

## Indigenous Knowledge: Implications in Tribal Health and Disease

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**ABSTRACT** Indigenous knowledge research is a recent trend in the sociological and anthropological domains. Hitherto, all developmental programmes initiated especially by the Government agencies have adopted a top-down approach, i.e., planning, distribution, and resources in-flow and perceptions flow from top to down. This trend has been recently reversed with a growing realization that for any successful implementation of planned programme, people's participation becomes imperative. In this context, participatory research techniques have been generated in different social sciences. The main thrust in such an approach is to make the people or the subjects into active collaborators in bringing about desired change. In this background research on Indigenous knowledge systems is growing steadily and anthropological contributions in this area have been greatly acknowledged, as the basic research methodology adopted by Anthropologists is participant observation method. In fact, the pioneers in documenting indigenous knowledge systems all over the world, especially among the less advanced, disadvantaged tribal and rural masses were none other than the Anthropologists. In the area of health and disease too, many anthropologists have undertaken documentation of health-related issues. Nonetheless, explanations offered in this domain are mostly divinatory in nature implying the divine wrath as causative of all diseases. In this paper, an attempt is made to illustrate the health status of the Tribals of Eastern Ghats and their health seeking behaviour and beliefs. Despite the fact that tribal societies exhibit similarities in many aspects related to health and disease, local variations persist.

### INTRODUCTION

The study of indigenous knowledge is a new revolution set in the domain of Anthropology. In its wake, this new knowledge interface has created a new awareness on the part of Anthropologists to critically look at their conventional methodological armour. Indigenous knowledge, as an area of anthropological interest, deals with a variety of hybrid studies borne out of a battle of different perspectives, leading to a critique of our understanding of knowledge as such. A holistic perspective on human knowledge would help us understand the implications of indigenous knowledge especially in the areas of health and disease. In this context, of late, Anthropologist's ability to facilitate incorporation of indigenous knowledge into development process has assumed greater significance.

#### **Knowledge and the Development of Indigenous Knowledge**

An ideal system of knowledge is generally seen as one that derives its corpus from abstract principles by systematic deduction. Modern academic knowledge is 'a way of knowing' that emerged historically through the union of a

number of ideas which are subjected to global systematization through "centers of calculation", nurturing its spectacular accumulation, scope and power (Latour, 1987).

Such an understanding is questioned with the advent of the recognition of indigenous knowledge as a living and dynamic tacit knowledge interfacing with an all encompassing human activity in all societies, which "scientific knowledge is not always capable of validating" (Brouwer, 1998). The heretical idea gained currency that 'other' people have their own effective 'science' and resource use practices and to assist them we need to understand their knowledge and management systems and "those others" may have something to teach us (Atte, 1992; Barrow, 1992; Rajasekaran, et al., 1991).

In his exploration of the ethnography of human knowledge, Barth (2002) maintains that "knowledge in its different modalities can range from an assemblage of disconnected empirical detail to a 'theory of everything'... as we are in a world constructed on principles of sociality and morality, not mechanical causality". Indigenous knowledge is explained as "local, orally transmitted, a consequence of practical engagement reinforced by experience, empirical rather than theoretical, repetitive, fluid and negotiable, shared

but asymmetrically distributed, largely functional, and embedded in a more encompassing cultural matrix, that which is not epitomized by being a part of a dominant Western scientific knowledge” (Ellen and Harris, 1997). By definition, Indigenous knowledge research is a “small scale, culturally specific and geographically localized, infrequently encompassing regional ecosystems” (Sillitoe, 1998). This position highlights the centrality of localized socio – cultural context in understanding and appreciating indigenous knowledge.

Barth (2002) presents an analytical framework to distinguish three components of knowledge viz. substantive corpus of assertions, a range of media representation and a social organization. He demonstrates that all the three are interconnected and appear together in particulars of action, in every transaction in knowledge, in every performance. In this context, the tribal cosmology, rituals and religious traditions fall within this concept of knowledge. These traditions also provide the people with a world-view and to act accordingly. They encompass aspects of nature and cosmos, health and life, ethno psychology, human morality and a panoply of supernatural entities that erratically affect and may even invade and possess human beings.

### **Tribal Ethno-medicine as a Science**

With the advent of indigenous knowledge perspective, there is a radical shift in the mind set from viewing native systems of thought as naive and rudimentary, even savage to a recognition that local cultures know their plant, animal and physical resources intimately (Nazarea, 1999). If we reflect on the idea that traditional ethno-medicine as science, we must ask how this can be so: scientific principles are constructed through scientific theory and practice where as tribal healing is rooted in the latent knowledge structures and livelihood practices of local people. Both kinds of knowledge are grounded in social practice but very different kinds of practice, based on different categories and assumptions, involving particular experiences, values and cultural definitions,

Atran (1999) maintains that indigenous knowledge structures are like scientific theories in that they generalize from concrete experience, but unlike theories they are not systematic formulations of laws or methods. Rather, they involve the adjustment of forms of human

livelihood to the environment in which they are embedded. The idea that indigenous knowledge must be science because it leads to empirical results consistent with Western Science is based on a concept of nature as a “pre given” and “science” as the only means of discovering its universal laws (Berlin, et al., 1994). However, the nature itself is not perceptually ‘given’ but ‘constructed’, in the microscope or in the forest, by ‘perceptually guided action’, the practices that make up our experience (Nigh, 2002; Varela, Thomson and Rosch, 1991). Attempting to force indigenous knowledge into the mould of “scientific principles” is to reduce an objective reality independent of human experience.

Tambiah (1990) attests that, in reality, rather than an empirical ‘folk’ science conforming to universal principles of ‘real’ science, what we have is multiple contrasting orderings of reality. People construct their worlds by their knowledge and live by it, and therefore an Anthropology of knowledge should ask how these varieties are variously produced, represented, transmitted and applied.

### **Indigenous Knowledge and New Applied Anthropology**

Indigenous knowledge research sets out explicitly to make connections between local peoples understanding and practices and those of out side researchers and development workers, notably in the natural resources and health sectors, seeking to achieve a sympathetic and in-depth appreciation of their experience and objectives and to link them to scientific technology (Sillitoe, 1998). In this context, participatory research techniques have been generated in different social sciences and the main thrust in such an approach is to make the people or the subjects into active collaborators in bringing about desired change. Technology transfer is now considered not as a top – down imposition but as a search for jointly negotiated advances, which results in cost-effective, time-effective programmes generating appropriate insights readily intelligible even to non-experts. Thus participatory approaches seek a more systematic accommodation of indigenous knowledge in research and technological interventions (Schaffer, 1989). The demands of indigenous knowledge and participatory research require the establishment of partnerships founded on

dialogue. Anthropologists are better positioned to take up the tasks of incorporating indigenous knowledge into the development process as they are the pioneers in documenting indigenous knowledge systems through participant observation method that involves living with the subjects for a very long period. This being the hallmark of Anthropological research, the role-play of 'Anthropologists as consultants' in implementing development programmes becomes much more relevant compared to other social scientists.

Haile (1996) proposes that the idea of harnessing Anthropology to technical knowledge to facilitate development puts the discipline where it should be, at the center of the development process. This focus on indigenous knowledge has already resulted in reappraising theoretical as well as methodological aspects of Anthropology. The liability of indigenous knowledge is reflected in the theoretical shift from a structural to a processual and to a post-modernist perspective. Certain methodological advances to tailor interventions to local conditions have already been put forward by the Anthropologists in 'doing Anthropology' by a very different process.

The process involves the brokering of knowledge in which Anthropologists become researchers for and consultants to indigenous people and traditional communities (community-controlled research). They can also oversee that the indigenous knowledge is not patented for but used in the production of universal medical technologies, not for private commercial benefits. This will establish the 'dialogue' as the cornerstone of a new Applied Anthropology. In this endeavour, the greatest challenge to Anthropology vis-à-vis development debate is to develop criteria and indicators for sustainable development – health environments, sustainable livelihoods that are based on local, indigenous perceptions, classifications, values, measures of environmental quality and change that reflects local observations and knowledge systems, even if they seem 'magical', whimsical or destructive to the outsider.

#### **Health Status of Eastern Ghats Tribals**

Eastern Ghats in South India are a long chain of broken hills and mountain ranges spread over three states, Orissa, Andhra Pradesh and Tamil

Nadu. These Eastern Ghats are inhabited by a number of tribes and of the 33 scheduled tribes in Andhra Pradesh, 22 live in Eastern Ghats. Some of the prominent tribes of North Coastal Andhra Pradesh are, the *Bagata*, *Gadaba*, *Jatapu*, *Savara*, *Konda Dora*, *Khond*, *Valmiki* etc.

Poverty is the main cause for illness and early death among the tribals. 'However, lack of access to right foods: iron, protein and micro-nutrients such as iodine and vitamins, is the principle cause for the very high incidence of nutritional deficiency diseases: anaemia, diarrhea, night blindness, goiter, etc. These factors combined with lack of access to basic health care services is the main reason for the unexceptionally adverse differentials with the more developed parts of the state: maternal mortality is eight per 1000, (going upto 25 among some tribal groups) as against four per 1000 for the state; infant mortality rate is 120-150 per 1000 compared to 72 per 1000; and while it is nine per 1000 crude death rate, with 30 per cent under-five mortality for the state, among some of the major tribal groups such as Savaras, Gadabas and Jatapus, the death rate is as high as 15-20 per 1000 with over 50 per cent of deaths of children under five. Longevity of life is lower; there is evidence of a faster decline in the sex ratio during the decade 1981-1991 and an unacceptably high level of about 75 per cent stunting/wastage among children. Under TB and malaria, the tribals suffer disproportionately to their population – the rate of incidence of TB among tribals is estimated to be double and under malaria, case incidence is estimated to be over 18 per 1000, mostly of the *P Falciparum* variety, accounting for 75 per cent of the state's total deaths on account of malaria' (Sujata Rao, 1998: 481-482).

#### **The Cultural logic of Tribal Medicine in Eastern Ghats**

Tribal religion is mostly animistic although the influence of Hinduism is seen in some religious practices. Invoking divine beings for blessings is a common practice at the time of agricultural operations. In the area of health too, dependence on divinatory forces is distinctly visible in their curative practices.

In many tribal societies knowledge related to these aspects is treated as esoteric and is associated with certain specialized roles, inherited by certain people, most notably, the shaman. The

medicine man or shaman is called as *Yejjodu* among the *Savara* and *Jatapu*, *Guruvulu* or *Guru* among the *Bagatha*, *Konda Dora* and *Valmiki*, *Vijjodu* among the *Koya*, *Vaidyadu* among the *Konda Reddy*. Just as supernatural wrath casts its spell occasionally in the form of varieties of illnesses, the shaman looks at the cure for these illnesses as located in the very supernatural beings who cause them. Thus, the etiology of the disease and the cure of the disease are located in the same source, i.e., the supernatural. The shamans are powerful stewards in a symbolic and metaphysical domain which is central to 'supernaturalism' of the tribal communities. By supernatural favour, the shaman is believed to possess the gift of healing as well as the knowledge about medicinal plants.

The shaman treats disease essentially by religious means, through sacrifice and prayer. Herbs have healing power because of the prayers recited and rituals performed by the shaman. The etiology of sickness varies – human intention and behaviour, either of the patient or of others in the patient's life-world, result of deviant behaviour, disrespect towards elders and refusal to meet obligations of reciprocity with neighbours and relatives etc., Misdemeanor results in soul loss or illness. Also, economic or other success or refusal to share good fortune provokes envy and sorcery among neighbours. Etiology, diagnosis, treatment and prognosis among the tribals of Eastern Ghats show more similarities than variations.

The curing ceremonies are 'socially reconstituting and reoriginating' (Kapferer, 1996). The shaman seeks to restore the patient's relationship to the physical, metaphysical and social worlds – to correct the imbalance that is the root cause of illness. The recovery of good health and good relationship with fellow community members is achieved by one or more curing ceremonies.

Unlike the linear cure-for-disease equation of modern (allopathic) medicine, the local medicine practiced by shamans (Harper, 1957) who use herbs is located in a more complex 'socially reconstituting and re-organizing' context. Shamans base their practices on holistic epistemologies of illness and curing handed down through generations (Rajpramukh 1976; Kakar 1982). In their therapeutic interventions, shamans seek to manipulate the bodily, spiritual and social domains at once. They do not sharply dichotomize between organic and supernatural

causes of disease – all sickness has both aspects, though in varying degrees, and both aspects must be treated if the patient is to be cured. The Valmiki *Guruvulu* (shaman) maintains that the herbs are useful, but it is the confession of misbehaviour and repentance is what really cures the patients.

The ethnography of a wide variety of tribal communities in the Eastern Ghats in general suggests a native cosmology in which the notions related to metaphysical balance is a key concept. It is the belief that "continued human existence is predicated on the maintenance of cyclic cosmic balance that both affects and reflects earthly conditions" in terms of "harmony between the physical and metaphysical worlds" (Fischer, 1999: 480).

### Indigenous Knowledge of the Tribals

The Diagnostic Procedures and Techniques of Shamans among different tribes of Eastern Ghats present many similarities. Whenever any person is possessed by evil spirits, the person's pulse becomes very weak and his/her hands become as cold as ice and the patient appears restless. The first step the Shaman takes is to place a winnow containing burnt cow dung cake over the head of the patient. He inscribes the name of a popular god on this cow dung ash. Then invoking the name of his Guru, he chants some mantras to propitiate his spirit-familiar. Thus he commissions his spirit-familiar into the ash which now becomes sacred powder (*vibhoothi*) and smears it on the forehead of the patient. Then he takes a handful of this sacred powder and blows it over the head of his patient. Immediately the evil spirit leaves the patient and the patient regains full consciousness. If the spirit still refuses to leave the patient, the shaman mixes pepper powder with the juice extracted from *Tulasi* leaves and smears it on the eyes of the patient. This medication causes burning sensation in the eyes and tears roll down the eyes of the patients relieving the spirit too. In this haunted condition the patient also would be able to reveal the name of the spirit when his little finger's nail is pressed hard.

If the sickness is due to sorcery or witch craft, the shaman performs a prayer to invoke his spirit-familiar and decides the course of treatment. It is also believed that the spirits of the dead ancestors also appear in the dreams of either the patient or the shaman and are informed of the mode of treatment to be followed.

The shamans in this region also use talismans. They tie them around their neck or upper hand, even after warding off the evil spirits, to protect their patients from a relapse of ghost-haunting.

To know whether the patient is affected by ghosts, spirits etc., they make the patient smell a dried herb 'Adavi Pasupu'. If the patient feels no smell, it is believed that the patient was affected by a ghost. But if he feels a pungent and foul smell, he is considered normal and healthy. They, then use "Voocha Kommu" to throw away the evil spirit.

To know what kind of ghost or evil spirit is acting on a patient, they usually feel the pulse (*nadi*). Some specified parts in the palm have been given names. They hold the wrist of the patient with one hand, and study the points on the palm. At whatever point they feel the change, that point is the ghost, which is said to be responsible for the illness. Then they use the appropriate method to ward off that ghost.

To know the life chances of a person bitten by a snake, they crush some kinds of leaves in their palms. If, it produces white foam, they believe that the patient would survive, but if only water comes without foam, the patient would, for sure, die.

To detect leprosy, they rub the leaves of *Kodimala* on the suspected area of the body. If the patient feels itchy, the skin is normal, but if the patient feels no itching sensation, the skin is supposed to be infected with leprosy.

Many of the common diseases are treated with the locally available herbs, for example, for cold and cough, a powder made of Devadar bark, and locally called *Pherangi chekka* is used. The powder is mixed with water and is gulped. It is believed that this powder helps in better digestion too.

Similarly for whooping cough, the medicine man ties a *Raksha* (Talisman) around the neck of the child. This *Raksha* is in the form of a necklace, made out of the fiber of some local tree. If the cough is severe he gives *Tuniki Ginga*. These seeds have to be crushed into a fine powder and added with some water, made into a fine paste and administered into the child, orally.

For measles, chicken pox etc., the treatment is through the propitiation of local deities. The shaman performs a ritual and uses the flour of *chollu*, *turmeric* and some kinds of flowers. During the ritual he chants mantras in front of the fire and throws *Sambrani* (Frankincense) into it.

The smoke that emanates is diverted to the body of the patient and is believed to give relief.

For epidemics, sacrifice of goats and chicken is practiced. In case of dog bites and other wounds, that particular bitten area is bound with a rope made of jute and some crushed herbs and medicinal leaves are applied and tied with a cloth.

When a person shows unusual symptoms and changes in behaviour and becomes weak gradually in spite of other curative measures, the people believe that he is affected with the *Dumba* (evil spirit). The medicine man possesses innate powers and based on the symptoms identified, a particular ancestor of a spirit is considered responsible for the ill health of the person. Then he follows a procedure to get in to trance to identify the deceased ancestor. That procedure requires materials like "korra" flour, *Sindhur*, turmeric powder, *sambrani*, eggs and different types of fruits and flowers. He also chants some mantras. If the patient dies in spite of the shaman's efforts, the blame is passed on only to the powerful evil spirits, but not to the shaman.

#### NOTE

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