



IMPACT OF HEALTH AND NUTRITION AMONG THE BIRHOR TRIBES OF JASHPUR DISTRICT, CHHATTISGARH

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Abstract

The Birhor Tribes are a particularly vulnerable tribal group in Chhattisgarh because they lack access to resources and development benefits, including infrastructure, education, and basic subsistence means. They are perceived as being less fortunate than other communities in terms of having access to resources and other rights. The article draws its conclusions from both primary and secondary sources. The paper examines the health and nutritional status of the Birhor tribes in Jashpur district, as well as the inherent vulnerabilities and complexities of their livelihoods. The article's main conclusion is that the Birhor people are gradually transitioning from their traditional hunting-and-gathering way of life to a settled lifestyle. Like many other Indian indigenous communities, the Birhor tribes struggle with several issues, such as marginalisation, a lack of access to essential services like healthcare and education, and restricted economic prospects. Some of the main issues these groups face include defending their rights, preserving their culture, and enhancing their general quality of life. In the study area, they are now accepting the new sociocultural ways of life. The human body needs proper nutrition to live a healthy and active life. Due to all these, one suffers from many types of diseases; not only this, the condition of severe malnutrition leads to the death of such a person.

Keywords: Livelihoods, vulnerable people, Birhor, PVTG, Health and Nutrition

INTRODUCTION

The Birhor tribe in Chhattisgarh is one of the primitive tribes living in Jashpur. The word Birhor is derived from the union of two Mundari words, Bir (forest) and Hor (man), meaning "man of the forest". The origin of the Birhor tribe is believed to be from the Kolarian group. The Birhor tribes live outside the village, in grass-thatched huts (Tada), near rivers, streams, hills, mountains, and caves. The Birhor tribe has been divided into two groups – Uthlu or Muliya (who live a nomadic life) and Jaghi or Thania (who live a sedentary life). The main deity is worshipped by the sun god, Budhi Mai, ancestors, and worship mountains and trees. Their main work is hunting, collecting medicinal plants, making rope from the bark of a Moline tree, selling wood, and living their life by eating kanki-koda and Mahua. One of India's indigenous tribal groups, the Birhor, is primarily found in the states of Chhattisgarh, Jharkhand, Bihar, and Odisha. A sizable number of the Birhor tribes live in the Jashpur district of northern Chhattisgarh. The Birhor tribes have a distinctive cultural identity and way of life. They have historically been a nomadic group that has survived through hunting, gathering, and limited agriculture while residing in forested areas. However, several Birhor tribes have recently established permanent or semi-permanent settlements due to modernisation and government efforts. The Austro-Asiatic language family includes the language spoken by the Birhor people. However, due to increasing interaction with other tribes, many Birhor people today also speak local dialects or regional languages such as Hindi. In the past, the Birhor tribes inhabited transient structures built of leaves, branches, and other organic materials. However, some of them may now reside in more permanent homes made of mud, thatch, or other locally available materials, as they have shifted to a more established existence.

The Birhor tribes historically lived mainly as hunters and gatherers, depending on the forest for their food. Some people have switched to small-scale agriculture, day labour, or forest-based activities such as collecting non-timber forest products as a result of changes in land use and tightening regulations on hunting and gathering. The Birhor tribes have unique social structures and traditions. Their distinctive practices and beliefs shape their way of life, and a chief or elder often leads their society. Indian society is divided into diverse languages, religions, and caste groups. Indian society has been a confluence of various social groups. Various groups entered India at different times, but over time, the cultural traditions of all such groups became part of Indian society. Even after this, many human groups did not allow their physical and cultural characteristics to be destroyed, despite adopting some elements of external civilisation. Castes have been listed under Article 342 of the Constitution, giving them a new name: Scheduled Tribes. In fact, only such groups are referred to as 'tribe'. Continuous efforts have been made to uplift the backward tribes since independence.

Chhattisgarh is a tribal-majority state, with 32% of its population belonging to tribal communities. Among these tribal groups, 5 special backward tribes (Abujmadiya, Kamar Pahadi Korwa, Birhor, and Baiga) are recognised by the government. To develop these tribes, the government has been making continuous efforts over the last four decades. Despite all the efforts of the government, this tribal group is still suffering from many problems with its livelihood. The primitive tribe Birhor is one of these tribes, which is facing many problems like housing, health, poverty, malnutrition, unemployment, indebtedness, and illiteracy. The human body needs proper nutrition to live a healthy and active life. Only a healthy citizen can build a healthy and

developing society, as a result of which the nation becomes prosperous. If a man does not receive adequate food and nutrients, his physical development is often affected, and his mental and social development suffer as well. Due to all these, one suffers from many types of diseases; not only this, the condition of severe malnutrition leads to the death of such a person.

LITERATURE REVIEW

The Birhor tribe is among the state's endangered tribes. These characteristics protect the government to the Birhor tribes and their lifestyle has attracted the attention of so many scholars time to time, as a result of which many researchers have conducted research studies, including Dalton (1960), Dryer (1891), Hutton (1951), Risley (1964), Ram (1916) and Yodhari (1964) etc. SS Katare (1993) in his research article "Scenario of Tribal Development in the Central Satpuda Highland" made plans, basic and structural policies for the development of tribal social environment and implemented and evaluated them. Naresh Kumar (1993), in his research article "Levels of Socio-Economic Development of Tribal Population in Madhya Pradesh", examined various aspects of tribal society's development and their spatial organisation for socio-economic development.

P.R. Shukla (1995) examined the obstacles to the socio-economic development of tribes in his research article "Socio-Economic Development of the Scheduled Tribes in India", including illiteracy, child marriage, housing, health, transport, and communication. Pandey and Kavishwar (1998) studied the marital behaviour of the Birhor tribe, 83% of whose population lives below the poverty line. Most (96.39%) were illiterate, and 95.99% of the families made rope. Sinha (1999) studied the Birhor tribe of Madhya Pradesh, focusing on population distribution, language, sixth government, economy, religion, marriage, caste panchayat, etc. Pandey and Lakda (2000) studied maternal and child health care among the Birhor tribe and found that 82% of the population was illiterate. Ranjana Sharma (2000) conducted research on the development, problems, and issues of agriculture and nutrition at the district level in Bilaspur. Surendra Parihar and Ashok Pradhan (2001) have studied tribal development in India and emphasised its importance. Ram Kumar Tiwari (2001), in his research article "Human Resource Development in Jharkhand", examined the important contributions of socio-economic factors, such as urbanisation and female literacy, to human resource development.

M.P. Gupta and Uma Gole (2005): "Availability of food items and nutrition level in the context of Masturi tehsil (Chhattisgarh) has studied the amount of produce and nutrition obtained from consumption. Uma Gole (2005), in her research article "Evolution of Rural Nutrition in Chhattisgarh", examined nutrient availability and nutritional levels, considering employment availability, family income contributions, and the socio-economic status of educated women in rural areas. Uma Gole (2006) studied in her research paper "Rural dietary pattern and availability of nutritional resources in rural areas of Sipat block of Bilaspur district. Ashok Pradhan (2010) - Chhattisgarhi ki Birhor Vishesh Pichhadi Janjati me Paramparagat Jati-Panchayat has studied the living traditions and customs of Birhor tribal marriage.

OBJECTIVE

The main objectives of this study are as follows.

1. To study the assessment of health and nutrition level in the Birhor primitive tribes.
2. To calculate the per capita/per day food consumption pattern according to the availability of food grains among the tribes in the study area.
3. To analyse nutritional content based on the calculated dietary consumption pattern.

SOURCES OF DATA AND METHODOLOGY

The research article is based on both primary and secondary data sources. Primary data are collected from the local Birhor tribes through a field survey conducted with family heads in the Birhor-dominated, primitive tribal villages of the Bagicha block, Jashpur district. The villages are selected to fulfil research objectives, and the observation method is also used to compile primary data on nutrition and health levels in the study area, obtained through interviews and schedules.

Format of the questionnaire: The study schedule is divided into four sections. In the first section, basic family information about tribes; in the second section, information related to their agricultural work; in the third section, information related to their diet and nutrition; and in the fourth section, questions related to their health problems, accessibility, and benefits. The secondary data sources included the District Census Handbook, the District Statistics Bagicha Development Block (Jashpur District), village-wise land-use data, land-use data for Goshwara, and crop-related data for Rabi and Kharif. Data on commodities, Patwari Khasra, and animal wealth and equipment were obtained from the Revenue office and the Patwari of the study area. Weather and climate-related data, such as temperature, rainfall, and humidity, obtained from the Indian Meteorological Department in Pune and the Internet, are also used as required.

Methodology: To better analyse the research on the Birhor primitive tribe of Chhattisgarh, correlation coefficient methods will be used for factor analysis. Maps, diagrams, and charts will be used to make the research analysis more engaging and easier to understand. Z-score methods will be used to assess health and nutritional status. Nutrition level calculation for diet and nutritional conditions in Birhor primitive tribal families is done using I.C.M.R. Guidelines based on prescribed standards. Nutritional level is analysed based on consumption patterns across nutrients and then classified as high, medium, or low. The calculation of health conditions among the Birhor primitive tribe of Chhattisgarh is based on barometric studies of disease and illness, as well as on an anthropometric study of Body Mass Index. Body mass index is classified into three parts, and the excessive, normal and low weight indices will be determined.

STUDY AREA

Jashpur district is situated in the northernmost part of Chhattisgarh and shares borders with Jharkhand and Odisha. The district is characterised by lush green forests, hills, and rivers, making it one of the picturesque regions in Chhattisgarh. The district is divided into several tehsils and blocks for administrative purposes. Jashpur Nagar serves as the district headquarters and is an important town in the region. This district has a

north-south length of roughly 150 km and an east-west breadth of about 85 km. It covers 6,205 km² in total. It is between 22° 17' and 23° 15' North latitude and 83° 30' and 84° 24' East longitude. Geographically, it is split into two sections: the high-altitude northern (Upper Ghat) and the lower-altitude southern (Niche Ghat). The Upper Ghat is characterised by hilly topography and, in the northwest, high-elevation plateaus referred to locally as "Pats" (Pandrapat). Lower, flatter valleys and plains make up the Niche Ghat.

The Ibb and its tributaries, Dolki, Maini, Kokiya, Utai, Kadun, Girma, and Burhi, are the principal rivers in the Mahanadi basin. In the east, the Brahmani basin is traversed by the Baki and Rava Nadi rivers. The Geor and Kanhal Rivers mostly drain the Lower Ganges. Dendritic and wildly erratic drainage patterns reflect terrain. Uneven topography inhibits recharge and generates strong base currents through streams. In summer, Kunkuri is the hottest place in Nicheghat, and in winter, Pandorapat, situated amidst a forest, is the coldest place in Upper Ghat. This is a fork in the road, and anyone travelling from Raigarh, Ambikapur, or Jashpur must pass through Phatthalgaon first. The majority of the district consists of red clay (Alfisol) developed on granite. Small areas of the black soil (Inceptisol) form on the decant trap.

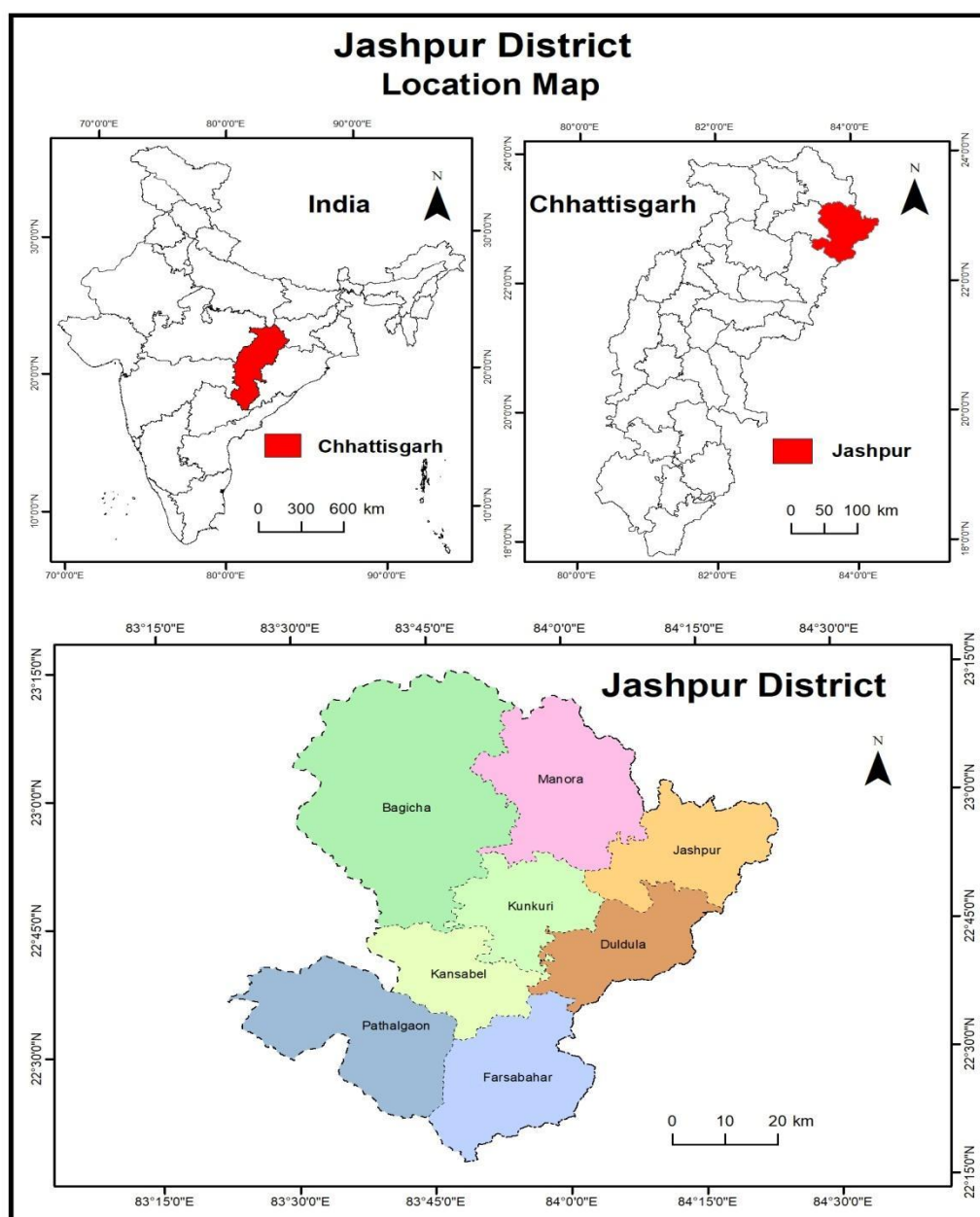


Fig 1. Location Map of the study area

According to the 2011 census, Jashpur district has a population of 851,669. This made it the 473rd in India (out of 640). The district has a population density of 146 people per square kilometre (380 per square mile). The population growth rate for the decade from 2001 to 2011 was 14.65%. Jashpur has a sex ratio of 1,004 women to 1,000 men and a literacy rate of 68.6%. 8.92% of the population lives in urban areas. Scheduled Castes and Scheduled Tribes make up 5.73% and 62.28% of the population, respectively.

Nutritional Status

The nutritional status of a population involves conducting surveys, collecting data on dietary habits, anthropometric measurements (height, weight, etc.), and blood tests to measure micronutrient levels. Improving nutritional status is essential for the overall health and well-being of individuals and communities. It requires implementing targeted interventions such as promoting balanced diets, providing nutritional education, enhancing food security, and addressing underlying social and economic factors that contribute to malnutrition. Regular monitoring and evaluation of nutritional interventions are crucial for tracking progress and making data-driven decisions for future actions.

Table No.-1.1

Jashpur District: Nutritional Level Index

S. N	Surveyed Village	Nutritional Elements									
		calories	protein	Calcium	Vitamin A	Vitamin B2	Vitamin C	Iron	Carbohydrate	Fat	Composite index
1	Ghoghar	-1.25	0.28	-0.53	-0.47	-2.17	-0.55	-0.14	-1.76	-1.15	-7.74
2	Dasdumartoli	-0.07	-0.1	0.8	0.95	0.48	3.16	0.43	0.8	1.08	7.53
3	Kansabel	-0.07	0.23	-0.76	-0.88	0.02	-0.25	-1.26	-0.53	-0.19	-3.69
4	Jhargaon	0.27	0.07	-0.27	-0.41	1.02	-1.17	-0.63	1.8	-0.81	-0.13
5	Dabnipan	-1.08	-1.26	-1.56	-1	-1.88	-0.37	-1.32	-0.24	-0.8	-9.51
6	Bataikela	0.25	0.06	1.08	1.24	0.93	-0.37	1.06	0.42	0.54	5.21
7	Behrakhar	-0.35	-0.38	-0.52	-0.73	-0.43	-0.74	-0.4	0.63	0.02	-2.9
8	Buldega	0.09	0.24	0.26	-0.13	0.64	0.85	1.17	-1.49	-1.06	0.57
9	Sawatoli	-0.14	4.07	-1.56	-0.73	-1.01	-0.5	-1.1	0.46	0.43	-0.08
Average		-0.26	0.36	-0.34	-0.24	-0.27	0.007	-0.24	0.010	-0.21	-1.193

Source: Sample Survey, 2021

To assess the nutritional status of the surveyed villages in the study area, per-day calorie, protein, calcium, vitamin A, vitamin B, vitamin C, and iron levels have been calculated based on the consumption of food grains among Birhor primitive tribal farming families. First of all, all these nutrients are measured separately, each converted into a "2" score. Notably, it is difficult to measure all nutrients simultaneously to assess overall nutritional status. The combined index is obtained by converting the score into a combined value. It is also appropriate to note that the nutritional status of the 'Birhor primitive tribe' was low at the time of measurement.

Nutritional status refers to the health condition of an individual or a population in terms of their diet, nutrient intake, and overall nutritional well-being. It reflects how well an individual's nutritional needs are met, which directly impacts their growth, development, and overall health. The combined index numbers are positive and negative, classified as high, medium, and very low.

High Nutritional Status

It is clear from the analysis that in the surveyed villages of the study area - Dasdumartoli, Batikela, and Buldega, more than 5 high religious nutrition level index was obtained. The study area is the Jashpur Samari part; the same area has been found to have an abundance of rural forests, where the habitation of the 'Birhor' primitive tribe has been found to consume excessive amounts of forest produce. The surveyed area falls within the high-nutrition category, but substantial regional disparities remain evident. In the village of Buldega, 26.11 per cent of the total area is covered by forests. The village of Dasdumartoli, the Batikela village, is located in the plains; it has the highest bare-crop area at 45.59 per cent and 43.36 per cent, respectively. A sufficient caloric intake is necessary to meet the body's energy requirements. Consuming too few calories can lead to malnutrition, while excessive calorie intake can lead to overweight and obesity.

Medium Nutrition Status

A moderate nutritional status index has been obtained in the surveyed villages of Dasdugartoli, Batikela, and Buldega of the study area. The main reason for this is the excess of the Jashpur Pat area. Due to the flat ground in the area, the excess uncropped area has been found at 46.47 per cent in village Behrakhar, 43.70 per cent in village Jhargaon, 42.59 per cent in Savatoli, and 31.27 per cent in village Kasabel. Still, the Birhor primitive tribe's involvement in agricultural work was found to be deficient. Due to low awareness of food and education, a medium nutrition level index (50) was obtained.

Table No. 1.2

Jashpur District: Nutritional Level Index

S.N	Nutritional Status	Nutritional Level	No. of Village	Surveyed village
1	High	< 5	3	Dashdumartoli, Bataikela, Buldega
2	Medium	-5 to 0	4	Kansabel, Jhargaon, Behrakhar, Sawantoli
3	Low	-10 to -6	2	Ghoghar, Dabnipani

Source: Sample survey, 2021

Low Nutritional Status

It is clear from the analysis that in the surveyed Ghoghar, Dabnipani of the study area, a low nutrition level index (-10 to -6) has been found. Most Birhor tribal farmers in the surveyed village depend on shifting agriculture. and is still in a backward state. Due to the excess of Pat and Plateau areas, agricultural production is lower. They work in agriculture to earn a living. Along with this, the Birhor family is forced to earn their living by collecting wages and forest produce, which is the main reason for their poor nutrition.

CONCLUSION

The effects of these nutrients were assessed using nutritional indices for the surveyed 'Birhor primitive tribes', revealing a 'high nutritional level of Birhor primitive tribes' in Dasdumartoli, Bataikela, and Buldega Village.

The study area is a part of Jashpur Samari Pat. On the other hand, the area has abundant rural forests, where the Birhor primitive tribe is found to consume an excessive amount of forest produce. In contrast, low nutritional levels have been found in Ghoghar and Dabnipani. The Birhor tribe is an indigenous community residing mainly in northern Chhattisgarh. Like many other tribal communities, they often experience marginalisation and limited access to basic healthcare and nutrition services. Remote tribal communities like the Birhor often face difficulties in accessing healthcare facilities due to their geographical isolation and inadequate infrastructure. The availability of doctors, medical clinics, and adequate medical supplies may be limited in these areas, leading to health disparities. Malnutrition can be a prevalent issue among tribal populations due to limited access to nutritious, balanced diets. Poor agricultural practices, limited food diversity, and poverty can contribute to malnutrition among the Birhor tribes.

It is worth noting that the villages of Ghoghar and Dabnipani, which have low nutritional levels, are surrounded by plateau areas on all sides. Here, the production of coarse grains, in which maize has been found more. Due to the lack of roads and other infrastructure, education could not be developed. As a result, consumption of nutritious food decreased. It is clear from this that the geographical background of the 'Birhor'

primitive tribe families directly affects the food availability and nutrition level. The same is also a major hindrance to the socio-economic development of the Birhor primitive tribe in Jashpur district. Access to clean water and proper sanitation facilities is crucial for maintaining good health. Inadequate sanitation and poor hygiene practices can lead to the spread of waterborne diseases and other health problems. Tribal communities, including the Birhor tribe, might be more vulnerable to infectious diseases due to their isolated living conditions and limited exposure to modern healthcare practices. Outbreaks of diseases like malaria, tuberculosis, and respiratory infections can pose significant health risks. Maternal and child health are often areas of concern in tribal communities. Limited access to antenatal and postnatal care, along with poor nutrition, can result in higher maternal and infant mortality rates. The Birhor tribe, like other indigenous communities, may have their own traditional healing practices. While some of these practices can be beneficial, others may lack scientific evidence or even pose health risks if not applied properly. To address these issues, various governmental and non-governmental organisations have been working on initiatives to improve healthcare access and nutrition among tribal populations. These initiatives often include efforts to establish healthcare centres in remote areas, promote nutrition awareness, provide supplementary nutrition for pregnant women and children, and, where appropriate, integrate traditional practices with modern healthcare.

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