and tabulated form. Various filters were used at different levels in order to eliminate unimportant articles; an outlier has been set at each level for critical screening and inclusion of specific articles (Figure 1).

Table 1: The major category of community barriers covers situations that hinder health care access in tribes

S. No.	Barriers	Components	Impact on society
1.	Geographical	<ul style="list-style-type: none"> • Interior location • Poor road condition • Connectivity among roads • Long distance to Health Care Facilities (H.C.F) • No transportation facility • No proper network connectivity • No proper mapping 	<ul style="list-style-type: none"> • No emergency cares • No health functionaries • No Frequent communication between service provider and health care receiver
2.	Socio-cultural	<ul style="list-style-type: none"> • Different Language • Illiteracy • Gender biasness • Shyness/hesitation • Traditional practices • Orthodox belief/ Culture 	<ul style="list-style-type: none"> • Premature death • High mortality and morbidity rate • Poor maternal and child care practices • Critical health conditions often lead to death
3.	Motivational	<ul style="list-style-type: none"> • Awareness • Deterring attitude • Social stigma • Mistrust 	<ul style="list-style-type: none"> • Inadequate treatment • Discourteous behavior
4.	Financial	<ul style="list-style-type: none"> • Poverty • Lack of resources • Low awareness • No time & money to go to Hospital 	<ul style="list-style-type: none"> • Inability to take health care
5.	Health functionaries	<ul style="list-style-type: none"> • Lack of resources at H.C.F • Improper behavior • Inadequate staff in rural- tribal areas • Disinterests in living in rural and tribal areas 	<ul style="list-style-type: none"> • Inefficient treatment • Poor psychological and stereotype image of health functionaries

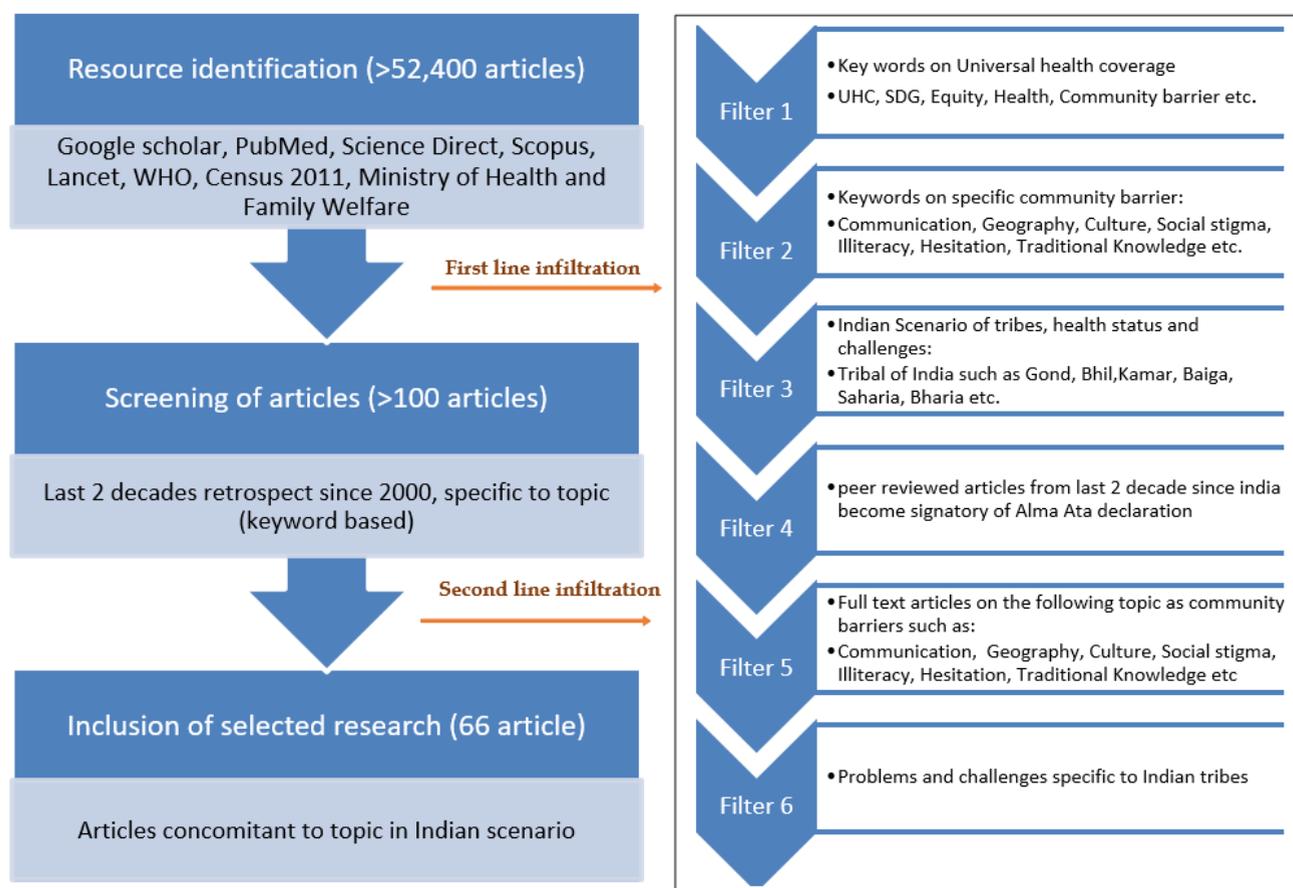


Fig. 1: Systematic research methodology for identification, screening and inclusion of specific research articles incorporated in the review

2.3. Inclusion criteria

After the first line of screening of a vast number of publications, the most significant articles highlighting health problems in the Indian scenario were considered in the inclusion criteria. Articles specially designated for Indian tribes and their challenges are enclosed in this review. After six level filtering and screening of multiple articles, approximately 66 articles were selected for designing the framework of this review. Outliers have been set for unrelated studies and exclusion criteria have been set for unimportant articles that are not peer reviewed, not available online and are not indexed as research and review articles.

3. Results

3.1. Tribal health status

The notion of well-being and the illness pattern vary among different tribal communities. Most tribal populations are at high risk of malnutrition due to their ancient agricultural practices, non-irrigated land, and poverty. The under nutritional status of tribes is more critical as compared to rural and urban areas.¹⁴

Mostly, women and children are the main victims of malnutrition.¹⁵ Malnutrition often leads to anemia, poor growth, improper brain development, bone problems, and overall health status. In the study of the Orissa tribes among the elderly population, it was reported that most of them suffer from vision impairment, chewing problems, tuberculosis, hypertension, asthma, respiratory tract infection, backache, and leprosy and have high morbidity rates.¹⁶ Likewise, in rural and remote areas of the country, the status of adolescent girls is especially susceptible as teenage marriages and pregnancies are very high. India is also experiencing high rates of neonatal death, which accounts for a high proportion of infant mortality.^{17,18} Additionally, the poor immune response, illiteracy, and ignorant attitude towards health care made the tribes an easy target for various communicable and non-communicable diseases. Poor sanitation and unsafe drinking water cause severe illness and a high degree of mortality due to typhoid, jaundice, tuberculosis, malaria, cholera, sexually transmitted diseases, hemoglobinopathies etc. Tuberculosis (TB) is one of the major causes of death in India and is prevalent in the Saharia tribe of Rajasthan. There is very little information available on the tribal population suffering from TB, which needs major support and input from the government in order to meet the TB eradication challenge of 2050.¹⁹

The lack of information about the health problems of the tribal communities due to poor road connectivity and inadequate communication has made them prone to infection and poor health status. Some of the major health problems of the tribes of India have been highlighted and dealt with in Table 2.

3.2. Community barriers

The community plays a pivotal role in the systematic functioning of any society, be it developed or underprivileged. The surrounding environment and social cultural structure drastically affect the population's behavior in different kinds below;

3.2.1. Gender disparity in decision making

Generally, among the tribal community, women have been considered as the weaker gender irrespective of their age, caste, complexion, religion, language, and political beliefs. They have been considered a weaker section of society. They face challenges at every step throughout their lives. India has high gender biasness and women face discrimination in education, health care, birth rate, occupational opportunities, financial management, political views and family decisions.³⁵ Indian society has high patriarchy, which abolishes basic rights for girls. In a study conducted on child vaccination, it was found that North Indian states have high gender bias compared to South Indian states. The study also concluded that gender discrimination is higher in urban areas among the middle and upper middle classes and observed significant gender heterogeneity.³⁶ A study in the slum areas of Uttar Pradesh found that slum dwellers prefer formal maternal care over informal treatment, but their decision is ominously influenced by several factors, such as accessibility to health facilities, financial instability, and prior experience with the health care system, the attitude of health professionals, as well as the quality of health care. Intra household dynamics also significantly affect the way of perceiving health care.³⁷ Decision making for proper health care utilization reflects their socio-economic status.

3.2.2. Geographical barrier

The tribal population mostly resides in the interiors. They are mostly forest dwellers, hunters and food gatherers.⁴ The foremost challenge for them is the geographical barrier. "Roads are the main source of connection and circulation of information, resources, people, and goods. It connects the periphery to the center and builds the prosperity and economic development of the country."³⁸ However, during the British Empire, physically, the tribal areas were made more accessible for exploitation of natural resources, whereas psychologically and administratively, the tribes became an isolated, marginalized, and untouched population.³⁹

3.2.3. Communication barrier

Communication is essential to building a society and to improving its living conditions. They receive information from local people travelling to and from the tribal areas, such as migrants and commuters, their relatives, government officials, postal information, public announcements and

Table 2: Major health issues in tribal communities in India's 17 major states

S. No.	Tribes of India (Inhabitants)	Specific tribe	Health indicators	
1.	Chhattisgarh, Madhya Pradesh, West Bengal	Kamar Baharia Santal	Under nourished children, underweight, stunting and wasting, vitamin deficiency	11,20,21
2.	Rajasthan, Madhya Pradesh	Saharia	Malnutrition, High prevalence of pulmonary tuberculosis	14,19
3.	Kerela, Odisha	-	Hypertension, Diabetes etc.	11
4.	Madhya Pradesh, Maharashtra	-	Malaria, hypertension	22–24
5.	Telangana	-	Malaria, hypertension, joint pain etc.	25
6.	South Gujarat, Maharashtra, Madhya Pradesh and Odisha	-	Sickle cell anemia	26,27
7.	Odisha	-	Sickle cell anemia, G-6 PD, malaria	28
8.	Assam	-	Prevalence of alcohol and tobacco abuse	29
9.	Chhattisgarh, Madhya Pradesh	Hill Korwa Baiga	Improper pregnancy care and chronic energy deficiency during pregnancy	30,31
10.	North-East, West Bengal, Odisha, Andaman and Nicobar Islands	-	Heamoglobinopathies	32
11.	Chhattisgarh and Odisha	-	Neonatal deaths	33
12.	Bihar and Jharkhand	-	Kala azar	34

the mass media. However, most of the information has been circulated through gossip and advocacy centers or Gram Chaupal at public meeting places.⁴⁰ Very few populations have radio, television or mobile phones. Again, in verbal communication, the first and foremost problem is the linguistic barrier. The notable problems of tribal communities are the inefficiency of conveying their problems with health functionaries, government authorities, and NGO volunteers due to language issues.⁴¹ A study carried out on Sickle Cell Disorder (SCD) showed that indigenous language and communication methods had a strong impact on eradicating misconceptions about SCD and creating awareness among the tribes. The improper understanding of the language creates a chaos between the health care seeker and the health functionaries, often leading to delusion of the problems.⁴²

3.2.4. Financial constraint

Financial constraint is the most significant barrier among tribal communities. Some of the tribal communities even belong to the below poverty line (BPL) and do not have access to proper food commodities and are mostly malnourished. Every day they struggle to earn their livelihood, so even in a critical health situation, they must first earn their livelihood and then only think about their health. Therefore, the competition for their existence, survival, discrimination, denials, and deprivation do not allow them to perceive and get an opportunity to receive health care during illness. Hence, most tribes migrate due to aspirational conditions, food insecurity, unemployment, and limited access to social protection as illiteracy makes it difficult to live a decent life and seek financial stability.⁴³

3.2.5. Low level of Education

Education has a huge impact on the social context, the surrounding environment, and health-seeking behavior. Nowadays, there is an increasing awareness among the tribes have adopted the "life skills" approach which fosters awareness of significant factors for health and well-being.⁴⁴ Miscommunication due to poor education, social and cultural differences creates a huge gap between the recipient and the service donor that influences the treatment procedure and also reinforces stereotyped behavior.⁴⁵ Hence, health literacy is the most compelling factor for attaining effective and efficient use of health care facilities and thereby adding empowerment to the nation.⁴⁶

3.3. Traditional treatment procedure

Traditional Healers/Gunias are available in each tribal community and they reside in such areas. Since ages, tribes usually practice their traditional treatment methods or naturopathy. Indigenous populations do not consider a health problem specific to the person, rather it covers the whole family as well as the community. There is a tough fight for health practitioners to take decisions which are mostly influenced by the community.⁴⁷ They are highly inclined to their social taboos and most of their treatments are based on supernatural beliefs, psychological aspects, and magico-religious practices.^{47,48} Even if they want to open up to modern medicine, their social taboos and social stigma do not allow them to take advantage of modern health facilities. Faith healing has become an integral part of their traditional treatment method, which has been reckoned and established generation over generation and gained so much rapport that they do not consider the existence of modern

medicine.⁴⁷

3.4. Challenging role of health functionaries

Since, there are so many issues on the tribal communities' side, but there are also challenges faced by health functionaries. The geographical barrier is the topmost hindrance to the inaccessibility of health care. However, in India, the health system has been divided into various hierarchies to be able to reach tribal communities. The lowest is sub-center (SC), followed by primary health center (PHC), community health center (CHC), and district hospital (DH). However, their functionality exists only in governmental health records. Most of the time, there is a scarcity of doctors, medical staff, Accredited Social Health Activists (ASHA), Auxiliary Nurse Midwifery (ANM) etc. The inadequacy of medical staff, medical equipment, supply of drugs, and infrastructure play a critical role in tribal health upliftment and achieving universal health coverage.⁴⁹ It was found in a study that there is an obvious 20% unavailability of medical officers in their primary health centers (PHC) and an 8% critical shortage of trained health personnel. Moreover, in rural India, 75% of villagers do not know the names of the health functionaries and are also unaware of the PHC or sub-centers run by the government.⁵⁰ Also, the health care privatization in India involves all forms of divestiture that add extra treatment costs. The high consultation charges, admission fees, treatment costs, and health care services created a major challenge for the poor to getting to health care facilities. Moreover, this has not only limited access to poor people but also encouraged unethical and unregulated misconduct by health professionals.⁵¹

4. Discussion

It is evident from the previous reports and reviews that tribal health security is one of the prime concerns of the country in achieving universal health coverage and sustainable development. Tribes residing in different places have different socio-cultural norms, habitations, and behaviors. Due to poor economic conditions, introverted nature, gender disparity, and social taboos, they do not have access to modern health facilities and are not able to negotiate with their health functionaries. Their geographical situation, which is also one of the major reasons for the prevalence of specific diseases in their particular areas, such as the predominance of vector-borne diseases (malaria, Japanese encephalitis (JE), lymphatic filariasis) in Northeast India, whereas the incidence of pulmonary diseases such as tuberculosis in Rajasthan.^{52–54}

However, the mobilization of communities towards the city is not possible, but efforts can be made to increase the literacy rate and awareness among these folkloric groups, which can improve their socio-economic status

and, thereby, their health. Therefore, to overcome the geographical barriers to attaining health facilities and to improving health status, an innovative approach to pocket-friendly mobile technology has been investigated as a telemedicine in the tribes of America to detect and diagnose diabetic patients.⁵⁵ In India, the states of Tamil Nadu and Orissa have implemented a mobile health unit (MHU) in underprivileged areas. The MHU consists of a physician, a pharmacist, an ANM, one or two paramedical staff, and a driver. The effective functioning of MHU is maintained through the co-ordination with Primary Health Centers (PHC) and the medical officer of the PHC.⁵⁶ Similarly, in Jharkhand, an e-Health intervention "Mobile for Mothers (MfM)" has been implemented to enhance maternal health knowledge and behavior. Mobile technology is being used to improve access to maternal care in the rural areas of Jharkhand.⁵⁷

The second problem is the poor verbal communication of the tribal population. Inadequate verbal communication makes the doctor unable to understand the patients' problems. Due to the language barrier, these folkloric groups vacillate about conveying their health problems, which becomes equally difficult for the patient and the doctor for seamless diagnosis and treatment. However, there are mediators to translate the local languages of tribes, but it does not develop a belongingness with the doctor and, hence, makes a wrong choice in the treatment process.⁵⁸ Health workers from different communities are incapable of developing a sense of belongingness with indigenous groups, and therefore, these folkloric groups do not cooperate. The physiological factor strongly works in the indigenous population and the social identity of health professionals belonging to the same community "in-group" and from other communities "out group" show different attributes in the community and vice versa.⁵⁹ Education plays a decisive role in health care related decision making in the family or community. Hence, from the previous discussion, it is quite evident that better health care is embedded in education.⁶⁰ Education establishes a fundamental role in perceiving better health care and improving living standards.^{46,61,62} Moreover, education enhances the cognitive skills of mothers, informs them about treatment and medication, and also creates economic independence.⁶¹ However, nowadays, with increasing awareness and education, the tribal population has adopted modern health facilities and females are getting involved in their critical decision-making system regarding maternal care practices. This has significantly reduced home deliveries and reduced the risk of death during delivery.^{61,62} In the tribal population, the head of the family is solely authorized to make decisions regarding education, health and family issues. There is a huge gender disparity which also influences not only females but the whole family to become sufferers. The financial security of a family

is entirely responsible for the role of women in family decision-making. Observations regarding pregnancy care and institutional delivery have been recorded in focused group discussion, which clearly shows how autonomy is important for taking maternal and child care decisions in the powerless situation of women.⁶³ The reasons for not using the ANC services are based on their multiple attitudes that reveal several immoral approaches to pregnancy care, 81.3% due to lack of knowledge.³¹ Additionally, the majority of deliveries are assisted by untrained midwives or dai (87.7%) under unhygienic conditions, which indicates numerous risk factors for conducting child birth at home.⁶⁴ This can be ascertained by generating awareness to promote institutional delivery, especially among women and responsible family members, to make good decisions. It was also reported that they are very comfortable with traditional healers due to easy access, lower cost, and they will provide only herbal medicines.³¹ An integrated multispectral partnership such as education, infrastructure, transportation, public safety, and human resources can comprehensively create a better impact on community health.⁶⁵ The economic growth of the country will not be admissible without social justice and inclusion of each and every household that does not receive proper food and basic health care.⁶⁶

5. Conclusions

It is evident from the previous studies that beside their habitation, poor education, geographical situation, poverty and low awareness on health issues, facilities and schemes is the major barrier. Education has a strongest impact on accessing health services among tribal communities. It will not only make them aware about the health care and availing its benefit but also improvises their living standard. Therefore, creating awareness through educating the uneducated tribes will be a major breakthrough in understanding their problems and illness, etc. for better treatment and creating a possible solution for them not only in terms of better health services but also with better financial stability too. Establishment of small-scale industries, entrepreneurship and local goods market can improve their status and imbibe confidence in their attitude. Moreover, this article also underlined the dependency on family and community for tribal health decision-making that acts as the most significant barrier because of their low education and strong cultural beliefs. Creating behavioral change is one of important aspect to connect the unconnected with the modern society and to provide them for quality health care services which are available for indigenous population in those areas.

6. Conflict of Interest

Authors have no conflict of interest.

7. Authors' Contribution

The conceptualization of work and design was developed by Dr. Dinesh Kumar. Mr. Taranand Singh had critically reviewed the articles and contributed significant inputs. Ms. Poonam Vaiyam did the formation of the necessary tables and figures. Relevant article collection and data curation by Ms. Pooja Banjarey. Ms. Sandhya Saini helped with selection and screening of articles. All the authors unanimously agreed to publication.

8. Acknowledgement

The authors are grateful to the Director of the Indian Council of Medical Research (ICMR)-National Institute of Research in Tribal Health (NIRTH), Jabalpur, for encouraging and technical support. We are also very thankful to the Division of Socio Behavioral and Health System Research (SBHSR) ICMR-New Delhi for providing the opportunity to work on the Universal Health Coverage (UHC)-National Task Force (NTF) Project, which forced us to develop this review article to understand the hindrances of tribal communities and possible resolutions in favor of universal health coverage to the vulnerable tribes in the country. The manuscript has been approved by the Publication Screening Committee of ICMR-NIRTH, Jabalpur and assigned the number ICMR-NIRTH/PSC/32/2020.

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Author biography

Dinesh Kumar, Scientist E

Taranand Singh, Project Research Assistant

Poonam Vaiyam, Project Research Assistant

Pooja Banjare, Project Research Asstt.

Sandhya Saini, Project Research Assistant

Cite this article: Kumar D, Singh T, Vaiyam P, Banjare P, Saini S. Identifying potential community barriers for accessing health care services context to health for all in rural-tribal geographical setting in India: A systematic review. *J Community Health Manag* 2022;9(4):169-177.