

Chapter 5: Idea of Health and medicine in India

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Ancient India

If we look back in time, things were quite different in India. Though very little information is available about the health status and the health system in ancient India, the wealth of information coming from the archaeological explorations in the Indus valley reveal very interesting facets.

A sophisticated and technologically advanced urban culture is evident in the Indus Valley Civilisation. The quality of municipal town planning suggests the knowledge of urban planning and efficient municipal governments which placed a high priority on hygiene.¹

The urban plan included the world's first known urban sanitation systems. Within the city, individual homes or groups of homes obtained water from wells. Waste water was directed to covered drains, which lined the major streets.

The most unique aspect of planning during the Indus Valley civilisation was the system of underground drainage. The main sewer, 1.5 m deep and 91 cm across, connected to many north-south and east-west sewers. It was made from bricks smoothed and joined together seamlessly. The expert masonry kept the sewer watertight. Drops at regular intervals acted like an automatic cleaning device. A wooden screen at the end of the drains held back solid wastes. Liquids entered a cess poll made of radial bricks. Tunnels carried the waste liquids to the main channel connecting the dockyard with the river estuary. Commoner houses had baths and drains that emptied into underground soakage jars.²

The ancient Indus systems of sewerage and drainage that were developed and used in cities throughout the Indus region were far more advanced than any found in contemporary urban sites in the Middle East and even more efficient than those in many areas of India today.

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The Science Of Ayurveda

Ayurveda means the "science of life". It is a holistic healing science that is comprise of two words ayu means life and veda means text of knowledge. Life (ayu) is the combination (samyoga) of body, senses, mind and reincarnating soul. Ayurveda is the most sacred science of life, beneficial to humans both in this world and the world beyond.

- Charaka Samhita, Sutrasthana, 1.42-43.

Ayurveda is a holistic way of life rather than just a medical science. It reveals the intimate relationship between the mind and body, humans and the cosmos. Ayurveda basically evolved not as a medical system but as a way of life that would enable man to reach the state of Brahman or Moksha or salvation, which is the highest and the last state of the four Purusharthas, the other three being Dharma, Artha and Kaama.³

To attain this highest state of Brahman, man needed a healthy body and mind, which would help him, attain that state. After all, mind and body are but instruments to attain Moksha. To keep his body and mind healthy, he lived the Ayurvedic way – a holistic approach for a happy, healthy and peaceful life. He followed the diet, regimen and routine accordingly thereby attaining Moksha through Ayurveda.

All the Ayurvedic texts quote the attainment of the Purusharthas especially of Moksha as the sole aim of Ayurveda.

The word Purusha in Sanskrit has many meanings like mankind, male, soul, creator, etc. In this context, it has to be taken as the creator or Brahman or the supreme spirit. Artha in Sanskrit means for the sake of wealth, etc. Therefore, the word Purushartha means "attainment of the state of Purusha". The four Purusharthaas are Dharma, Artha, Kaama and Moksha.

Purushartha Kama was developed to make begetting a progeny a duty coupled with sensual enjoyments, Ayurveda helped him by describing various postures of sexual act, foods that increase sperm and ova both in quality and quantity and regimen that would bring about a healthy sex life.

Next is the last of the Purusharthas, Moksha. In essence, Ayurveda helps man to achieve his ultimate aim of attaining Moksha and hence can be called a Spiritual Science as well.

The true history of Ayurveda starts from the time of the Holy books, the Vedas. Ancient mythology contends that the concept and essence of Ayurveda was revealed by the creator of the world himself – Lord Brahma.⁴

There are four Vedas. They are:

- Rigveda
- Yajurveda
- Samaveda
- Atharvaveda

The Vedas date back to about five thousand years. They preach the philosophy of life. The Atharvaveda contains the principles of healing on which Ayurveda is based. "Ayur" means "life" in Sanskrit. Ayurveda is the most ancient science of healing which enhances longevity. It has influenced many of the older traditional methods of healing including Tibetan, Chinese and Greek medicine. Hence, Ayurveda is considered by many as the "mother of healing".

The hymns, the mantras and the medical information contained in the Vedas were contributions of Rishis and munis or sages, over a period of time. Many of these sages were learned saints who devoted their life to understanding the world.

Ayurveda, the science of life, prevention and longevity is the oldest and most holistic medical system available on the planet today. It was placed in written form over 5,000 years ago in India, it was said to be a world medicine dealing with both body and the spirit.

Before the advent of writing, the ancient wisdom of this healing system was a part of the spiritual tradition of the Sanatana Dharma (Universal Religion), or Vedic Religion. Veda Vyasa, the famous sage, shaktavesha avatar of Vishnu, put into writing the complete knowledge of Ayurveda, along with the more directly spiritual insights of self realisation into a body of scriptural literature called the Vedas and the Vedic literatures.⁵

It was between 1200 and 700 BC, that the four sacred Vedas were composed. References to diseases, herbs and herbal cures can be seen in all the four Vedas especially in the Rig Veda.

The Atharva Veda has many hymns eulogising herbs. Many plants were worshipped as deities and invoked by incantations. There were also many Mantras (invocations) to combat jaundice, consumption and hereditary diseases among others. The Atharvan hymns chanted for the cure of diseases were known as Bhaishajyams and those for attaining longevity and prosperity were called Ayushyams. These hymns, especially the Ayushyams are considered to be the foundation for advances in later medicine.⁶

The Atharva Veda lists the eight divisions of Ayurveda:

- Internal Medicine
- Surgery
- Ophthalmology and Oto-rhino-laryngology
- Toxicology
- Psychiatry
- Pediatrics
- Gerontology or Science of Rejuvenation
- The Science of Fertility

The Vedic Sages took the passages from the Vedic Scriptures relating to Ayurveda and compiled separate books dealing only with Ayurveda. One of these books, called the Atreya Samhita is the oldest medical book in the world! The Vedic Brahmanas were not only priests performing religious rites and ceremonies; they also became Vaidyas (physicians of Ayurveda). The sage-physician-surgeons of the time were the same sages or seers, deeply devoted holy people, who saw health as an integral part of spiritual life. It is said that they received their training of Ayurveda through direct cognition during meditation. In other words, the knowledge of the use of various methods of healing, prevention, longevity and surgery came through Divine revelation; there was no guessing or testing and harming animals. These revelations were transcribed from the oral tradition into book form, interspersed with the other aspects of life and spirituality. What is fascinating is Ayurveda's use of herbs, foods, aromas, gems, colours, yoga, mantras, lifestyle and surgery. Consequently Ayurveda grew into a respected and widely used system of healing in India.

There were two main schools of Ayurveda at that time. Atreya – the school of physicians, and Dhanvantari – the school of surgeons. These two schools made Ayurveda a more scientifically verifiable and classifiable medical system.

People from numerous countries came to Indian Ayurvedic schools to learn about this world medicine and the religious scriptures it sprang from. Learned men from China, Tibet, the Greeks, Romans, Egyptians, Afghans, Persians, and more travelled to learn the complete wisdom and bring it back to their own countries. Ayurvedic texts were translated in Arabic and under physicians such as Avicenna and Razi Sempion, both of whom quoted Indian Ayurvedic texts, established Islamic medicine. This style became popular in Europe, and helped to form the foundation of the European tradition in medicine.

In 16th Century Europe, Paracelsus, who is known as the father of modern Western medicine, practiced and propagated a system of medicine which borrowed heavily from Ayurveda.

There are two main re-organisers of Ayurveda whose works are still existing in tact today – Charak and Sushrut. The third major treatise is called the Ashtanga Hridaya, which is a concise version of the works of Charak and Sushrut. Thus the three main Ayurvedic texts that are still used today are the Charak Samhita (compilation of the oldest book Atreya Samhita), Sushrut Samhita and the Ashtangha Hridaya Samhita. These books are believed to be over 1,200 years old. It is because these texts still contain the original and complete knowledge of this Ayurvedic world medicine, that Ayurveda is known today as the only complete medical system still in existence.

The practitioners of Vedic medicine were the bishaj (literally Healers), who practiced rather mundane functions such as bone-setting and remedy preparation in combination with complex and often elaborate healing rituals. Although the role of the bishaj is mentioned in the Rig Veda, it is clear, at least in later centuries, that the physician was held in contempt by his priestly counterpart, for no other reason except the nature of his profession. The bishaj would consort with all people from all castes, unlike the Brahmin-priests who could be “contaminated” by associating with the lesser castes. Thus, these early physicians of the Vedic period in India appear to have existed outside the mainstream, and many of them would travel from place to place, sometimes outside the Aryan cultural milieu, earning their livelihood by attending the sick and collecting their remedies from the wild. Their contact with non-Aryan culture, as well as the exchange of medical information between wandering practitioners that met each other on the road, probably initiated an empirical approach to healing, further alienating them from the orthodox magico-religious orientation of the Brahmins. In later centuries however, the body of medical practices established by the bishaj would later become part of the brahmanic tradition, and the heterodox origin of ancient Indian medicine would be erased in favour of an orthodox perspective. Despite this expropriation by the orthodoxy, the penultimate text of Ayurvedic medicine, the Charaka samhita, reveals its true origin in its title: the word charaka is a masculine noun of the root word “char,” which means, “to wander”⁷

Buddhist Medicine

As liberation from suffering is a central tenet of Buddhism, there was commensurate emphasis upon health and wellness early on in its development, with compassion directed towards the sick and injured. Built into the rules of conduct for Buddhist initiates (called the Vinaya Pitaka) was a provision for health care. The texts describe the life and career of a lay-physician named Jivaka.

The most famous account of Jivaka's life occurs early in his life, as he was studying medicine at the University of Takshashila. The following account is an elaboration from the Vinaya pitaka, and has since become a story that has inspired countless Ayurvedic physicians:

As a part of their final examinations, the teacher had asked his students to find one thing that could not be used as a medicine. As the students made their way back from their search, each one of them had found something that had no use as a medicine. After waiting an exceptionally long time, Jivaka returned to his teacher, crestfallen and empty handed. He had found no substance, which in some way, could not be used as a medicine. To his surprise, the teacher congratulated Jivaka and gave him his blessing as a healer. The rest of the students, on the other hand, were berated: only Jivaka had truly understood the heart of Ayurveda.

Medieval Period

As Hinduism began to reassert itself on the subcontinent, the ancient body of healing knowledge gradually became systematised into what is modern day Ayurveda. By the 14th century AD, several important texts and commentaries had been added, including the Sharangadhara samhita. This text is primarily a text on pharmacy, discussing various procedures for preparing, storing, and dosing herbal remedies, including the preparation of base metals and mercury into relatively benign but efficacious therapeutic agents. It is one of the most important formularies in Ayurvedic medicine, relied upon to this day. Another important text, composed much earlier, is the Madhava nidanam. It was authored by about 700 AD, and is completely devoted to the classification and description of various diseases. Along with another formulary, the Bhavaprakasha (c. 16th century), the Sharangadhara samhita and Madhava nidanam form the lesser triad of the extant works of Ayurveda.

When the British assumed control over India in the mid 19th century, they spent a great deal of time and effort trying to "reform" its populace, another word for eradicating the

subcontinent of its "primitive" and "un-Christian" practices. Thus, the practice of Ayurveda was systematically undermined by the British, and at one time to practice of Ayurveda was punishable by death. Nonetheless, Ayurveda continued to exist, but deprived of state funding its importance was relegated to the status of folklore, and many of its advanced techniques, such as the surgical techniques described in the Sushruta samhita, were lost. Instead, Western medicine became dominant in India, with the educated elite of the pre and post-British India actively encouraging its populace to discard its time-honoured traditions.

Health During The Colonial Period

Mark Harrison's well-argued essay charts the changing British attitudes towards indigenous medicine and problematises the concept of a static, unchanging Orientalist ideology that is sometimes associated with the ideologies of the British Raj.⁸ From a relationship characterised by give and take between the Indian systems of medicine and Western medicine in the early 17th century, the British colonisers began to assume a sense of ideological and medical superiority in the aftermath of new path-breaking discoveries made by science in the West. Harrison discusses the Orientalist attempts to learn from the ancient medical lore of the East during the late 18th and early 19th centuries and the disregard for Indian medicine during the latter half of the 19th century when a close relationship developed between imperial power and Western medicine. Harrison does not abandon the narrative here but ends by referring to the crisis of confidence that Western medicine experienced in the 20th century that resulted in a search for "alternative" medicine, and a move to rediscover the "holism" of Indian medicine.

Post-Independence Scenario

The paradox that a heavily interventionist state has never, since independence, made health a priority in public policy or in the allocation of public resources. The Indian state's conception of development has allowed little space for the importance of health and wellbeing. Conversely, the political economy of health care in India has been characterised by widespread privatisation, and the large, perhaps dominant, role of the private and informal sector in providing healthcare, even to the very poor.

A history of under-investment and poor health infrastructure in the colonial period continued to shape the conditions of possibility for health policy in India after independence.⁹

India has come out with the National Policy on Indian Systems of Medicine and Homoeopathy (ISM and H) only in 2002, i.e. 55 years after independence.¹⁰ It acknowledges that India possesses an unmatched heritage represented by its ancient systems of medicine which are a treasure house of knowledge for both preventive and curative healthcare. The positive features of the Indian Systems of Medicine, namely, their diversity and flexibility, accessibility, affordability, a broad acceptance by a section of the general public, comparatively low cost, a low level of technological input and growing economic value have great potentials to make them providers of health care that the larger sections of our people need.

Efforts would be made to integrate and mainstream ISM and H in health care delivery systems including National Health Programmes.

The Way Ahead

Traditional and folklore medicine bequeathed from generation to generation is rich in domestic recipes and communal practice. Encompassing concepts and methods for the protection and restoration of health, traditional medicine has served as a fount of alternative medicine, new pharmaceuticals, and healthcare products.¹¹

This folk knowledge has in turn been retained, nurtured and built upon by an extended line of unknown and unremembered traditional healers who have passed it on from generation to generation. This line exists even today, more commonly in relatively remote communities.

The folk medicine thus represents a system that, on the one hand, functions as an extensive network for people-based incremental generation of knowledge about plant utilisation, and on the other hand, functions as a low-cost community-based health care system. The future existence of this living knowledge system is however seriously threatened by the existing societal forces of change.

The women of India have also played a huge part in helping to keep many of the Ayurvedic principles alive for thousands of years. Many of the religious rituals and ceremonies actually

contain Ayurvedic lifestyle and health advice such as what to eat in which season; what herbs and plants to offer the different Gods and deities at different times of the year and how praying and meditation can calm the mind. The mothers have passed on to their daughters what spices to use in cooking, what spices and herbs are good for treating minor illnesses and the importance of giving daily massage to their babies and children. These traditions and ceremonies were designed by the wise men many centuries ago as a way of conveying and instilling Ayurvedic lifestyle advice to the population as a whole, it became an integral part of the way of life.¹²

Traditional healing practices are called primitive, mystical and esoteric because our education does not prepare us to comprehend their sophistication. Most of these traditional practices are deeply entrenched in folk wisdom and sound theories of mind. These practices provide practical solutions to personal, familial and social problems, and have been integrated in the communal life. Despite their popular mass base, there is not enough work to test the premises of traditional practices on the scientific crucible. There is a crying need to decipher this folk wisdom and traditional knowledge, and examine its import to augment therapeutic services. We need to develop methodologies and mindset to learn from this rich heritage.¹³

The characteristic features of traditional healing practices include:

- Sacred therapies
- Holistic approach
- Healers as diviners
- Socio-centric treatment
- Cultural compatibility

Parallel systems of health care existed in India for ages. Traditional health care practices are of two types. The first can be loosely categorised as faith and folk practitioners, which comprises shamans, mystics, tantriks, faith healers, priests, ojhas, yogis, gurus, babas and others. Though these healing practices are consistent with the cultural beliefs and have popular mass support, these are seen with scepticism by most of the government agencies.

The second category which is often labelled as traditional medicine and recognised by the government as alternative systems are the practitioners of Ayurveda, Yunani system and

homeopathy. Of course there are many others, such as herbal practitioners, naturopaths, acupuncturists, etc, who are frequented by patients and their families.¹⁴

Current Health Situation In India

India paints a poor picture when it comes to the health of its citizens. In the words of the renowned journalist P. Sainath, "Few nations have addressed the health needs of their peoples with such callousness and contempt". The latest estimates for the vital statistics in India reveal Crude Birth Rate (CBR) of 22.5, Crude Death Rate (CDR) of 7.3 and Infant Mortality Rate (IMR) of 50.¹⁵ There are considerable disparities across India. For example, the IMR in Kerala is four times less than India and five times less than Uttar Pradesh.

Communicable diseases continue to pose a problem in India. Almost 1.5 million cases of Malaria have been reported over the past five years. The number of Dengue Fever cases has doubled from 12,317 in 2006 to 27,247 in 2009. More than 10 million cases of Diarrhoea, 1 million cases of Typhoid Fever and almost 2.5 million cases of Acute Respiratory Infections were reported in 2010. India continues to harbour the largest number of Tuberculosis patients in the world.¹⁶

Of concern is the fact that India is bearing a double burden of disease, with significant increase in the incidence of non-communicable diseases (NCDs). India is called the Diabetic Capital because it is ranked first among the top ten countries and is very likely to maintain the same status until 2030. The number of diabetics in India is projected to rise from 31.7 million in 2000 to 79.4 million by 2030.¹⁷ Hypertension prevalence of about 16% was observed in India.¹⁸ Over 13 million people are estimated to be suffering from it out of which 62% are estimated to be males.¹⁹

When it comes to the nutritional status of its citizens, India is faced with a paradoxical situation of persistent under-nutrition as well as the increasing problem of obesity. Low Body Mass Index (BMI) levels were observed in 35.6% of women and 34.2% of men. On the other hand, 12.6% of women and 9.3% of men were either overweight or obese. Further, it has been estimated that 69.5% of Children age 6-59 months were anaemic, while 55.3% of ever-married women age 15-49 were anaemic.²⁰

The statistics show that India has about 380,000 practitioners of traditional medicines (1 per 2,200 population). Besides, there are large number of folk health practitioners, ranging from fait healers to hydro-therapists. If 400,000 medical practitioners are added to this figure, India has one of the best patient-practitioner-ratio in the world. India's policies on indigenous medicine could go a long way in meeting the health needs of the masses.

These enormous resources have not been systematically utilised by the health planners so far. The most unfortunate part is that due to official neglect and dominance of modern medicine, traditional practices are in shambles. The worst victims of this official apathy are those rural poor who otherwise have no access to modern medicine.

The way ahead could be focusing on the following aspects:

- Retaining the traditional systems in a living form
This should lead to support for the retention, recording, validating, prospecting and practice of traditional herbal knowledge systems by traditional healers as well as other lay-persons.
- Promoting availability of diverse herbs
This should translate into programmes for conservation, cultivation, and plantation.
- Integrating the use of herbs in community health programmes
Traditional and indigenous medicinal treatments should form a part of the community living through integration as home-remedies, diet additives, primary cures dispensed by traditional healers and treatment centres for specific ailments.
- Processing and marketing with benefit to communities
A state-of-the-art processing technology implemented through a network of people-owned collection, cultivation and processing units for production of herbal medicines / extracts.

Recently, the National Knowledge Commission's Chairman, Mr Sam Pitroda, remarked that there is a need to adopt the traditional Indian model in the healthcare system, for a comprehensive solution to shortcomings in reaching the poor.²¹

Mr Pitroda proposed a 10-point agenda to reach out to the "bottom of the pyramid", and defended the need for adopting the traditional healthcare system for the masses, saying the Western method of healthcare reaches only the "top of the pyramid".

While stressing the need to form healthcare communication and healthcare education, and research facilities related to health, Mr Pitroda said the key is to lay out a plan to implement the target.

He also called for setting up working groups at state levels, particularly at district levels, to ensure wider reach of healthcare facilities.

"If we do not have a plan ready for the state and district levels, we can expect little success in this regard," he maintained.

The Department of AYUSH, Government of India is taking efforts in this regard. Besides, the National Rural Health Mission (NRHM) too specifically mentions mainstreaming of AYUSH and revitalising local health traditions. The NRHM strategies include provision of AYUSH medications in the drug kit maintained by the ASHA as well as at the sub centre, PHC and CHC levels.²²

The Department of AYUSH has involved voluntary agencies in its scheme for revitalising the local health traditions.²³ However, these efforts have to be sustained for any meaningful impact.

¹ http://en.wikipedia.org/wiki/Indus_Valley_Civilization

² <http://www.harappa.com/lothal/14.html>

³ http://www.hindupedia.com/en/History_of_Ayurveda

⁴ <http://www.medindia.net/ayurveda/index.asp>

⁵ <http://www.floridavediccollege.edu/ayurveda/history.htm>

⁶ <http://www.ashtangayurveda.com/pages/History-of-Ayurveda.asp>

⁷ <http://www.toddcaldecott.com/index.php/knowledge/ayurveda/92-history-of-ayurveda>

⁸ Health, Medicine and Empire: Perspectives on Colonial India. Edited by Biswamoy Pati and Mark Harrison; Orient Longman Ltd, New Delhi, 2001

⁹ Health in India since Independence. Sunil S. Amrith. February 2009. BWPI Working Paper 79. Brooks World Poverty Institute, Manchester

¹⁰ National Policy on Indian Systems of Medicine & Homoeopathy-2002

¹¹ Herbotechnik. A BAIF Program for the understanding, conservation, cultivation, and utilization of medicinal herbs. An Approach Note. Dr. Anil Saraf and Mr. Girish Sohani

¹² Kulkarni PH. The history of Ayurveda

¹³ Dalal AK. Folk wisdom and traditional healing practices: Some lessons for modern psychotherapies. In Foundations of Indian Psychology, edited by M. Cornelisson, G. Misra & S. Verma, Publisher: Pearson, New Delhi

¹⁴ Dalal AK. Integrating Traditional Services within Primary Health Care. Journal of Health Management, 7(2), 249-262. 2005

¹⁵ Sample Registration Bulletin 2011. Registrar General of India, New Delhi

¹⁶ National Health Profile 2010. Central Bureau of Health Intelligence, New Delhi

¹⁷ <http://www.who.int/diabetes/actionnow/en/mapdiabprev.pdf>

¹⁸ <http://www.whoindia.org/SCN/AssBOD/08-Hypertension.pdf>

¹⁹ Jindal SK, Gupta D and Aggarwal AN. Guidelines for Management of Chronic Obstructive Pulmonary Disease (COPD) in India: A Guide for Physicians (2003). Indian J Chest Dis Allied Sci 2004; 46: 137-153

²⁰ National Family Health Survey-III (2005-06), MOHFW / GOI

²¹ <http://www.thehindubusinessline.com/todays-paper/tp-economy/article1068706.ece>

²² National Rural Health Mission (2005-2012) Mission Document, 2005

²³ <http://www.indianmedicine.nic.in/writereaddata/linkimages/6158672431-Revitalization%20of%20Local%20Health%20Traditions,%20Midwifery%20Practices%20Etc.pdf>