

UNDERSTANDING POOR MAN'S DISEASES IN CONTEMPORARY INDIA: A SYSTEMATIC REVIEW

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Abstract: *This paper focuses on various poor man's diseases of tribal people in India, Most of the diseases are curable and preventable but due to lack of understanding and awareness among poor, illiterate and innocent tribes. Nearly 80% of diseases are now facing tribals are sanitation related, water-borne, air-borne, and communicable and lifestyle diseases. Another 65% of diseases are food and nutrition deficiencies. This paper also examines and presented various extensive and important studies were carried out by research experts.*

Key Words: Tribes, Diseases, sanitation, HIV, Malnutrition and Poverty.

1. INTRODUCTION:

The word "Tribe" has been denoted by colonial regimes and has different connotations and definitions. As the term "tribe" is often used in a derogatory way by aliens, non-tribal selfish-minded people, including politicians, and the use of derogatory terminology is no longer acceptable in the lexicon of "civilised" societies, people prefer to refer to "tribal" groups as "ethnic groups" or "indigenous peoples". Whether they use the term "ethnic groups" or "indigenous peoples" depends on the perspective from which they are working on the issue. For the indigenous groups themselves, it does not make much difference what term is used. What counts for them is that they get their rights and an equal share of resources, Lal (2014).

India has the largest tribal population in the world. There are about 427 recognized Scheduled Tribal groups in India. As per 2011 Census, the tribal population of India is 104.3 million, larger than that of any other country in the world. Myanmar, with the tribal population of 44 million is the second largest. Tribes of Andhra Pradesh have added grandeur to the region with their rich heritage of culture, innocent lifestyle and age-old ethnicity. In other words, their customs, rituals, fairs, festivals have drawn the attraction of all the anthropologists of the country who have conducted surveys on them with enthusiasm and vigour, Lal (2011).

They form approximately 8.6 per cent of the total Indian population. These tribal groups inhabit widely varying ecological and geo-climatic conditions (hilly, forest, desert, etc.) in different concentration throughout the country with different cultural and socioeconomic backgrounds, Lal (2011).

Good health is a pre-requisite to human productivity and development process. A healthy community is an infrastructure upon which an economically viable society can be built. Unhealthy people can hardly be expected to make any valid contribution to the development of society. "Health is vital for the ethical, artistic, material and spiritual development of man" (Charaka, the renowned Ayurvedic physician). The World Health Organization (WHO) has done a great service to mankind by ushering in an era of international co-operation in the field of health and promoting the concept of "Health for All" by the year 2000. The constitution of WHO, which was drafted and signed in 1946, stated that "Health is a state of complete physical, mental and social wellbeing and not merely the absence of disease and infirmity, Lal (2006).

Ideal health will, however, always remain mirages because everything in our life is subject to change. Health, in this context, may be defined as an individual's ability to adapt and modify according to the changing conditions of life. Sound health, on one hand, is a by-product of socio-economic developments, and on the other hand, it is an important determinant of the quality of human resources of a country. Health care is not only everyone's right but also everyone's responsibility, Lal (2006).

Various National Health Policies, accord high priority to extending organized services to those residing in the tribal, hilly and backward areas as well as to the detection and treatment of endemic diseases affecting tribals, yet they continue to be one of the fragile population, mainly due to their poor health and disease management. Tribal health is one of the important areas for action in the health sector. The major contributors to the increased disease risk amongst tribal communities include- (i) poverty and consequent undernutrition; (ii) poor environmental sanitation, poor hygiene and lack of safe drinking water leading to increased morbidity from water and vector-borne infections; (iii) lack of access to health care facilities resulting in the increased severity and duration of illnesses; (iv) social barriers and taboos preventing utilization of available health care services; (v) vulnerability to specific diseases like G-6 PD

deficiency, yaws and other endemic diseases like malaria etc. Also, the tribal population, being heterogeneous, there are wide variations in their health status, access to and utilization of health services.

2. THE OBJECTIVES OF THE STUDY:

- To understand the health and health-seeking behaviour among the tribes.
- To study factor responsible for tribal health problems
- To find out the community perspective towards the causes of various diseases prevalent in tribal India.

3. SYSTEMATIC REVIEWS:

Key factors in diseases are widespread poverty, illiteracy and malnutrition, lack of personal hygiene, absence of drinking water, sanitary living conditions and health education, poor maternal and child health services, and ineffective coverage by national health and nutritional services, have been identified as conditions responsible for the poor health status of the poor.

A study was conducted on consumption pattern by Suresh Lal, tribal folk neither have saving habits nor do they accumulate assets for better tomorrow. It is just because of the fact that they think themselves as one of the creatures of nature and therefore the nature itself takes care of their needs; as a result most of their spending is found to be on not so essential non-food items which in turn degrade their quality of life, Lal (2003).

Non Communicable Diseases include cardiovascular diseases (CVD), cancer, diabetes mellitus, chronic respiratory diseases and other chronic diseases of non-infectious origin. The number of death occurring from non-communicable diseases will see a dramatic rise in the future. It has been projected that the annual mortality rate due to NCDs will rise from an estimated 28.1 million deaths in 1990 to 49.7 million in 2020, Murray (1997).

Researchers have observed that tribal people are living in remote and ecologically diverse climates and areas. Modern medicine has not been accepted in most tribal areas, where magico-religious health care systems prevail. Health conditions in tribal areas have been described as deficient insanitary conditions, personal hygiene, and health education, Lal (2009).

Common diseases are sexually transmitted ones and genetic abnormalities such as sickle cell anaemia and Glucose-6 Phosphate Enzyme Deficiency (G-6-PD). Disease incidence for sickle cell anaemia has been estimated at more than 19 per cent among 35 tribal population groups, Lal (2009).

The study of health status and health practices among tribals deserves special attention in the situation of poverty. This is primarily for two reasons. First, the majority of tribals are backward, living in the inaccessible and remote forest and hill areas where modern health facilities are not available. Second, there is a rapid decline in the growth rate of the tribal population that is threatening their very survival. This demands careful attention of the socio-cultural habits and health practices of tribals. Therefore, a study has been taken up to examine the health status and health problems of tribals in AP, Lal (2006).

4. Sanitation and Women's Health:

A qualitative study was conducted on sanitation and women's health that, poor sanitation is also a serious threat to the cleanliness of the environment and the water resources used for the supply of drinking water. Lack of proper sanitation has led to high loads of bacteriological contaminants in surface water resources, Lal (2008).

In India, an estimated 70 per cent of the surface waters are polluted. Water quality monitoring in China showed that 54 of the 78 major rivers are seriously polluted by human and industrial waste. "by virtue of their domestic functions, in constant touch with water which is often polluted, according to statistics account for 80% of all diseases in the developing world" Lal (2008).

Studies have been extensively carried out in India on the impact of industrial effluent on the spread of various water-borne diseases in the study area are Diarrhoea is the most common waterborne disease, which affected 31% of subjects frequently. 28% of subjects are suffering from jaundice, joint pains, typhoid and diarrhoea. The number of respondents who are suffering from jaundice, joint pains, and typhoid is 24, 63 and 34 respectively, Lal (2010).

The majority of respondents are suffering from eye irritation and skin related diseases. They account for 64.3%. Seven per cent (7%) respondents are suffering from lung related diseases and 3.7% from throat related diseases (bronchitis). The airborne diseases, which are widespread in these areas, are eye irritation, skin diseases, lung related diseases and throat related diseases, Lal (2010).

5. Studies on HIV/AIDS and Health Problems:

Research conducted in tribal areas clearly established that tribal illiteracy and innocence push them to encounter HIV, once HIV infection is identified their life is hanging and have to spend on medicines, treatment etc. loss of working hours per day and the working days per year, due to ill health. The number of working hours lost shows the physical productivity decline in the economy. People are affected by HIV/AIDS, who require expenses to cure their diseases. This shows a pitiable condition of the victims, Lal (2017).

Stigma/ Discrimination: The people who are already suffering from HIV/AIDS and these diseases keep them at the low profile in the society. As a result of these diseases, people are suffering from reactive depression is their life, Lal (2017).

The people are already suffering from HIV/AIDS and these diseases keep them at the low profile in the society. As a result of these diseases, people are suffering from reactive depression is their life. About 54% of the respondents received such a reaction in our study area. 26% of respondents feel with Encephalopathy and about 16% of people faced with Dementia. Four per cent of respondents faced convulsions. Thus the HIV/AIDS affected people suffer, socially, economically, mentally, physically and also politically, Lal (2010a).

In rural areas, the scale of the problem is particularly daunting, as 74% of the rural population still defecates in the open, Lal (2013). An estimated 55% of all Indians, or close to 600 million people, still do not have access to any kind of toilet, Lal (2013).

More than one-third of married Indian women have chronic energy deficiency; more than half of them are anaemic. Forty-five per cent of children under three are severely and chronically malnourished. Only 42 per cent of children between the age of 12 and 24 months have completed their immunization schedule; a massive 14.4 per cent have not received a single vaccine. Only 31 per cent of the rural population has access to potable water supply and only 0.5 per cent enjoys basic sanitation, Lal (2009).

As hands are an important mode of transmission of infectious disease among school-aged children, simple hand washing with soap helps to protect children from the two common global paediatric killers (diarrhoea and lower respiratory infection), hand hygiene significantly reduce illness-related absences in elementary school students by 26%. Critical times for hand washing include after using the toilet, after cleaning a child, and before handling food, Lal (2016).

Attitudes, knowledge, and beliefs are some of the measures which are thought to be on the causal pathway to behaviour. Poor knowledge and practice of and attitudes to personal hygiene has negative consequences for a child's long term overall development Lal (2016).

Malnutrition is a double burden to the families of Banjara and tribals. Majority of families are with low-income and very poor dietary consumption. The consequences of malnutrition, including stunting, wasting and underweight (low weight for age), all of which result in an increased risk of death and illness for both pregnant women and children Lal (2015).

Malaria is the foremost public health problem of Andhra Pradesh in general and tribal and banjara thandas in particular, contributing 23% of malaria cases, 40% of Plasmodium falciparum cases and 10% of malaria deaths. More than 30% of banjara population of AP lives in high-risk areas for malaria. Though the tribal communities constitute nearly 8% of the total population of the country, they contribute 25% of the total malaria cases and 15% of total P.falciparum cases Lal (2015).

Water-borne communicable diseases like gastrointestinal disorders including acute diarrhoea are responsible for higher morbidity and mortality due to poor sanitation, unhygienic conditions and lack of safe drinking water in the Banjara thandas, Lal (2015).

The present study discusses important health problems viz, Anaemia, diarrhea, T.B. malaria, jaundices, ulcer, skin related diseases, deficiency of iodine and regarding health practices, important health variables selected like place of delivery-birth attendant, instrument used for cutting the umbilical cord and dressing, medical care taken during the pregnancy and utilization of medical / health services available within their area are also examined, Lal (2006).

The existing literature and a previous Lancet Series drew attention to the burden of chronic diseases and the availability of cost-effective interventions in 23 low-income and middle-income countries.

Chronic diseases (including cardiovascular and respiratory diseases, mental disorders, diabetes, and cancers) and injuries are the leading causes of death and disability in India—their burden will continue to increase during the next 25 years as a consequence of the rapidly ageing population in India.

Most chronic diseases are common and often occur as co-morbidities. Risk factors for chronic diseases are highly prevalent among the Indian population. Although a wide range of cost-effective prevention strategies is available, implementation is generally low, especially among people who are poor and those living in rural areas. Most health care is provided by the private sector, which often causes high out-of-pocket health expenditure that leads to debt and impoverishment. Immediate action to scale up cost-effective interventions for chronic diseases and injuries is needed; public healthcare systems need to be strengthened to allow these interventions to be effectively implemented. Strong public policy commitments to control chronic diseases and injuries need to be implemented more robustly, Gaziano & Abegunde.

6. Factors Affecting Tribal Health :

Research studies have pointed out various factors affecting the health status of primitive tribal communities. Major factors which induce the health trouble for tribal are an environmental effect, behavioural and cultural pattern, heredity and poor health-related services. Their inability to avail of modern medical treatment further increases the

health trouble. The lack of safe drinking water is one the major factor which is affecting their health. Tribal health situation worsens further with the problem of potable water when it combines with the unhygienic surrounding. Some research studies have pointed out that ‘the existing habits of defecation may be responsible for health. The medical doctors PHS mentioned that the germs of cholera typhoid and dysentery are adequately present in the stool of affected men. During rainy season these germs get mixed with stream water and this contaminated water is used by the Saharia and thus they suffer from these diseases, Misra (2004).

The common diseases affecting the tribals in the study areas are general fever, malaria, typhoid, diarrhoea, anaemia and jaundice. The common disease and the number of tribals affected by the disease are presented, Lal (2011).

Of all, the common diseases affected 598 tribals, belonging to 200 sample households, during the period of the survey. The highest number of tribals 230 (38.4 per cent) of the total, were affected by general fever. 117 tribals (19.5 per cent) were affected by Malaria. 95 tribals (15.8 per cent) were affected by Typhoid, 92 tribals (15.3 per cent) were affected by Diarrhea. Anaemia contracted 35 tribals (5.8 per cent) and 29 tribals (4.8 per cent) were contracted by Jaundice, Lal (2011).

7. Tribal Health Highlights:

Sex ratio is 990 compared to India's average of 933. 40.6% ST population lived below the poverty line as against 20.5% of the non-tribal population. 65% of tribal women in the 15-49 years age group suffer from anaemia. The rate of institutional delivery is the lowest among tribal women (70.1%). IMR for ST population in 2014 was 44.4. Under-five Mortality Rate was 57.2 per 1000 live births. Among total deaths due to Malaria, 50% of deaths are from the Tribal population. The prevalence of underweight is almost one and a half times in tribal children than in the ‘other’ castes. Only about 25% pregnant and lactating women and 29-32% of children had adequate intakes of both protein and calories. Total Fertility Rate for STs is 2.5. The estimated prevalence of Pulmonary Tuberculosis in the tribal community is significantly higher than the rest of the country- 703 against 256 per 100,000. Leprosy proportion of ST is 18.5% of all cases. One out of every four tribal adults suffers from hypertension. Sick cell anaemia is prevalent 1 in 86 births among tribal communities, in central India. Almost 72% of the tribal men in the 15-54 years age group were using tobacco and 50% consumes alcohol. Nearly 50 per cent of the outpatient visits by tribal people are to public hospitals and more than two third of the indoor hospitalization of tribal population is in government health services, Tribal Health (2018).

Diseases that are carried in the air through coughing, sneezing or even breathing, such as measles, tuberculosis (TB), whooping cough and pneumonia. Today there are 12 million TB cases (an average of 70%). Over 1.2 million cases are added every year and 37 000 cases of measles are reported every year, Lal (2012).

8. Food and Malnutrition:

Malnutrition is pervasive among tribals. Deficiencies have been detected in gross amounts of calcium, vitamin A, vitamin C, riboflavin, and animal protein. Southern tribes are known for their caloric and protein deficiencies. Those in rice-eating belts tend to have had higher protein intake. The workload of tribal women is heavy, long, and increasing. Maternal mortality is due to unhygienic conditions and inappropriate tribal practices. Interventions must focus on tribal culture, medical training of indigenous people. A health care delivery system catering to the community needs, and more research, activities with regards to their medicine is useful as it is readily available in nature, Lal (2007).

More than one-third of married Indian women have chronic energy deficiency; more than half of them are anaemic. Forty-five per cent of children under three is severely and chronically malnourished. Only 42 per cent of children between the age of 12 and 24 months have completed their immunization schedule; a massive 14.4 per cent have not received a single vaccine. Only 31 per cent of the rural population has access to potable water supply and only 0.5 per cent enjoys basic sanitation, Lal (2009).

The majority of rural deaths, which are preventable, are due to infections and communicable, parasitic and respiratory diseases. Infectious diseases dominate the morbidity pattern in rural areas (40% rural: 23.5% urban). Waterborne infections, which account for about 80% of sickness in India, make every fourth person dying of such diseases in the world, an Indian. Annually, 1.5 million deaths and loss of 73 million workdays are attributed to waterborne diseases, Lal (2012).

9. Lifestyle Diseases:

It is true that the major focus of various studies related to health issues in tribal areas is on malnutrition. However, in the present context, it has become absolutely essential to conceptualize such studies which lay emphasis on assessment of the health status of various tribal groups with respect to obesity, metabolic measures, dietary profile and physical activity.

It has also been noted that among the tribals there is high incidence of communicable diseases, like: Tuberculosis, Hepatitis, Sexually Transmitted Diseases (STDs), Malaria, Filariasis, Diarrhea and Dysentery, Jaundice, Parasitic infestation, Viral and Fungal infections, Conjunctivitis, Yaws, Scabies, Measles, Leprosy, Cough and Cold, HIV/AIDS, etc due to lack of sanitation and unhygienic living, Balgir (2005).

As per the 1991 Census, the Scheduled Tribes account for 67.76 million representing 8.08 per cent of the country's population. Scheduled Tribes are spread across the country mainly in forest and hilly regions. The share of the Scheduled Tribe population in urban areas is a meagre i.e. 2.4%. Madhya Pradesh, Maharashtra, Odhisa, Gujarat, Rajasthan, Jharkhand, Chhattisgarh, Andhra Pradesh, West Bengal, and Karnataka is the state having a larger number of Scheduled Tribes. These states account for 83.2% of the total Scheduled Tribe population of the country. Assam, Meghalaya, Nagaland, Jammu and Kashmir, Tripura, Mizoram, Bihar, Manipur, Arunachal Pradesh, and Tamil Nadu account for another 15.3% of the total Scheduled Tribe population, Census (2011).

Adult women of almost all households (>90%) across the districts went to fetch water, and on an average, they spent less than 30 minutes (mostly between 15-30 minutes) to fetch water from different sources that varied amid the districts. Regardless of the source of drinking water, more than 61% of samples the practice of not purifying water (or filtering it through a cloth to purify) before drinking that was notably alarming across the districts. It is to be noted that using a cloth to purify water is the least effective method of purifying it. Inhabitants of almost all households (93%) reported urinating or defecating in the open instead of using toilets connected to sewer lines. Worse, the majority of women washed hands with soap neither after using the bathroom (76%) nor before eating (90%). Lack of toilet facilities; the presence of open ditches; and practices of unhygienic lifestyle by women creates unsanitary conditions, which contaminates water; breeds mosquitoes; and causes water-borne diseases, Deepthi (2015).

Research has shown that 75 per cent of India's tribal population defecates in the open and 33 per cent does not have access to a clean source of drinking water. Unsanitary conditions, ignorance, lack of health education and poor access to healthcare facilities are the main factors responsible for the poor health of tribals. Further, displacement from their traditional forest homes and natural source of food and lack of livelihoods makes them dependent on the public distribution system (PDS) and other government handouts for survival The Hindu (2014).

Salil Basu (1994), had observed that it is found that there is a high incidence of poverty in tribal areas. For tribal life in only a battle for survival, it is binding of the civilized city dwellers to bring life the lives of the mere existence of these tribal brethren to improve their standard of living there is an urgent need to provide them more opportunities of earning.

10. CONCLUSION AND SUGGESTIONS:

The Rajiv Aarogyasri Community Health Insurance has been very popular social insurance scheme with a private-public partnership model to deal with the problems of catastrophic medical expenditures at tertiary level care for the poor households Lal (2017a). The Aarogyasri Health Insurance Scheme is giving more protection to the poor people. And they can access Government hospital or Private hospital which they required for treatment Lal (2017a).

There is a need to activate and strengthen PHC and CHC. Such institutions exist at their doorstep. Tribal's dependence on these institutions has increased over time. This trust has to be popularized and strengthened. PHC is neither properly equipped nor the ANM is able and capable enough to create a needful environment. ANM number needs to be increased at all the PHCs. Also, an organized, structured and well-equipped training and orientation package need to be formulated and implemented for them.

REFERENCES:

1. B. Suresh Lal, (2006); Health Status and Health Practices among the Tribals: A Case Study in AP, Journal of Social Anthropology, vol-3, No.2 Dec, Serials, New Delhi. P.no.233-239
2. B. Suresh Lal, (2008); A Study on Sanitation and Women's Health Problems in Rural Areas, In Environmental Concerns of Economic Development. Serials Publications, New Delhi.
3. B. Suresh Lal, (2011); Economic Analysis of Health Care Services: A Study in Tribal Areas of Andhra Pradesh – India, International Journal of Health Management and Information (IJHMI) Volume 2, Number 2, pp. 119-131.
4. B. Suresh Lal, (2011); Economic Analysis of Health Care Services: A Study in Tribal Areas of Andhra Pradesh – India, International Journal of Health Management and Information (IJHMI) Volume 2, Number 2, pp. 120. <https://www.researchgate.net/publication/276867324>
5. B. Suresh Lal, (2010); Impact of Pollution on Environment and Health: An Investigation, Inventi Rapid: Water & Environment Vol. 1, Issue-2. www.inventi.in
6. B. Suresh Lal & G. Kavitha, (2017); Awareness on HIV/AIDS among College Students: An Empirical Study in Karimnagar District, International Journal of Academic Research, Vol.4, Issue-2 (1), February. www.ijar.org.in
7. B. Suresh Lal & G. Kavitha, (2013); Economic Impact of Inadequate Sanitation on Women's Health: A Study in Warangal District, IJED: Vol. 10, No. 2, (July-December): 209-220.
8. B. Suresh Lal & K. Priyamvada, (2009); Tribal Women's Health Conditions- an Investigation in

9. Andhra Pradesh. In Human Development in India, Vol-II Gender and Subaltern Dimensions,
10. Serials Publications, New Delhi, pp. 512-525.
11. B. Suresh Lal, (2010a); The Economic Impact of HIV/AIDS: A Study in Tribal Areas in Andhra Pradesh, Indian Journal of Millennium Development Studies: An International Journal, Vol-5, Numbers 1-2, January & June; pp. 139-146.
12. B. Suresh Lal & G. Kavitha, (2016); Assessment of Personal Hygiene Knowledge and Practices: An Empirical Study of Schooling Children in Warangal, International Journal of Science and Research (IJSR), Volume 5 Issue 8, August. www.ijsr.net
13. B. Suresh Lal & G. Kavitha, (2016); Assessment of Personal Hygiene Knowledge and Practices: An Empirical Study of Schooling Children in Warangal, International Journal of Science and Research (IJSR), Volume 5 Issue 8, August, pno1521. <https://www.researchgate.net/publication/311562391>
14. B. Suresh Lal, (2015); Socio-Economic and Health Issues of Banjaras in the Era of Globalization: A Study in Telangana Tribal Villages, International Journal of Physical and Social Sciences, Volume 5, Issue 6, June. <http://www.ijmra.us>
15. B. Suresh Lal & R. Praveen Kumar, (2017a); Economic Analysis of the Rajiv Aarogyasri (Health Care) Scheme: An Empirical Study in Warangal District, International Journal of Academic Research, Vol.4, Issue-1(10), January. www.ijar.org.in
16. B. Suresh Lal, (2014); Tribal Development Issues in India: Volume-I & II. Serials Publications, New Delhi.
17. B. Suresh Lal, (2015); Socio-Economic and Health Issues of Banjaras in the Era of Globalization: A Study in Telangana Tribal Villages, International Journal of Physical and Social Sciences, Volume 5, Issue 6, June, <https://www.researchgate.net/publication/277534999>
18. Misra Pramod, (2004); Ecology, Culture and Health Primitive Tribe, Serials Publications, New Delhi.
19. B. Suresh Lal, (2010); Impact of Pollution on Environment and Health: An Investigation, Inventi Rapid: Water & Environment Vol. 1, Issue-2.
20. <https://www.researchgate.net/publication/276866919>
21. Gaziano TA, Galea G, Reddy KS (2007); Scaling up interventions for chronic disease prevention: the evidence. Lancet 2007; 370: 1939–46.
22. Abegunde DO, Mathers CD, Adam T, Ortegón M, Strong K (2007); The Burden and Costs of Chronic Diseases in Low-income and Middle-income Countries. Lancet 2007; 370: 1929–38.
23. Murray CJ, Lopez AD (1997); Alternative Projections of Mortality and Disability by cause 1990–2020: Global Burden of Disease Study. Lancet; 349: 1498–1504.
24. Tribal Health in India-Bridging the Gap and a Roadmap for the Future (2018); Ministry of Health & Family Welfare & Government of India, New Delhi.
25. Lal B. Suresh, M. Rathan Jyothi, (2003); Consumption Pattern of Tribal Households: A Study of Banjaras, The Economic Challenger No-05, Issue-18, January-March.pp.59-60.
26. Balgir R.S. (2005); Biomedical Anthropology in Contemporary Tribal Society of India. In, Deepak Kumar Behera & George Pfeffer (eds.) Contemporary Society: Tribal Studies (Tribal Situation in India). New Delhi: Concept Publishing Company. Vol. (6). PP. 292- 301.
27. Census of India, (2011); Govt. of India
28. Deepthi, KC, Samik Adhikari, (2015); Socio-economic and Gender Analysis of Tribal Populations in India, IFMR-Lead.
29. The Hindu September 02, 2014; Taking Healthcare to India's Remote Tribes.
30. Lal B. Suresh, (2012); Current Health Scenario of Subaltern Communities: A Review in Rural India, In Dimensions of Female Sex – Ration Inter-State Variations in India Issues and Challenges, Serials Publications, New Delhi.
31. Basu, Salil (1994); The state of the Art- Tribal Health in India in Tribal Health in India edited by Salil Basu, Manak Publishers in Delhi.
32. B. Suresh Lal & G. Kavitha, (2017); Awareness on HIV/AIDS among College Students: An Empirical Study in Karimnagar District, International Journal of Academic Research, Vol.4, Issue-2 (1), February. <https://www.researchgate.net/publication/318492980>
33. <http://tribalhealthreport.in/>