



Viewpoint

Practice

Tribal health & culture: Symbiotic model of One Health

Health in common parlance refers to the total fitness of an individual, which would ensure performance of social roles to one's optimum efficiency. Health is an aspect of culture like economic, political, social and religious aspects of life. Culture being an integrated whole, all aspects are inter-related. In any traditional society, like the tribal society, the integration is close knit, the static or equilibrium spirit overriding the dynamic nature of culture. Health aspects could be classified into softer or visible aspects such as ill health or disease, which needs treatment, with or without drugs. Ideas about prevention of disease and promotion of health, and causation of illness are part of hard core of culture, which would manifest in the area of faith. Cause and effect relationship about health and illness therefore, fall in the areas of belief system. The treatment, which may be herbal or of synthetic drugs in modern medicine, is guided by results, which could be classified as material culture, or soft aspects of culture. Magico-religious procedures are also followed in health, more so in tribal society, but not totally absent in the developed societies. There is no vacuum of knowledge or practices, in matters of health and medicine in any society. There are professionals in tribal society, generally referred to as *bhagats* (a ritualistic medicine man) and *vaidu* (herbalist), who have good knowledge of herbal medicine. A *dai* (midwife) who conducts deliveries also possesses good knowledge of medicine, specially related to women and children. Tribal people have faith in them since these are members of the local community, as their kin, and are always available.

Conceptual issues

In classical anthropology, there is no specific ethnography about health issues. There is description about foods offered to gods, guests at rituals. There is also documentation about the *shamans* (spiritual healers), *bhagats* and their magico-religious

practices, not as much about their knowledge and practices about treatment of diseases and about the medicinal herbs, which were later classified as ethnomedicine and ethnobotany, respectively. Although the magico-religious practices of *shamans* or *bhagats* may have psychological effect about cure of ailment, better than the placebo effect, these practices are shunned in public health care, and are branded as superstition and exploitative. However, spiritual healing miracles of Mother Teresa are formally recognized¹.

The basic philosophy and principles of life, which help to evolve cultures through historical process, would be similar, for all communities including the Indian tribal communities and American Indians. The universals of man–environment, man–man, and man–supernatural relationships create distinctive cultures of respective communities. This has also been referred as 'Psychic Unity of Mankind' by some anthropologists². The tribal communities living in isolation in the forest, hill tops in difficult terrain, on islands, not too much disturbed by the invaders in historical times, lived autonomous lives establishing symbiotic relationship with nature. Now, they are citizens of respective Nation-States.

It is obvious that man had to find his food from the environment in the neighbourhood. Studies on humankind, food and environment at different time points suggest that early man (now referred to as indigenous or tribal people) as collector of food, like other living beings in nature, had to get his nutrition and food from the geographical area of his habitat. Man learnt the technique of collecting roots, tubers, fruits, leaves and game by processing it to make it edible. Even now, in the tribal belts, during rainy season, several types of leafy and fruit vegetables are collected by the tribals as food. They know how to detoxify the harmful elements of food products. The following are

a few excerpts chronologically presented to highlight related observations:

- (i) 1955- "In many areas of the world, people whose nutritional pattern appears, according to Western standards, to be inadequate, actually present a picture of health. In sections of Africa where mixed cultivation is still practiced and cash crops have not been taken up, the nutritionists have been surprised to find such health and growth as presupposes adequacy of diet"³.
- (ii) 1965- "Tubers of all sorts, grubs, ant eggs, bird nests, mushrooms, berries, and teas brewed from the buds of evergreen and other plants have supplied diets adequate in proteins and vitamins to countless generations of people who had acquired empirically a nutritional wisdom similar to that of wild animals. The diet of primitive people, quantitatively limited and monotonous as it may be, thus includes many items not recorded in textbooks of nutrition. In many areas, empirical but useful culinary practices have been developed to improve the nutritive value of certain products"⁴, and
 "In theory, all human beings have essentially the same nutritional requirements and suffer in a similar way from the various kinds of deficiencies. In practice, however, immense numbers of human beings all over the world remain healthy and vigorous on diets that are considered grossly deficient by nutritionists and would appear close to a famine ration for the American public. This paradoxical state of affairs can be explained in part by more efficient use of foodstuffs in underprivileged populations. As we have seen, many primitive people have developed empirical practices that permit them to find fairly adequate subsistence under conditions where food supplies are restricted"⁴.
- (iii) 1989- "Dietary habits of populations in different regions of the world have been determined mainly by the availability of foods locally and local practices. Man has evolved his habitual dietary pattern to maintain good health, perhaps after a good deal of trial and error. Satisfaction of hunger is usually the primary criteria for adequate food intake"⁵.
- (iv) 2011- "Man is a cooking animal. The beasts have memory, judgment, and all the facilities and passions of our mind in a certain degree; but no beast is a cook"⁶, and
 "The entire history of the human being has been divided into two parts, time when they used to gather and hunt their food that was grown naturally and

time when they started cultivating and rearing their food. Gaining command over the sources of food through domestication has been called a revolution; undoubtedly that revolution has remained the most significant one in human history. Processing food for preserving or consuming the same, cooking is a part of that effort, marks another extremely significant dividing line between the humans and the non-humans"⁶.

- (v) 2014- "Early tracts by anthropologists and colonial administrators describe these isolated communities, mostly living in remote hills and forested regions, as distinct, relatively homogenous and self-contained social and cultural entities. These studies were mostly preoccupied with their culture and social arrangements, and dwelt less on their material conditions – of poverty, illness and hunger"⁷.

Tribal ethnography

The first field training excursion of the postgraduate anthropology students of Pune University at Maharashtra, India, was undertaken in the interior tribal area at Laheri village, ahead of Bhamragad in Chanda District (renamed as Chandrapur and now a part of newly created Gadchiroli District) in the last week of December 1963. We were shocked to see early morning, the cattle in the open, with dew-drops on their bodies in severe winter. We were wondering why they were not in the cattle shade, until we found the families including babies, sleeping around fire in the open. We were also surprised and embarrassed to see all women topless and barely a piece of cloth covering the thighs. All men were wearing only *langoti*, a piece of cloth covering the genital and anus. The Madia village headman, *Gaita*, visited us every day morning for a cup of black tea. We were carrying powder milk since the tribal people did not milch their cows. According to them, as mother's milk was meant for the babies, cow's milk was meant for the calves. The *Gaita* never carried any water for going for field defecation but used the tree leaves as tissue paper.

One of the days, I went for ritual hunting with the villagers to the forest on the hill. All the tribal residents of the village including the babes in arm went for hunting, except very old persons and women in menstrual period. The villagers had carried the snare-nets and spears to the forest to trap the deer. Simultaneously, the women were collecting the tubers, leaves of trees, skin of some trees and firewood. At the end of the day, all men and women from the village

were carrying some forest collection on their heads except me.

Among the Madia, separate huts are provided behind the main house for women in menstrual cycle to live for four days. Similar custom has been reported among the American Indians. “Menstruating women usually occupied a separate lodge, had a special diet, and were relieved of work during their periods”⁸.

Among the Bhils in the hilly tract of Dhadgaon (Nandurbar district), Maharashtra, during a ritual, three goats were sacrificed to propitiate their deities. As a part of the ritual the deities were worshiped by a representative of each hamlet of the village Jamana. We, students with teachers, as a group, were also treated as a distinct hamlet for the purpose of offering worship. The mutton was cooked in three earthen pots by the side of the river on slow fire with only turmeric and salt as spices. Similarly, during field trip in Bastar, we were supplied with two big earthen pots to cook rice and chicken^{9,10}.

At a Saturday weekly market, we could see an old woman selling three brinjals or two to three fish on a leaf for barter sell. Sonu Patil, a local *Thakar* tribal leader from Kortad (Mokhada *taluka*, Palghar District), showed me at a shop, from a distance, as to how the tribals were exploited. A woman came with Ragi millet, on her head in a piece of cloth, gave it to the trader and asked for some salt, chilli and turmeric powders seen in glass bottles. There was no consideration or discussion about the price of her millet or of what she purchased (value-in-use). We have seen a tribal person walking five kilometers to a weekly market to purchase two tablespoonful of edible oil, in a small bottle. At Daskot village, in the same area, we saw the tribals leaving their cattle in a nearby forest on the hill, for grazing, during entire summer. They would bring them back only after the onset of monsoon.

This area, though in close proximity to Jawhar town, was a part of Mokhada *taluka*. After the construction of road linking Sakharshet (having a primary healthcare center) to the villages, Vavar and Vangni up the hills, 135 children from these villages perished in an epidemic of measles. As Symington noted in his poverty report¹¹, written more than 80 years ago about West Khandesh Bhil area, the problem of tribal people was not their isolation but increasing contact with the outside world. Raja of Aheri in Chandrapur (now Gadchiroli district) told in 1963 that the construction of roads in tribal areas facilitated their exploitation by the traders.

At Suryamal village in Mokhada *taluka*, a woman named Mangibai Thakar did bone setting on sheep, cattle and humans. She would use a bamboo stick and tie the bones after setting and would also give internal medicine for which she charged ₹ 10/ per case. Patients from nearby non-tribal urban areas also came for treatment.

Christopher Columbus and such other sea voyagers from European countries, many of them heading towards India for its black spices such as black pepper and clove (black gold), navigated to the shores of North American Continent, identifying the land as that of India and the people they confronted as Indians. Indigenous people got branded as ‘Indians or Red Indians’. Some of the voyagers, who became ill, were treated successfully by the ‘Indian’ medicine men with herbs. These examples are well documented, by the voyagers as follows.

- (i) “During the bitter cold winter of 1535 – 36, the three ships of Jacques Cartier were frozen fast in the fathom – deep ice of the St. Lawrence River near the site of Montreal. Soon Scurvy was so rampant among them that by mid March twenty five men had died and the others were so ill that hope for their recovery was abandoned. Cartier had the good fortune to encounter once again the local Indian Chief, Domagaia, who had cured himself of the same disease with ‘the juice and sappe of a certain tree’. The Indian women gathered branches of the magical tree ‘boiling the bark and leaves for a decoction, and placing the dregs upon the legs’. All those so treated rapidly recovered their health, and the Frenchmen marveled at the curative skill of the natives”.
- (ii) “These Indians had never heard of vitamin C, and there was no value in the external application of their remedy. More than 200 years, after Cartier’s experience, James Lind a British Naval Surgeon having read of these incident, launched the experiments which proved the dietary basis of Scurvy”.
- (iii) “Logan Clendenin reports that the Cartier account was noticed by James Lind of Edinburgh (1716-94), a British Naval Surgeon whose experiments with Scurvy patients led to the conclusions that lemon juice was the best preventive”⁸.

The indigenous knowledge about the environment and its judicious use for the immediate needs is visible in a tribal village in every house. A wooden structure, walls of bamboo or local wooden sticks cemented and

plastered with the mixture of clay and cow dung, roof of handmade baked earthen tiles is the house. One big room is divided into compartments, indicated by mud thresholds or wooden sticks, a raised mud wall to keep the drinking water pots, and a kitchen in a corner. Opposite corner could have a bath place for women, made private with a mud wall. There would be a hard pit in the room to hand-pound paddy, millets and pulses.

One part of the room with separate entrance is reserved for cattle and sheep, with a drain for the urine to go out of the house in the backyard kitchen garden. The room may have a wooden ceiling with a wooden ladder to climb, to store the grain in bamboo baskets or bins made of thick ropes, made from grain husk. There is nothing purchased from the market. In traditional houses, one can see, cooking and kitchen utensils made from pottery and stone.

Outside the house could be seen heaps of palm-shaped leaves to instantly lift the dung of fowl, due to their movements in the room. The room and surrounding is cleaned at least thrice in a day with a hand-made broom. Size of the house is a status symbol. Except for the supporting beams and pillars, all wooden material is collected as dead wood in the forest, including fuel wood. Wood for beams and pillars is also from the forest, but from the trunk of live trees, and processed in water to last for decades and seem to be termite free. A stone slab in the forest was seen being revered by the tribal people, with an explanation that the female deity with head-load of fuel food rested on the slab, when felt tired of carrying the heavy load.

No child defecation is found around the house, no smell of urine or fecal material, in the village, unlike mentioned as an identity of caste-peasant village, by Mahatma Gandhi. Even in the forest, open defecation is covered with clay. Organic fertilizer by way of cow dung is used, or the ash of dry leaves spread and burnt on the farmland. Co-operative life and equality is seen by way of equal distribution to each family of the offerings made to local deity, as also from the game from ritual hunting expedition in the forest. No wild animal is killed for the pleasure of hunting.

Even among caste-Hindu peasantry, there is a concept of sacred trees, rivers, hills, which are worshipped. The leaves, grass, flowers and fruits offered to the deities are of medicinal value and used accordingly when the need arises.

We find the tribal communities living in symbiotic relationship with nature, taking care of their health,

the health of their domestic animals as members of the family and of the environment around them. If there is an epidemic, it could be identified as due to evil spirits. All the villagers abandon the village for a week or so, migrate to the forest and return after following certain rituals. Periodic isolation is followed in such cases. In areas where every house had bamboo compound walls, with a gate, we saw a wooden barrier at the gate indicating the new birth, to shy away the visitors. The gender friendly sex ratio among the tribal communities has never been studied by the mainstream society which asks tribal people to join them. This is probably due to the custom of bride price.

Traditionally, land and forest have never been an issue of ownership or property in tribal economy. Tribal economic organization has been labelled as primitive communism in Marxist literature¹². Natural resources including land have been used for basic needs, but have never been owned by individual families. At best, there has been community ownership of natural resources.

In a field observation in 1995, among the *Dongria Kondhs* of Odisha, it was seen that the land acquired by the local community through *Podu* (shifting cultivation) was found to be distributed equally among the tribal families in a village, on which about 18 varieties of crops necessary for consumption were cultivated. In Bastar, a riverboat in 1997 was found to be owned by the community for crossing the river from one bank to another, without any fee being charged, and without any assigned boatman.

Policy corrections: tribal development

The British *Raj*, however, claimed ownership of the forests to use the resources for their opulent lifestyle and for creating infrastructure such as rail-roads. The tribal economy has traditionally been a subsistence economy in which food security is sought through collection of forest products, fishery, and seasonal cereal production using primitive technology. Historically, the tribals have never been the producers of food as they could get enough from nature through collection of food. The inseparable relationship of tribals and forest has been proved historically when during famines in the past, tribals did not suffer as much as caste peasantry, since the tribals continued to get food from the forests.

It is believed that current problems of hunger and undernutrition among the tribal people are due to denial of free access to their natural food resources in forests. Besides food shortages, there is shortage of medicinal

herbs which also affects commercial production of Ayurvedic and Unani drugs¹¹.

There are tribal healers who have good knowledge of medicinal plants in the vicinity, and the *dais* who have been providing obstetric care during pregnancy and child birth. In the Government Health Care Programme, no consideration is given to the existing indigenous knowledge and practices of the people about health and nutrition. Probably the solution lies in upscaling the indigenous knowledge of the tribal people and complementing it with modern scientific knowledge. If the services of local healers with knowledge of medicinal herbs and services of trained *dais* are co-opted in health care, scenario could be more positive.

Conclusion

To summarize, special treatment to tribal communities guaranteed by the Constitution of India is required due to historical and geographical factors. Their problems of health and nutrition are the result of blocking their access to traditional resources of livelihood. The administrative mechanism which is the legacy of regulatory 'British *Raj*' pattern has to be logistically minimized to restore back the functional implementation of their traditional pattern of self governance, bestowed by 73rd Amendment of the Constitution, symbolized by the Panchayat Extension to Scheduled Areas (PESA) Act (1996)¹³ and the Forest Rights Act (FRA)¹⁴. The benefits of science and technology have to be made accessible to them through affirmative action. Towards this, capacity building of tribal youth, female members in *Panchayati Raj* and community based organizations (CBOs) are to be given priority.

Leaders like Mahatma Gandhi have been aware about the heritage of tribal communities living in communion with the environment. The proverb, "nature provides for everyone's need, but not for everyone's greed" originated in this realization of traditional tribal life. Gandhiji's communications with Leo Tostoy and Rabindranath Tagore have been about these philosophical issues. Gandhiji had studied the lives of Zulu tribals in South Africa from close quarters. He had named the village, he established, following the principle of self-help in South Africa, as 'Tostoy farm'. His term '*Daridranarayan*' refers to the tribal people. The term, '*Adivasi*' coined by his disciple, Sri Thakkar Bappa, to denote tribal people, was adopted by Gandhiji. *Adivasi* has been one of the 18 constructive

programmes of Gandhiji¹⁵. In this context, the debates in the Constituent Assembly concluded to provide special treatment to tribal communities guaranteed by the Constitution of India. The 73rd Amendment of the Constitution, symbolized by the PESA¹³ and FRA¹⁴ were designed to restore back the functional implementation of their traditional pattern of self governance.

Mahatma Gandhi's talisman about remembering the last man will always provide direction to plan the holistic and integrative development programmes, for the tribal communities, "according to their own genius", as Jawaharlal Nehru advocated¹⁶. In the context of integrated and holistic tribal culture as a role model, One Health has to be understood as a universal value of humanity.

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