TRIBAL MEDICINE - AN OVERVIEW

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CHAPTER 2

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Tribal medicine is a part of Traditional medicine and is mainly practiced by the tribals in the forest. It is still in the primitive form. A study about tribal medicine will be incomplete without the background of traditional medicine. So in this chapter a brief description about traditional medicine and tribal medicine are given.

2.1 Traditional medicine

Traditional medicine has been prevalent in every country since the beginning of the civilization. According to Siegerist (1951), a medical historian “every culture had developed a system of medicine and medical history is but one aspect of the history of culture”. Traditional medical systems vary from one culture to another, there are common elements connoting specific implications in them. The elements are sorcery and witchcraft, divination and herbal medicine (Joshi, 1990). According to Dubos (1969), “ancient medicine was the mother of sciences and played a large role in the integration of early cultures”.

The term “traditional medicine” refers to ways of protecting and restoring health that existed before the arrival of modern medicine. As the term implies, these approaches to health belong to the traditions of each country, and have been handed down from generation to generation
Not all health practices are health traditions. There are two criteria for calling a practice a tradition. Firstly, traditions are those practices that are self-perpetuating. They are practices that are transmitted without the intervention of any agency or institution. Furthermore, they form the unwritten repertory of health practices that have been passed down the generations through word of mouth for at least one century and continue to be passed down even today (Shankar et al, 2001).

2.1.1 Traditional medicine: a historical background

Since antiquity, the most primitive man had some rudimentary system of medicine to ameliorate pain and disease in order to lead a productive socio-economic life in the society. Over the ages his experiences led to empirical techniques and methods of healing, which in due course of time crystallized into distinct systems of medical practices.

The early therapeutic agents were mainly derived from his immediate environment and consisted of plants, animals and other naturally occurring substances (Reddy, 1986).

The ancient civilization of India, China, Greece, Arab and other countries of the world developed their systems of medicine independent of each other, but all of them were pre-dominantly plant based (Planning Commission, 2000).
Chinese medicine claims to be the world’s first organized body of medical knowledge dating back to 2700 BC. Hygiene, dietics, hydrotherapy, massage, drugs, were all used by Chinese physicians. They were early pioneers of immunization.

Egyptians believed that disease was due to absorption from the intestine of harmful substances. Diseases were treated with enema, blood-letting and a wide range of drugs.

Mesopotamia was the cradle of magic and necromancy. The basic concepts of medicine were religious and taught and practiced by herb doctors, knife doctors and spell doctors. The oldest medical prescription comes to us from Mesopotamia, dating back to 2100 BC.

Greeks rejected the supernatural theory of disease. The Greeks postulated that health prevailed when the four humors, earth, air, fire and water were in equilibrium and when the balance was disturbed, disease was the result.

The Romans had the keenest sense of sanitation. About diseases, they observed that disease is due to three factors predisposing, exciting and environmental factors, a truly modern idea (Park and Park, 1991).
2.1.2 Indian context

There was a system of medicine with professional healers in India for several centuries before and after 2000 BC. Harappan culture contained the seeds of later Indian medicine. That apart, a few lines on definite nature of medicine are to be found in the earliest literature of India, the Rigveda, the data of which may mostly be referred to the later part of the 2nd millennium BC. During this period disease was believed to be mostly due to wrath of gods and effect of evil spirits and healing art was followed by prayers, several hymns and often aided by the herbal remedies and other treatments and they cured some diseases like blindness, lameness and even leprosy. In the late 5th or 6th century before Christ, the traditional Indian medical system formed and references can be found in the Hindu texts. During this period, there was a strict system of socio-religious taboos followed by controlling the contacts and dietary habits of the people. In course of time the science of medicine, which came to be known as Ayurveda was formed and a line of sages were believed to have carried the original lore of the Ayurveda in various eras, down to historical times. In the later stage, Charaka and Susruta contributed to popularise the Ayurveda in India by bringing out Sanskrit medical manuals namely, the Charaka Samhita and Susruta Samhita respectively [Reddy, 1986].

The pharmacopoeia of the Vaidya was very large and Susruta alone mentioned over 700 medical herbs. (Jolly, 1901). Surgery was also practiced, like the removal of calculi from the bladder, the replacement of bowels exposed as a result of wound,
stiching the stomach wall and the caesarean section in the case of mothers who died before giving the birth. The achievements in plastic surgery were unrivalled anywhere in the world until the 18th century [Kutumbiah, 1962]. A hospital in the true sense of the term is clearly described by Fa-hsien, the Chinese traveler who visited India at the very beginning of the 5th century AD (Beal, 1957).

Soon other systems of medicines like Sidha, Unani etc. also emerged and continued to develop with Ayurveda. These systems have actually survived the onslaught of ages primarily because of the systematic method in which the practitioners of these systems recorded their knowledge. But in contrast, tribal medicine being passed from generation to generation by virtue of word of mouth alone is actually losing its ground.

2.1.3 Definitions of traditional medicine

There are number of attempts to define traditional medicine by taking into account the concepts and practices are being gathered, analysed and evaluated by several scientific disciplines but there is no much satisfactory or comprehensive type of definition, which can cover all the aspects of traditional medicine in its true logical spirit [Reddy, 1986].

According to Reddy, “Traditional Medicine is that of whole, which includes a holistic knowledge and practices oral or written, functioned in diagnosis, prevention and curative aspects of illness and disease to promote total well-being, confined
explicitly or implicitly on practical experiences and observations or know – how techniques with or without local/regional culture having overtone of religion or not.”

“The sum total of all the knowledge and practices, whether explicable or not, used in diagnosis, prevention and elimination of physical, mental or social imbalance and relying exclusively on practical experience and observation handed down from generation to generation, whether verbally or in writing” [WHO, 1978].

2.1.4 Classification of traditional medicine

The area coming under the purview of traditional medicine can be broadly classified as follows:

Figure No. 2.1
Classification of traditional medicine

Traditional Medicine

- Little traditional medicine or folk streams
  - Folk medicine or Ethno medicine or Tribal medicine
- Great traditional medicine or classical streams
  - Ayurveda
  - Unani
  - Sidha
  - Naturopathy
  - Yoga
  - Homeopathy
According to the Task Force Report, Government of India, ‘folk streams’ and ‘classical streams’ are the two divisions of traditional medicine. Folk stream comprises mostly of the oral traditions practiced by the rural villages. The carriers of these traditions are millions of housewives, thousands of traditional birth attendants, bone setters, village practitioners, eye treatments, treatment of snake bites and the traditional village physician/herbal healers, the ‘Vaidyas’ or the tribal physicians. These streams of inherited traditions are together known as Local Health Traditions [LHT].

Classical stream is the second level of traditional health care system in the scientific or classical system of medicine. This comprises of the codified and organised medicinal wisdom with sophisticated theoretical foundation and philosophical explanations expressed in classical texts like ‘Charaka Samhita’, ‘Susruta Samhita’, ‘Bhela Samhita’ and hundreds of other treatises including some in the regional languages covering treatises of all branches of medicine and surgery, Systems like Ayurveda, Sidha, Unani, and Tibetan etc are expressions of the same [Planning Commission, 2000].
2.1.4.1 Folk stream/Little traditional medicine

a. Folk medicine

The concepts and practices in folk medicines are based upon the humoral theories, cosmological speculations, magic in learned/oral medicine and religion. The practice field of this medicine is midwifery, bone setting, supernatural cures of various types with main emphasis is on utilizing natural herbs, roots, plants and other natural things in a given eco-system. The knowledge of such medicinal plants and preparation of medicine are still handed down mostly in oral form to the next generation of such practitioners [Chaudhuri, 1986; Reddy, 1986].

b. Tribal Medicine/Ethno Medicine

The tribes who lived in isolation practiced their own system of medicine, which is known as tribal medicine or ethno medicine.

2.1.4.2 Classical stream/Great traditional medicine

a. Ayurvedic medicine

It is basically concerned with preserving and promoting health and longevity amongst the early settlers. In later years it developed into an entire system of medicine and was practiced scientifically as a particular approach to health care. The basic concept of total management of health and preservation and vitalisation of life was not disputed. In fact it combines in health cure system, the humoral concepts of hot food
Ayurveda tends to focus on the use of single herbs for most symptoms. However, the combined use of several herbs may be recommended for a particular disease. Ayurveda is based on theories more closely related to the Greco-Roman concept of the four humors – blood, phlegm, yellow bile and black bile than to the Chinese concept of yin and yang.

The Ayurvedic forces are the three doshas – Kapha (cold, moist), pitta (hot, dry) and vata (wind). These tridoshas can be subdivided and they interact with the gunas (basic psychological qualities of the mind) and other characteristic that are perceived to be relevant factors that govern life and health. These philosophic concepts apply universally to all aspects of life in a complex fashion (Aggarwall, 1998).

b. Unani medicine

In ancient Greece the system of unani medicine was developed during early Islamic period and has been brought to India with the Islamic rule during 1101–1707 A.D. Over the centuries of preservation and addition to the system as well as decades of research and crystallization of the system, it has become almost indigenous in India. Though the system was practiced by Muslim medicine men called Hakims, the system is still based on herbal medicine, different minerals and metals.
like gold, silver iron, copper etc., as well as a lot of indigenous mineral abstracts like snake venom, juice extracted from liver and kidneys of monkeys, goats and other cattle and birds. Minor forest produce like honey, herbs, and fruits as well as flowers and seeds of medicinal plants are also used in the unani system of medicine [Chaudhuri, 1986].

c. Sidha medicine

It is a variant of Ayurvedic medicine, which is practiced in Tamil speaking area with more emphasis on the extensive use of minerals and metals. Specially mercurial preparation in medicine, with the sophistication of local culture and tradition. In fact, the word Sidha in Tamil is almost synonymous to word Ayurveda [Reddy, 1986].

d. Naturopathy and yoga Medicine

This could be taken as integration of folk medicine and ayurvedic medicine. The concept was popularised by Gandhiji through personal experiences and observance with natural cures. This system of health care includes indigenous medicine, dietary regulation and yogic exercise relating to the specific areas of bodies as well as external application like mud bath, sunbath, body massage as well as exercise on mental concentration. These methods have been very popular in the west and in the European countries in the last few decades (Aggarwal, 1998, Reddy, 1986).
e. Homeopathic medicine

The system is originated in Germany and later practiced and developed in Asia and European countries. India is strongly following this system of medicine. The concept of this medicine is of creating a resistance to an illness by administering small doses of specially grounded medicines in biological ritualism. The practice of homeopathic medicine in India is very much assimilates the elements of Ayurvedic and Unani medicine system, which was later institutionalised as a form of medicine [Reddy, 1986].

2.1.5 Traditional medicine in the present scenario

a. World context

Traditional medicine plays an important role in health care in both developed and developing countries. The World Health Organisation estimated that 80 percent of the populations in developing countries rely on traditional medicine, mostly plant drugs for their primary health care needs. It is estimated that over one-third of the world’s population lacks regular access to affordable essential drugs. For these people modern medicine is never likely to be a realistic treatment option. In contrast, Traditional medicine is widely available and affordable, even in remote areas, and generally accessible to most people [Zhang, 2000].
Many countries have applied modern medical knowledge and methods on traditional medicine and revived it to suit the modern society. "The use of traditional medicine and medical plants in most developing countries, as a normative basis for the maintenance of good health, has been widely observed [UNESCO, 1996].

The practice of traditional medicine is widespread in China, India, Japan, Pakistan, Sri Lanka and Thailand. In China about 40 percent of the total medicinal consumption is attributed to traditional tribal medicines. In Japan, herbal medicinal preparations are more in demand than main streams pharmaceutical products. (Hoareau and Da Silva, 2001).

In Europe, some 1500 species of medicinal and aromatic plants are widely used on Albania, Bulgaria, Croatia, France, Germany, Hungary, Poland, Spain, Turkey, and the United Kingdom. The Maltese islands constitute an apt example where medicinal plants are widely used in everyday life as part of folk medicinal remedies (Lanfranco, 1992).
Country wise usage of plant-based medicine is shown in the table no. 2.1.

**Table No. 2.1**  
Country-wise usage of plant-based medicine

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>48</td>
</tr>
<tr>
<td>Belgium</td>
<td>40</td>
</tr>
<tr>
<td>Canada</td>
<td>50</td>
</tr>
<tr>
<td>USA</td>
<td>42</td>
</tr>
<tr>
<td>France</td>
<td>75</td>
</tr>
<tr>
<td>India</td>
<td>70</td>
</tr>
<tr>
<td>Africa</td>
<td>80</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>90</td>
</tr>
</tbody>
</table>

(Source: UNCTAD Expert Meeting Report, 2000)

b. Indian context

In India, the integration of traditional medicine into public health service system is advancing satisfactorily. In India 70% of the population uses Indian medicine, (Zhang, 2000) Ayurveda, Sidha, Unani and Yoga are now widely adopted through government policy and included in the curricula of several institution of learning including Universities, Colleges of medicine and secondary and primary schools, as well as in centers for the training of diverse type of health personnel. The Government of India has recently created a department of Indian System of Medicine (ISM) in the Ministry of Health to oversee policy and research in this area. India has over the years set up a National Institute of Homeopathy and Ayurveda. Similar institutions exist for Unani and Sidha tradition of medicine based on indigenous knowledge. There are colleges teaching ISM and training doctors all over
the country. The ISM tradition is stronger in south India where it is preferred option for many people (Sahai, 2002).

2.2. Tribal medicine

2.2.1. Introduction

The use of medicinal plants for the treatment of disease was known to the tribals many centuries ago. From time immemorial the people especially tribal people realized the curing and healing properties of the herbs and roots (Sharma, 1999). There are estimated to be around 25,000 effective plant based formulations used in folk medicine and known to rural communities all over India (Planning Commission, 2000). The tribes who live in isolation, practice their own system of medicine known as ethno medicine or tribal medicine. According to Hughes, ethno medicine is "the medical system of the primitive which have been evolved in their own cultural milieu and recognized as the methods of diagnosis and treatment which are natural or not. It includes all the body of beliefs, therapeutic practices including pharmacopoeias which they use for curing diseases, even if they attribute the cause of natural or supernatural forces" (Sills, 1968).
According to Shankar (1989), “it may surprise people to learn that throughout India, in most of her folk communities, there exist living traditions of health care. These are based on the use of locally available fauna, flora and minerals. They encompass important areas of the health care like mother and childcare, treatment of common ailments, home remedies, first aid and nutrition. They also deal with specialised areas like snake poisons, dental care, broken bones, veterinary care and treatment of chronic ailments. These traditions are of extremely decentralized nature. At one extreme is the house wife with knowledge of home remedies while on the other there are the folk practitioners who deal with special areas like the village mid-wives and traditional tribal practitioners”.

Soren (1997), elucidates that “tribal medical traditions exhibit an entirely autonomous character. They are community or culture specific with little overlapping between the medical practices of communities residing within the same region. They function today with thousands of traditional practitioners and have been functioning so far thousands of years. Traditional practitioners belonging to the same community interacts and shares their knowledge between themselves. However, there is very little or no information sharing between the practitioners of different communities”.

Different tribal communities utilize different plants or different parts of the same plants for particular ailments. This indicates a deep knowledge about these herbs and plant as well as combination and dose of such indigenous objects for cure of different diseases (Chaudhari, 1989). Various herbal medicines utilized by many tribes have
rich ingredients of medicinal value for effective birth control, treatment of skin diseases, ear and eye infection, cough and cold and other epidermal diseases (Pati, 1991).

For minor ailments, plants available in the surrounding areas are used while for more serious ailments, there are specialist in traditional medicines. Great faith is placed in these medicines often at the expense of "hospital medicines". (Anilkumar and Vedavalli, 1999).

2.2.2 Transfer of knowledge

Tribal medicinal knowledge is passed from generation to generation by means of word of mouth. According to Mashelkar (2002), folk traditions are handed over orally from generation to generation. The folk medicine is based on traditional beliefs, norms and practices based on centuries old experiences of trials and errors, success and failures at the household level. These are passed through oral traditions and may be called "peoples health cultures, home remedies or folk remedies". Johari and Karki (1999), opines that, "the custodians of herbal folklore are generally individuals or groups of families who have inherited their knowledge through oral traditions passed down generations. This knowledge which is often regarded as a family treasure, is not accessible even to the rest of the community to which the practitioner belongs and is therefore vulnerable to destruction and loss". According to Saraswati (1987), "the
tribal knowledge of different herbal preparation is based on observations and experiment. The empirical knowledge is transmitted by word of mouth”.

2.2.3 Importance of forest medicinal plants

Medicinal plants growing in forest ecosystem meet many of the health care needs and requirements of the Indian population. For example, of the 2000 drug items recorded in the Indian Materia Medica, 1800 are of plant origin - about 80% of the raw materials required in the manufacture of drugs are forest based (Lambert et al, 1997). A survey conducted by the All India co-ordinated Research project on Ethnobiology (AICRPE) recorded over 8000 species of wild plants used by the tribals and other traditional communities in India for treating various health problems (ISMH, 2001). According to the FRLHT report, the Indian system of medicine uses across the various systems, i.e., folk, sidha, unani, etc., around 8,000 species of plants. The maximum numbers of medicinal plants are utilized by the folk traditions, followed by Ayurveda, Sidha, Unani, Homeopathy, Tibetan and Modern respectively (Shankar et al, 2000). The usage of medicinal plants across medicinal system is given in the Table 2.2.1.
Among the medicinal plants used, one-third is trees and equal portions are shrubs and the remaining one-third herbs, grasses and climbers. A very small proportion of the medicinal plants are lower plants like lichen, ferns, algae etc. Majority of the medicinal plants are higher flowering plants [Planning Commission, 2000]. All these are shown in the Figure 2.2.

Table 2.2.1
Usage of medicinal plants across medicinal system

<table>
<thead>
<tr>
<th>Medicinal Systems</th>
<th>Ayurveda</th>
<th>Folk</th>
<th>Homeopathy</th>
<th>Modern</th>
<th>Sidha</th>
<th>Tibetan</th>
<th>Unani</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ayurveda</td>
<td>1769</td>
<td>731</td>
<td>164</td>
<td>55</td>
<td>743</td>
<td>271</td>
<td>653</td>
</tr>
<tr>
<td>Folk</td>
<td>731</td>
<td>4671</td>
<td>147</td>
<td>56</td>
<td>635</td>
<td>201</td>
<td>486</td>
</tr>
<tr>
<td>Homeopathy</td>
<td>164</td>
<td>147</td>
<td>482</td>
<td>60</td>
<td>142</td>
<td>70</td>
<td>155</td>
</tr>
<tr>
<td>Modern</td>
<td>55</td>
<td>56</td>
<td>60</td>
<td>105</td>
<td>41</td>
<td>17</td>
<td>50</td>
</tr>
<tr>
<td>Sidha</td>
<td>743</td>
<td>635</td>
<td>142</td>
<td>41</td>
<td>1121</td>
<td>227</td>
<td>486</td>
</tr>
<tr>
<td>Tibetan</td>
<td>271</td>
<td>201</td>
<td>70</td>
<td>17</td>
<td>227</td>
<td>279</td>
<td>224</td>
</tr>
<tr>
<td>Unani</td>
<td>653</td>
<td>486</td>
<td>155</td>
<td>50</td>
<td>486</td>
<td>224</td>
<td>751</td>
</tr>
</tbody>
</table>

(Source: FRLHT Report, 1998)
Herbal medicine have been defined by several WHO guidelines that they include crude plant materials, such as leaves, flowers, fruit, seed, stem, wood, bark, roots, rhizomes or other plant parts, which may be entire, fragmented or powdered. (Zhang 2000).

Medicinal plants can act as a harbinger of large foreign revenues. The global herbal market and industry have been growing rapidly in recent years. Today, medicinal plants enjoy great potential for export. It must be noted that the vast majority of plant resources originate from developing countries. International market of medicinal plants is over US $60 billion per year, which is growing at the rate of 7 percent. India at present exports herbal material and medicines to the tune of Rupees 6446.3 crores only, which can be raised by Rs. 3000 crores by 2005. China and India are two great producers of medicinal plants having more than 40 percent of
global biodiversity. China besides meeting its domestic requirements is earning US $ 5 billion per year from herbal trade (Planning Commission, 2000).

India especially Kerala has a rich biodiversity. But foreign nations have already grabbed the patent right of many of our medicinal plants. The right of 'chakarakolly' – a traditional medicine of the 'Kani' tribals in Thiruvananthapuram districts of Kerala, was grabbed by Dai Nippon Sugar Company of Tokyo. This patent was denied after it underwent successful tests of trials at the Council of Scientific and Industrial Research (CSIR) and Sri Chithra Thirunal Institute of Medical Science and Technology (SCTIMST), Thiruvananthapuram. Adequate legal measure has to be taken to protect such bio-diversity piracies and related problems, which might arise in future.