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Health Seeking Attitude Among Indigenous High Landers (Native Mountain People) of Arunachal Pradesh in India

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The definition of World Health Organization of "Health is a state of physical, mental, social and environmental well being not mere absence of disease or infirmity" is partially socially accepted among indigenous people living in mountainous areas of Arunachal Pradesh in India. Mountainous areas of Arunachal Pradesh are inhabited by marginalized tribal communities with in adequate health facilities with their right to practice traditional health practices and beliefs. A person is not considered sick until and unless the respective age and sex in that culture concept of health is understood. An occasional pain stomach or a rise in temperature may not be noticed by self or members of the family or friends and if taken seriously one may run the risk of being ridiculed in the family or friends circle. In high mountain areas among limitations of resources, shortages of trained personnel, ratio of population to physicians, nurses and hospital beds provide an indication of the seriousness of the deficiencies along with economic hardship of native people. In such an environment to reach health facilities into communities, homes, individuals who need health care but do not seek it and must discover the causes of diseases is a Herculean work.

Introduction
Arunachal Pradesh, a vegetable treasure house of nature tucked away in the North-Eastern part of India, bordered by Myanmar in the east (440 km), Bhutan on the West (160 km) and China on the north and north-east (1080 km). It is situated at longitude 91° 31' E 97° 30' E and latitude 26° 28' N 29° 33’ N. It has an area of 83,743 sq km with evergreen forests covering more than 82% of the state. The population of Arunachal is 10, 97,968 according to 2001 census and is scattered over 20 towns and 3863 villages with an average density of 13 persons/sq km with sex ratio 901 female per 1000 males. It encompasses extensive geographical diversity and corresponding climatic conditions varying from tropical to temperate to Alpine. It becomes progressively cold as one move northwards to higher altitude with heavy rainfall and snow capped mountains on top during winter seasons. High mountains and dense forests have disrupted inter-communication between tribes living in different river valleys. Isolation imposed by highly rugged-terrain topography has led different (26) tribes with their several dialects to live and flourish with deep sense of beauty which finds delightful expression in their songs, dances and crafts. The entire state is hilly with altitudes ranging from 150 to 7300 m above sea-level. The hills slope downwards form north to south and from west to east. The variation in altitude has created a range of climates.

Physiological Adaptation to High Altitude Environments

Atmospheric Pressure

High Altitude: The air is less dense at higher altitude and consequently the partial pressure of oxygen (spo2) is also less. Man cannot survive at altitude of 25,000 ft. without breathing equipment. When man is exposed to low pressure, the physiological effects are-

i. Increase in respiration

ii. Increase in the concentration of haemoglobin (Hb)

iii. Increase in cardiac output.

Two conditions have been described as a result of sudden exposure to high altitudes.

Acute Mountain Sickness: This is a relatively harmless and transient condition characterized by headache,
insomnia, breathlessness, nausea, vomiting and impaired vision. It has not been conclusively proved whether all these symptoms are due to the effects of hypoxia or due to the various intricate biochemical or hormonal disturbances in the body.

**High Altitude Pulmonary Oedema:** The symptoms generally appear on about third day on high altitude and are disguisable from those of ordinary mountain sickness. As pulmonary oedema develops, the patient develops a cough and may experience irregular or Chyene stock breathing, oliguria, mental confusion and hallucinations, stupor, seizures and coma. The condition is rare below 12,000 ft (3,600 m). The condition does not respond to antibiotics. At present, the causes and mechanism of high altitude pulmonary oedema are not well understood.

**Air Temperature**

*Low Altitude:* The atmospheric pressure increases by one atmosphere for every 33 ft. depth below sea level. When man is exposed to high pressure, the gases in the air namely Oxygen, Carbon-dioxide and Nitrogen are dissolved in the blood and tissues proportionate to the partial pressure of the gases, leading to loss of mental functions and consciousness, excess CO₂ increases the narcotic action of Nitrogen, excess of O₂ leads to convulsions and death. When the person comes up to the surface, the gases which are dissolved in the blood under pressure are released and cause air embolism, the effects of which are fatal.

*Cold Effect:* Injury due to cold may be general or local. In general cold injury (Hypothermia), a person suffers from exposure to cold. This is characterized by numbness, loss of sensation, muscular weakness and desire for sleep, coma and death. Local cold injury may occur at temperatures above freezing (wet-cold conditions) as in immersion or trench foot. At temperatures below freezing point (dry-cold conditions) frostbite occurs, the tissues freeze and ice crystals form in between cells. Frostbite is common in high altitudes.

**Effects of Heat Stress**

*Heat Stroke:* This is attributed to failure of the heat regulating mechanism. It is characterized by very high body temperature and profound disturbances including delirium, convulsions and partial or complete loss of consciousness. The skin is dry and hot. Death is often sudden and may be due to hyperpotessemia. It may be due to release of potassium from red blood cells which have been injured by the heat.

*Heat Hyperpyrexia:* This is attributed to impair functioning of the heat regulatory mechanism.

*Heat Exhaustion:* Salt deficiency heat exhaustion is due to circulatory failure.

*Heat Cramps:* This occurs in persons who are engaged in doing heavy muscular work in high temperature and humidity characterized by painful and spasmodic contractions of the skeleton muscles. This is due to loss of Na+chloride in the blood.

*Heat Syncope:* Persons standing in the sun becomes pale; his blood pressure falls and collapses suddenly. There is practically no rise in body temperature. This is due to pooling of blood in lower limbs due to dilatation of blood vessels with the result that the amount of blood returning to the heart is reduced, which in turn is responsible for lowering of blood pressure and lack of blood supply to the brain.

**Effects of Humidity**

If relative humidity exceeds 65%, the air inside room feels sticky and uncomfortable. RH below 30% is also unpleasant. Permanent exposure to such low humidity’s can cause drying of the nasal mucosa which may pre-dispose to infection i.e. sore throat, cough etc.

**Effect of Precipitation**

The term precipitation is the collective term used for rain, snow, hail stone, dew and frost, i.e. all forms of water precipitated from the atmosphere causing harsh environment which has a direct effect on human
dwellings in high terrain mountain areas causing devastating floods, land slides, house collapses and daily functional status and polluting drinking water sources which caused gastroenteritis and other water borne disease when contaminated water is used.

Health Indicators of High Landers

Money is a crucial factor in health care. It determines how many health personnel can be trained, how many can be maintained in the field, and the resources that they will have to work with when they are at worksite. Govt. expenditure on health care vary greatly from country to country and region to region. To provide health care for its people a nation, on one hand must meet the urgent and complex problems, such as obstetric and surgical emergencies for which hospital care is essential. On the other hand, it must reach into the communities and home to find those who need care but do not seek it and must discover the causes of such diseases as malnutrition and gastroenteritis etc. Moreover, the problem of rendering health services to each and every single person becomes more difficult when they are tribal due to their social demographic, economic and topographical constraints. Over all mortality rate, age-specific mortality rate, infant mortality rate, and prevalence and incidence of morbidity are some negative health indicators. Moreover quality of health care facilities and demand for health care facilities and health seeking attitude of a community also indicates health status of a community and a region.

Cultural Concept of Health and Health Seeking Attitude

In a country like India huge diversity has been found in health status as well as health utilization. Hence it becomes important to know health status and health seeking attitude among the tribal people of the marginalized societies in India like that of Arunachal Pradesh. The United Nations working group on indigenous people has prepared drafts like indigenous people have the right to their traditional medicines and health practices, including right to the protection of herbal medicinal plants, animals and minerals (Article 24). The health of tribal is explained in relation to their tribalness, a cultural product of age old historical process. A person is not considered sick until and unless the individual feels incapable of doing normal works assigned to the respective age and sex in that culture concept of health. An occasional stomach ache or rise in temperature may not be noticed by self or members of the family or friends and if taken seriously one may run the risk of being ridiculed in the family or friend circles. So the concept of health in most of the societies is a functional one, not clinical, which is contrary to developed societies in the plains.

Among the tribals, there is a belief in some benevolent and malevolent spirits/ghosts. In some cases among the Buddhist, Hindus and Christianized tribal groups, there is a belief in supernatural beings or a hierarchial pantheon of anthropomorphic gods and goddesses. In some groups diseases are commonly related to the belief in different deities and spirits. Some believe in supernatural forces, that is, any negative act against such forces may cause harm to the self as well as the community. There is also a belief that health is threatened not only by spirits but also by person emanating evil, mystical powers like evil eye, evil mouth or witchcraft or evil touch. Supernatural causes of sickness as perceived can be classified as: Soul loss, breach of taboo, sorcery, Ghosts of ancestors/ancestral spirits. Thus traditional belief and practices conflicts with modern system of health facilities and how culture and socio-economic status of community affects health care of community but with advancement of development and education is drawing more health care attention and demand towards modern system of health care procedures. In most of the tribal societies there is an important role of priest as well as medicine man. This perhaps, indicates the close relationship between culture aspects, diseases and treatment. In the Alpine region of Arunachal Pradesh, health seeking attitudes is influenced by ecological, geo-climatic, socio-economic and socio-cultural factors, which can be modified by intervening in personal hygiene, diet, use of herbs, practices to appease supernatural powers and taboos, during pregnancy and child birth and rearing of child and
maintenance of environmental cleanliness and sanitation. There are also differences in health seeking attitude/behaviour between rich and poor population of the same geographical area.

**Traditional Doctors/Healers**

Role of traditional doctor is crucial in preventing and curing health problems of the poorest people of the Indian community, though they remain often unnoticed. Today’s National Health Policy also does not give importance to the role and services marketed by these healers in a proper way. Although these doctors are established and respected by the local communities, their contribution to public health has not been officially assessed. Unnoticed importance of them are, may be due to the fact that they work in the poorest and most marginalized sections of society and though there are reports of some malpractices done by few of them to earn money/livelihood but the fact is that they belong to the same communities they serve and moreover far cheaper than the modern public health services. Most of them are expert in integration of different medical systems to cure diseases particularly minor ones. Their invisibility is intensified because they work outside the framework of the formal health services and market monopoly. The socio-economic inequalities that prevail in the society and concern for the underprivileged sections form the backdrop of all these practices. Thus limitation of resources some hard choices cannot be avoided. Hence, it can be stated that cinchona bark for malaria was local knowledge among South American Natives and proved to be of enormous value throughout the world. It is noted that each cultural clan has their different perspective and perception of health and diseases. It is also observed that two method of treatment, traditional and modern operate side by side in the same situation. Income constraints affect largely the health seeking attitude of people. The household income plays significant role in decision making for curative health care. It is necessary to establish health care units within the reach of people, but their economic status should also be improved considerably.

**Alcohol**

It is seen that as the average alcohol intake increases, the risk of being admitted to hospital and the length of stay subsequently increases. It is observed that people exceeding the recommended limits for alcohol are adding to the burden on the family, socio-economic and to the delivery of health facilities through longer hospital stay. Alcohol abuse is a more or less a universal problem. By pharmaceutical definition, alcohol is a drug and may be classified as a sedative, tranquilizer, hypnotic or anesthetic depending upon the quantity consumed. Worst of all the drugs, alcohol is the only drug whose self induced intoxication is socially accepted/acceptable in the present day social taboo. Medical anthropologists have provided much help to the planners by providing information on cultural values, social forms and dynamics of social stability and change. On the basis of these studies, health personnel can know how traditional beliefs and practices conflicts with the modern system and how culture and economic status of community affects health care delivery system.

**Treatment of Disease**

Treatment is influenced by cause of disease perceived by the community. Tribal people have some scientific knowledge gathered/learnt through traditional experience through trial and error methods. This knowledge does not exist in isolation, rather is a part of entire socio-cultural-religious system. Stresses on the ramifications of the society, treatment is not always an individual or family affair, as the decision about the nature of treatment may be taken at community level, sometimes by seeing “omen”. Thus it is to be seen from multi-dimensions derived as: a) A Cultural complex of material aspect, tools, techniques, ideas and values and b) A social structure and expansion, i.e. network of relations between groups, clans and categories. It is realized now that knowledge of two aspects of treatment/medicine, in itself and is relation to other fields of social life such as economy, religion, customary system, law and in the context of modern system of medical facilities is becoming increasingly necessary for a comprehensive understanding of the
indigenous society in Arunachal. In recent years traditional medicine is being supported by many so as to be able to combine it with modern medicine.

**Ecological Effect on Health**

**Environmental Factors Affecting Lifestyle and Extent of Disease**

It has been observed that among all the Indian communities, along with some traditional diseases some new diseases are also cropping up due to change in life style and behaviour and deteriorating environmental conditions and discoveries which were undetected or by present day accessibility or population movement and scientific advancement. Coming to the tribal women, as opposed to her rural or urban counterpart in the plains (of India), a peculiar contradiction is that, on the one hand, she enjoys traditional and social equality or sometimes superiority also with the males. But on the other hand she is weaker in health issues. Because of extensive felling of trees by vested interests, the distance between the village and the forest areas have increased forcing the tribal women to walk longer distance in search of minor forest produce and firewood. Given this traditional workload, even women in advanced stages of pregnancy are required to work in fields or walk great distances to collect firewood or forest produce. Overstrain in women is not adequately compensated. To add to the malnutrition and additional workload, there is the destruction of traditional herbs through deforestation and the lack of access to modern medical facilities. This combined with increasing ecological imbalance results in distress and increase incidence of disease. Very often they do not realize that a complication is serious enough to seek care during pregnancy and delivery and if delayed then risk of infant and maternal death increases.

**Challenges for the Future in the Highlands**

Through policies and programme, efforts are underway to reach population including those in the rural areas that face the highest degree of deprivation in terms of health facilities. It is being proposed an alternative model for medical education primarily aimed for generation of the rural health manpower. On acquiring desired qualification Doctors have to serve in rural areas for a prescribed period of time. Noting that due to concentration of health care professional in urban and semi-urban areas, there is a gap of availability of manpower at the grass-root level, for which many short-term and long-term strategies have been taken in consultation with Medical Council of India not only towards mitigating the requirements of rural health manpower, but also towards "capacity building" for health professionals in the country.

**Conclusion**

Arunachal hilly-mountain areas are inhabited by marginalized tribal communities with inadequate health facilities with their right to practice traditional health practices and beliefs. Along with limitations of resources, shortages of trained personnel, ration of physicians, nurses and hospital beds provides an indication of the seriousness of the deficiencies along with economic hardship, geographical isolation and harsh climatic condition of the native people. In such a environment to reach health facilities into communities, homes, individuals who need health care but do not seek it and must discover the causes of disease and to treat appropriately is "Herculean" task, but the government is not leaving any stone unturned to reach health facilities to the doorsteps of community to achieve health for all within prescribed time limit.