

## TRIBAL HEALTH WITH REFERENCE TO COMMON DISEASES

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### ABSTRACT

*Tribal health problems and their curation methods are both mundane and supra-natural, the latter being characterized by faith, sacredness and beliefs of the supernatural powers which are still more appealing to the majority of the rural tribals or those who are in the process of acculturation. Many of the tribal societies believe that the diseases caused to them are on account of the wraths of supernatural powers like gods, goddesses, spirits, ghosts and deities which are locally worshipped. The malevolent and benevolent supernaturals are distinguished and the tribals have devised modes of worship accordingly. To combat the scourges of diseases, the tribals have their own specialists including witch- doctors, priests and medicinemen whose services are readily available at a very nominal cost. The spiritual 'do's' and 'dont's' to keep healthy and protected against epidemics are well laid down and many a times the anger and wrath of supernaturals are attributed to the misdeeds and carelessness of certain individuals who are charged by the community as a whole. Imposition of penalty on the defaulter is thought to cause revival of the old and hence continuity of faith.*

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**Keywords:** Tribal Health, Disease Clusters, Supernatural Powers, Medicinemen, small Structures.

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### Introduction

The Bhils and Minas of the region have the religious sphere of their own, represented by a variety of spirits, gods, goddesses, worship, fear, awe and reverence. Images of these supernaturals are housed in small structures, quite often open to the sky. Witchcraft is widely practised. As an antidote to witches, the 'Veers' are erected on bamboos. The Veers have greater power to control disease causing evil-spirits and they also have the power to cure the epidemics. Sikotra is a very popular malevolent deity in Bhil society. The evil-effects of this deity are combated by worshippings in the 'Deoras', the religious places having a congregation of several Gods and Goddesses. Deoras are looked after by 'Bhopas' and 'Punjaries', the two types of priests who are thought to be efficient in curing the ailments because they have direct links with the super-naturals. The benevolent deities and spirits are represented through Bhomia and Matlok structures which are ancestral spirits providing protection and safety in all walks of life including health. The spot of a Bhomia bears numerous images of men carved out on stone slabs. These stones also have the imprints of bows, arrows, swords and horses and depict the chivalry of the dead ancestors. As among the Bhils, the erection of death memorial is common among the Garasia tribes also, more specially in the event of accidental deaths. The underlying common belief is that the spirit of the dead would cause harm, including sickness, if the memorial is not raised. Garasias regard Bhopas as representative of gods. This community has two types of Bhopas viz., Mataji Ka and Bhaironji ka; the latter is thought to be more competent in witchcraft. Appearement to ghosts is done by offerings, sacrifices and also by keeping fast.

### Common Diseases

Amongst a variety of diseases which are rampant in the region, venereal diseases and tuberculosis are the foremost and both of them are treated by methods of witchcraft in their traditional way. Venereal diseases are mostly on account of free sex even before the solemnization of marriages. Moreover, Bhils are polygamous who also observe clan exogamy and village endogamy. As usual in all other cases, Bhils also hide the venereal diseases in the initial stages which leads to greater complications when the disease spreads. Such diseases can only be accounted for the reasons of extra-marital and pre-marital sex relations in the tribal communities.

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Venereal diseases are highly common in the age-groups 16 to 30 and the records indicate that about 2 to 3% of the people of these age-groups suffer from these diseases. Syphilis and gonorrhoea, which account for the majority of the venereal diseases, are social problems in this region and therefore need health and sex education in the tribal areas. Tuberculosis is another major disease in this area which is most prevalent in the lower socio-economic groups of the people. Higher incidences of the disease are on account of poverty, under-nutrition and low inborn resistance to the disease. About 56% of the tribal population is the carrier of this disease and the most vulnerable is from 20-39 years<sup>2</sup>. age-group Isolation of active tubercle patients and their prolonged curative; administration of prophylactic doses of B.C.G. and supplementation of nutritious diets in the children are the only possible solutions which can lower down the incidence-rates of this disease in the tribals.

Among the other diseases, those which are related to undernutrition are most rampant. Kwashiorkor, rickets, endemic goitre, mottling of teeth etc. are most commonly found. With the advancement of civilization in these remote areas, malignant neoplasms, diseases of blood vascular system and those related to occupational hazards have also risen significantly. Persons working in the factories or mines often suffer from silicosis and disorders of the respiratory system leading to disabilities and fatalities. Similarly, the extension of newer advanced methods of agriculture have recently introduced the diseases of toxicity which are on account of the use of chemical fertilizers, pesticides and insecticides. The common diseases of the region can thus broadly be classified into (i) communicable e.g. tuberculosis, malaria, venereal diseases, typhoid, dysentery etc. (ii) Non-communicable e.g. malignant neoplasms, heart and coronary diseases, diseases of malnutrition. Both the types of diseases have their geogenic causes besides the pathogens which invade the host. The geogenic factors are mostly related to geographic and cultural environment and can thus be dealt with at socio-economic levels in the given set of natural environmental conditions to lower down the incidence-rates. The present study is concerned with the water-borne diseases of area. These diseases are caused by drinking the contaminated water. The ecological classification of diseases into four main groups viz., water-borne, air-borne, vectorial and malnutritional suggests that the geogenic causes of all the diseases can be located in these groups. Diseases like malaria and schistosomiasis or guinea-worm disease are caused by the breeding of vectors in polluted waters. Such diseases are also common in this region.

#### **Water-borne Diseases**

Water is essential to support all forms of life including man<sup>4</sup> but nevertheless it is also one of the biggest carriers of diseases. It is a carrier of a wide range of pathogens that can be fatal. The quality of water from different sources varies widely. In its course, surface water picks up both organic and mineral particles as well as bacteria and other organisms. Water in lakes and swamps may acquire odours, tastes and colours from algae and other organisms from decaying vegetation and thus become polluted. Besides man himself who is the biggest carrier of all diseases, the source of pathogenic bacteria and viruses are other animals. The disease organisms are most commonly transmitted to water supplies by fecal contamination and industrial effluents. The most common water-borne diseases are typhoid fever, bacillary dysentery, diarrhoea, gastro-enteritis and cholera. Water is also known to carry other specific diseases and viral infections.

The blue-green algae causes gastro-enteritis, Protozoal affections cause amoebic dysentery<sup>5</sup> water-borne viruses cause infectious hepatitis, parasitical contaminations cause schistosomiasis, malaria, hookworm, guinea worm and hydatid diseases. In addition to the water-borne water-borne pathogens there are often impurities of chemical salts in water which effect the human health adversely. These include nitrates, fluorides, pesticides, herbicides, lead, zinc, chlorides, cadmium, barium and molybdenum. Higher concentrations of these elements and compounds may lead to a variety of health hazards causing dental caries, skeletal damage, goitre and cardiovascular diseases. Differences in the trace element contents of soils, vegetables, and other edibles have been related to differences in the basic rock structure of the countries and localities, in rock types and in the general relief of land. In the present work only those water-borne diseases have been taken for study that are caused by drinking polluted water. Contaminations in surface water sources such as tanks, streams, ponds, open dug-wells and tanks are common in which the ecology and diffusion of each disease varies upon the source. Gross organic pollution of ground water rarely occurs, except when it is shallow, because of the inherent difficulties in introducing large quantities of wastes underground. They are removed by infiltration and biological action of colloidal matter and bacterial<sup>10</sup> diarrhoea, typhoid, infectious hepatitis, malaria, guinea-worm and other types of helminthic diseases are common manifestations which occur in the region under study. The pathogens of these diseases are varied, and so also their distribution, dispersal and mode of diffusion. These diseases can be classified in two ways, viz. pathological and ecological.

### Pathologic Classification

Based upon the pathogens causing the disease, the waterborne diseases of the region can be grouped under the following 4 categories.

- **Bacterial Diseases**

**Typhoid** is the only bacterial disease found in this region. It is an acute infectious disease of man caused by *Salmonella typhosa*, a bacterium that enters the body via contamination of food but mostly water. The bacteria is rod shaped, motile, gram negative, 2-4 microns in length and 0.5 micron in thickness. The disease has a 10-14 days incubation period and is characterized by headache, fever, generalized-aching and also cough and diarrhoea. The complications include acute inflammation of acute inflammation of the gall bladder, pneumonia, encephalitis and meningitis. About 30 per cent of the cases become transient carriers, excreting the bacteria in the stool or urine for weeks or months. About 5 per cent remain long-term carriers, harbouring the organism and shedding it for years. In these carriers, who show no apparent ill-effects, it is found mainly in the gall bladder and biliary passages. This is a disease characteristic of the humid and temperate climates. In damp dark places the bacteria find congenial conditions to multiply and in low temperatures especially in winters their life spans are enhanced.

- **Protozoal Diseases**

Protozoa is a phylum of of mostly microscopic, unicellular organisms. They are found wherever there is enough moisture for their active life. Some species are area specific whereas others are more widespread. Among the latter those which cause dysentery diarrhoea are the most common. Endemic malaria, due. to sporozova parasites of the germs **Plasmodium**, remains a public health problem of major importance throughout the region.

Dysentery is a disorder characterized by inflammation of the intestine, abdominal pain and diarrhoea with stools that often contain blood and mucus. This may be caused by bacteria but more often by protozoa. There are two varieties of dysentery (i) Bacillary dysentery and (ii) amoebic dysentery. Bacillary dysentery or Shigellosis is caused by bacilli, symptomatically it ranges from a mild attack that is barely noticed to more severe even fatal attacks. Amoebic dysentery is caused by the protozoa **Entamoeba histolytica** which can even produce intestinal ulcers. Transmission of dysentery usually occurs through contact with food or water that has been contaminated by a human infected carrier. The common manifestations of diarrhoea are loose motions with mucous and blood as well. It is caused by protozoa of various types. Three distinct pathogens producing different symptom complexes are the Enterotoxigenic *Escherichia coli* (ETEC) which produce enterotoxins, The Enteropathogenic *Escherichia coli* (EPEC) responsible for infantile diarrhoea and Enteroinvasive *Escherichia coli* (EIEC) which are similar to Shigellosis.

The more prevalent of the protozoal diseases are Bacillary and Amoebic dysenteries in the whole of Rajasthan. in temperate climate it is a seasonal disease and almost always associated with the summer or early autumn season. Although pathological manifestations of all these diseases differ due to their differences in the causal agents, they all have to similar seat of origin and multiplication in the human body, the large and small intestines. All of them spread through infected water. Infected agents handling food can also spread the diseases through unhygienic habits and practices. The other protozoal disease that is a major scourge in this region is Malaria (from Italian "bad air"). It is one of the great environmental diseases. Although it has nothing to do with 'mal' or bad air, it does rise from the waters and spreads across the surface of the land. Heat and cold and moisture of the air affect its movement. But the cause of the disease is a unicellular parasite called **Plasmodium**, and it is transmitted to man by Anopheline mosquitoes.

The mosquito begins its life as an egg deposited on water. The larva hatches out in 2-3 days and spread: for the next few weeks near the surface of the water. After molting four times it changes into a pupa and from the pupa emerges after a few days an adult mosquito and soon mating takes place and it is the female that feeds on human blood thus spreading infection. The infected person becomes anemic from loss of red blood cells, he may be jaundiced, and even have signs of gastro-enteritis. The malaria parasite, like most micro-organisms, holds stubbornly to life and malaria parasites resistant to drugs have appeared in several malarious areas.

- **Viral Diseases**

Viruses are a unique group of infectious agents that are characterized by their small size and simple composition. Viral diseases have been known to man for many years specially small pox and yellow fever. Infective hepatitis is the only disease in the region which is caused by viral pathogens.

Hepatitis is essentially a water-borne disease caused by pollution of public water supplies or by taking unhygienic food products. Human beings are the direct carriers of the disease but infection spreads due to sewage polluted drinking water or houseflies. The virus that causes hepatitis resists heating, drying and chlorination of water. In this viral infection there is infection of the liver leading to inflammation of the tissue. There are two types of hepatitis serum and infectious hepatitis. The former is transmitted usually by injection as in blood transfusions, while the latter is transmitted by way of mouth or by the faecal route. The acute symptomatic phase of hepatitis lasts from a few days to several weeks. The period of jaundice lasts for one to three weeks. The typhoid attack begins with fever and chills, loss of appetite, headache and muscle pains usually follow.

- **Helminthic Diseases**

Helminthic diseases are worm diseases. These worms enter into the digestive system of the host through the medium of water and inhabit the alimentary canal or live and multiply in the subcutaneous layer of the skin. The most common types of helminthic diseases are tape-worm and guinea-worm. Guinea-worm also known as Medina worm or Dragon worm (*Dracunculus medinensis*) is a member of the class Nematoda (Phylum Aschelminthes). The guinea-worm, a common parasite of man in tropical regions of Asia is found to be particularly active in the southern upland region causing wide spread disease incidence. The female grows to a length of 50 to 120 cm (about 20" to 48"; the male, which is rarely found, measures 12 to 19 mm (about 0.5 to 1.1"). Both sexes live in the connective tissue of various organs of the body. Females live for 10 to 14 months; males die soon after mating. The female bores close to the skin surface, at which point a blister develops and finally bursts. Millions of larvae are released with the blister fluid. If the larvae are discharged into a watery medium and are eaten by cyclops an aquatic Crustacean, they develop in the the crustacean's body into larvae capable of capable of infecting man. Man becomes infected when he drinks water containing the tiny crustacean. The guinea-worm larvae spread into the blood vessels and are carried to connective tissue areas where they develop into adults, ready to repeat the cycle.

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