



THE HISTORY OF INDIAN MEDICINE: A REVIEW

Ayurveda

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ABSTRACT

Since the bulk of pharmaceuticals used in modern medicine are sourced from natural sources, products gained from natural sources serve as the basis for both ancient and modern medical practises. The level of success that natural products have in today's culture cannot be overstated. The finding of artefacts from India's historic medical practises has been connected to the civilization that thrived in the Indus valley. The most well-known example of India's lengthy history of complementary medical practises is Ayurveda, and the nation has a long medical history. Indian Traditional Medicine (ITM), the foundation of long-standing medical practise throughout the world, has played a crucial role in the provision of healthcare and the advancement of human welfare since its inception. The goal of this essay is to attempt to clarify the significance of Indian traditional medical services based on more recent systematic studies. The current review will be helpful to researchers looking into traditional medicine so they can expand their research on Indian Traditional Medicine in the near future and learn more about phytochemicals.

KEYWORDS

Traditional Indian medicine, Indian Medicine, Ayurveda, Natural Products

INTRODUCTION

Natural products (NPs) are massive, diverse secondary metabolites with a wide variety of biological functions. The numerous uses of natural products, particularly in human and veterinary medicine as well as agriculture [1], have served as examples of these activities. Sources of nanoparticles include microorganisms, marine life, and plants (NPs). The byproducts of secondary metabolism are the NPs that come from plants. These are the chemicals that, while not required for life in a lab setting, are undeniably responsible for the coordination of defensive mechanisms in normal environmental conditions. Macromolecules like DNA, RNA, and protein are not included in the concept of NPs, nor are the natural precursors or important intermediates of these macromolecules.

The discovery of NP, which in turn played a crucial role after the discovery of penicillin more than 85 years ago, has increased the significance of NP in the pharmaceutical, insecticidal, and herbicidal industries. Since then, several NPs have been isolated and thoroughly examined. The variety of phytochemicals and the challenges involved in finding their optimum expression in the treatment and management of diseases are what have sparked the interest of NP scientists the most. However, humanity has always relied on mother nature for the use of herbal and phytonutrient treatments to combat a variety of ailments that are spreading over the globe. Around 6 billion people, or 80-85% of the world's population, rely on herbal medicine to treat a variety of illnesses [22].

Plants have a special significance in traditional medicine, which dates back to around 2600 BCE and documented 1000 plant-based products in Mesopotamia. Egyptian pharmaceutical, which is believed to have been developed around 2900 BCE, asserts that the ancient practise was conventional medicine. These products, which use extracted oils of *Cupressus arizonica* Greene, *Commiphora acuminata* Mattick, *Cedrus libani* A. Rich., *Glycyrrhiza glabra* L., and *Papaver somniferum* L., are still used for the treatment of illnesses. The "Ebers Papyrus" was found in Egypt even though it is the most well-known record from 1500 BCE and contains more than 700 remedies, many of which were derived from plant sources [2]. The first record of traditional Chinese medicine dates back about 2,000 years (1100 BCE; Wu Shi Er Bing Fang; contains 52 remedies), followed by the herbal Shennong (100 BCE; 365 medicines), and the herbal Tang (containing 52 medicines) throughout the course of several millennia [8]. (659 CE; 850 medicines).

The Charaka and Sushruta Samhitas include 341 and 395 herbal remedies, respectively, dating back to 1000 BCE, which means that the records of ancient Indian medicine predate 5000 years [3]. Dioscorides, a Greek physician who practised in the "known world" about the year 100 CE, recorded the acquisition, preservation, and suitable application of traditional medicine in that region. However, the methodical advancement of the use of conventional medicine in the prehistoric West was also significantly aided by the work of the Romans and the Greeks. Half of the top 50 pharmaceuticals available in European pharmacies are covered by NPs, which are sold as herbal

and/or dietary supplements for prescriptions. Both the United States and Europe stock these supplements. Additionally, the current pharmacopoeia contains at least 25% of its drugs, which are either derivatives of NPs or the products of numerous plants and synthetic analogues manufactured in accordance with the archetype [19]. The World Health Organization (WHO) defines traditional medicine as "the entire body of knowledge, abilities, and practises based on the hypotheses, convictions, and experiences of indigenous to different cultures, whether logical or not, utilises as a part of the support of health-care service and in addition in the prevention, identification, improvement, or treatment of physical and psychological instability". Ethnomedicine is another name for conventional medicine [21]. Among the many traditional medical systems still in use today, traditional Indian medicine has the longest history. Another ancient medical system that is still in use today is traditional Chinese medicine. The traditional Indian medicine with the longest history and most robust philosophical underpinnings is ayurveda.

Traditional medicine has a long history in India, with records of health care going all the way back to 5000 BCE. Ancient literature from that time period, including the "Rigveda" (1700–1100 BCE), "Yajurveda" (1400–1000 BCE), and "Atharva Veda," recorded health-care requirements and diseases (1200 BCE). Later, in the "Charaka Samhita" (990 BCE), "Sushruta Samhita" (660 BCE), and "Dhanwantari Nighantu" manuscripts, the use of plants and multi-herbal compositions was emphasised and widely practised (1800 CE). The medical record from ancient India is further explained below in figure form [11].

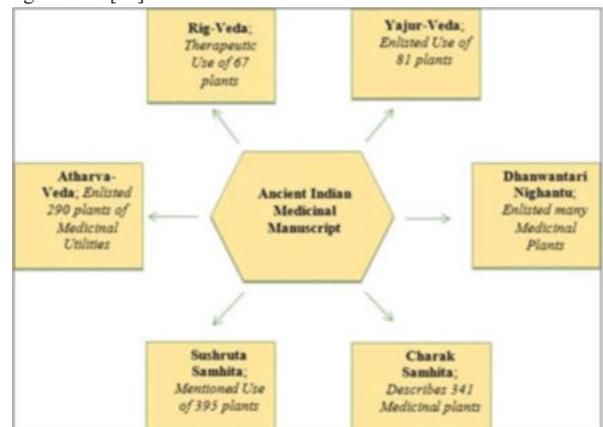


Figure: Enlisted Plants Of The Ancient Indian Medicinal Manuscript

The practise of medicines that are either believed to have originated in India or that were imported to India from other countries and became embedded in Indian culture is referred to as traditional medicine in India. The figure below serves as an example of this practise. India has the remarkable distinction of being the only country whose traditional medicine is accepted globally. Ayurveda, Siddha, Unani, Yoga,

Naturopathy, and homoeopathy are a few of these. Despite not being introduced to India until the 18th century, homoeopathy was immediately accepted as part of the local culture and, like other ancient medical practises, developed over time to become more successful. It was consequently integrated into Indian traditional medicine [11].

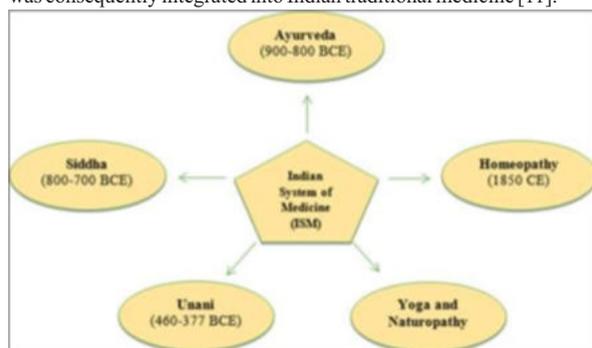


Figure: Recognized Systems Of Indian Medicinal Practice

Ayurveda

Ayurveda literally translates to "The Science of Life" since it is a combination of the Sanskrit words "ayur," which means "life," and "veda," which means "science or knowledge" [18]. The Rigveda and Atharva Veda, which contain advice on how to live in harmony with one's surroundings, are the earliest known sources from which Ayurveda sprang. Ayurveda's ideas and practises were idealized in India between 2500 and 500 BCE, despite the fact that its beginnings are lost in an antiquated artefact. A common Ayurvedic practise among Indians has been the use of natural resources to further Ayurvedic theory and practise through free experimentation and real-world experiences. The foundational principle of ayurvedic medicine is made up of two main elements. These serve as reminders of the illness's cause and serve to increase the patient's understanding of it. The basis of ayurvedic medicine's mission statement is the notion that "Ayurveda deals with joyous and painful existence." In addition to evaluating life expectancy and quality of life, it also describes what is and is not appropriate in terms of living [20]. It is a system of healthcare based on the idea that the human body is a network made up of seven fundamental tissues (referred to as "Rasa," "Rakta," "Mansa," "Meda," "Asthi," "Majja," and "Shukra") and the waste products of the body, including excretion, urine, and sweat, which are produced by the five fundamental elements of fire, water, air, ether, and earth, as well as three dynamic energies (Tridosha). Any irregularity or unsettling influence on these fundamental organismal norms results in disease [12]. Treatment in Ayurveda focuses on the patient as a whole, not simply their condition. This type of drug administration emphasizes how unique each person is in terms of their social class, bio-personality, biosynthetic makeup, and physiological circumstances, any of which could be the root of a certain sickness. Furthermore, this makes it simpler to conduct research using the contemporary logical methodologies that are employed to solve a number of issues pertaining to human services. The majority of ayurvedic remedies are complicated mixtures of several herbs, metals, minerals, and items made from plants or animals. However, historical documents and modern publications like the Ayurvedic Pharmacopoeia show that NPs predominate over other derived substances [15].

Siddha

Practitioners of the Siddha medical system have existed since the dawn of human civilization in India, between 10,000 and 4000 BCE. Similar to Ayurveda, it was developed through everyday knowledge of how to employ natural resources to maintain good health. It is still the oldest form of medicine used in South India. Saiva is one of the six main schools of thought that make up the Hindu religion and serves as the foundation for medical practise. The term "Siddha" can be translated as "holy harmony," "achieving excellence," or "recognized fact," and the "Siddhars" were mythical beings that developed their mental faculties by regularly engaging in this type of practise. Siddha is an acronym for "knowing reality," "attaining perfection," and "holy harmony." The Siddha medical system is thought to have been founded by 18 separate people known as "Siddhars." Thirumoolar, Ahappe, Agathiyar, Sunthara Ananthar, Bogar, Machchamuni, Konganar, Korakkar, Therayar, Karuvoorar, Nandi Devar, Idaikkadar, Iraamathavar, Sattamuni, Kuthampai, and Paamp are some of these people. The philosophical notions that "food is medicine, medicine is food" and

"sound mind makes a sound body" are the foundation of this medical practise [16]. According to the practitioners of this medical practise, attaining a condition of unending joy depends on sustaining human wellbeing. The human body is considered in the Siddha medical system as an aggregation of seven fundamental elements, three humors, and the waste products. This system's idea and guiding principles are quite similar to those of Ayurveda. A balanced sense of humor is a sign of good health, but an unbalanced sense of humor can cause illness or disease. Four groups can be made up of the 96 main parts that make up a human being: the physical, the physiological, the moral, and the intellectual. Alteration causes 96 principles to operate incorrectly, which finally leads to the appearance of disease [17].

Unani

Greeks laid the foundation for Unani medicine, which was later developed by Arabs into a sophisticated medical profession. Hippocrates (Buqrat), also known as Hippocrates (460-377 BCE), and Galen laid the intellectual and medical foundation for the Unani school of medicine (Jalinoos). It is known as Greco-Arab medicine, and Greek and Arab thinkers like Galen (131-212 CE), Raazes (850-925 CE), and Avicenna made substantial improvements to it (980-1037 CE). The four circumstances of life—hot, wet, cold, and dry—as well as the four humours of the Hippocratic hypothesis—blood, yellow bile, dark bile, and mucus—serve as the cornerstones of unani medicine. The Unani medical system, which was introduced to Indian culture by the Mughal rulers and has now been assimilated into Indian society, is used by a sizeable section of the population of India. The seven elements that make up the human body, according to Unani, are Mizaj, which is translated as "temperaments," Anza, which is translated as "organs," Quo, which is translated as "resources," Arkan, which is translated as "components," Arawh, which is translated as "spirits," Aklath, which is translated as "humours," and Afal. These rules regulate both the condition of health and the level of prosperity [10].

Yoga and naturopathy

The language that was used to communicate and write about yoga, which was created in India, is Sanskrit. The three main faiths of India—Hinduism, Jainism, and Buddhism—all employ Sanskrit extensively in their religious rites and associated ceremonial contexts. Although there are several ways to interpret the term "yoga," the most typical one is that it alludes to the condition of togetherness. Yoga explores both preventative and remedial coping techniques, helping people develop their mindfulness. Although cognitive behaviour therapy serves as the foundation for dialectical behaviour therapy, care-based subjective treatment, a unique form of mindfulness, is used in cognitive therapy practices [6][5].

Naturopathy is a branch of complementary and alternative medicine that strikes a good mix between time-tested medical procedures and cutting-edge research. The fascinating set of guidelines that govern naturopathy practise emphasize disease prevention, accept the body's natural capacity for healing, and empower individuals to take full responsibility for their health and welfare. The underlying assumption of naturopathy is that disease is seen as a process that interrupts health and then results in recovery in terms of natural healing processes [7].

Homeopathy

Hippocrates, a Greek physician who practised medicine in the period around 450 BCE, is regarded with being the first to propose homoeopathy as a valid therapeutic approach. The German physician Samuel Hahnemann is credited for increasing the popularity of homoeopathy in modern times (1755CE-1843CE). The Greek terms "homois," which means "similar," and "pathos," which means "suffering," are where the word "homoeopathy" comes from. These words combine to make the word "homoeopathy" in modern English. Homeopathy is a type of complementary medicine that cures patients by giving them quantities of substances in combinations that, when given to healthy persons, have effects that are similar to the disease's symptoms in the particular patient [4]. The theory behind the method is said to be based on two fundamental ideas [14]:

1. If a healthy individual takes a drug and exhibits the same symptoms as someone who has a disease, then that drug is the remedy for that ailment, according to the principle of "like cures like."
2. "Infinite dilution": Even when diluted more than Avogadro's number, medication effectiveness is increased by repeated dilution and succession.

Objective Of The Study

The objective of the study is to illuminate Indian traditional medical

service and its importance, based on recent methodical reviews.

HISTORY OF TRADITIONAL INDIAN MEDICINE

An early civilization known as the Halaba culture lived in the area that is now the Indus River Basin around 2500 B.C. This culture had towns and a thriving handicrafts sector that produced goods for the textile, pottery, and metal industries. The Vedic civilization, with Brahmanism at its core, was developed by the Aryans who ruled India throughout the time frame known as the Vedic period (about 1400 BC to 600 BC). The early stages of the formation of ancient Indian philosophy and natural philosophy were likewise influenced by this civilization. The four main records that describe various types of knowledge, ideas, and legends that existed during the Vedic period are the Rigveda, Samaveda, Yajurveda, and Atharvaveda. The Vedas are another name for these four compilations. One of these manuscripts is the Atharvaveda, which contains a substantial quantity of medical knowledge, including information on human anatomy, physiology, embryology, diseases, medications, and therapies. On the other hand, medicine at this time was based more on a type of witch doctor than the naturalistic theory that it is now.

One of the four Upavedas—supplements and deductions from the Vedas—ayurvedic medicine—was gradually divided into two schools between around 1500 BC and 1000 BC. The Atreya Inner Medicine School and the Dhanvantari Surgery School are the names of these institutions. Two significant works on Ayurvedic medicine, the Caraka Samhita and the Susruta Samhita, were authored around the start of the first century BC by experts in these two fields. The Astanga Hridaya Samhita, the third great Ayurvedic medical book, was written around the year 500 AD. The ideas of two distinct Ayurvedic medical schools were blended in this paper. Ayurveda's medicinal classics were supplemented by a total of 16 important pharmacological monographs between the years AD 500 and AD 1900. These monographs were created in the order that they occurred.

There is evidence to imply that Ayurvedic treatment has improved almost every other medical system in the globe. Alexander the Great brought ayurvedic medicine back from his conquests in India and first introduced it to the Greeks and Romans. Through sea trade with India, the Egyptians first became familiar with ayurvedic treatment. In a similar line, Ayurvedic medicine was also introduced to the East at the same time as Buddhism.

MEDICINAL PLANTS USED IN ALTERNATIVE/ TRADITIONAL MEDICINES

About 60% of people worldwide use alternative medications. In addition to being used by rural populations in undeveloped countries for their primary healthcare, these treatments are also used in industrialised countries, despite the fact that modern medicines are the norm in those nations [24]. Many of the medicinal herbs and plants used in traditional medical practises are indigenous to the Indian subcontinent. Only therapeutic plants may be used to make herbal medications, according to the law. However, complementary medicines in conventional medical systems are made from plants, minerals, and other organic materials. Plants have long been used as a source of medicine, and India's modern system of healthcare continues to be heavily influenced by this history. Approximately 70% of India's rural population relies on the ancient Indian medical system known as ayurveda. The bulk of healers and doctors who use conventional medical systems make formulations based on their own formulas and then deliver them to patients. In Western nations, almost 40% of people are currently using herbal medicine as a kind of therapy for a variety of illnesses. The increased side effects, adverse drug reactions, and cost of modern medicines, as well as the attention that is being given to it by governmental organisations and various non-governmental organisations (NGO's) made up of the general public and researchers, are all contributing to the rapid growth of this interest in traditional medicines.

India is the world's top producer of medicinal plants since it cultivates the greatest number of them. Compared to the about 250,000 licenced medical practitioners in the Ayurvedic system, there are over 700,000 recognised medical professionals in the field of modern medicine. Only 7,000–7,500 of the 20,000 or so medicinal plants that are known to exist in India are used by traditional healers to cure a variety of illnesses. There are 2,000 plants used in Ayurveda, 1,300 in Siddha, 1,000 in Unani, 800 in homoeopathy, 500 in Tibetan medicine, 200 in

modern medicine, and 4,500 in folk medicine. Around 25,000 different plant-based remedies are used in traditional and folk medicine in India, and they have been shown to be beneficial. About 1.5 million medical professionals in India use the nation's traditional medical system to provide healthcare. In India, there are reportedly more than 7800 manufacturing facilities that produce traditional plant-based medicines and natural health products. As a result, more than 2000 tons of raw medicinal plant materials are required annually [9]. There are around 1,500 herbs that can be purchased commercially as dietary supplements or as ethnic traditional remedies [23].

FUTURE OF TRADITIONAL INDIAN MEDICINE

As more people become interested in alternative medicine and worried about the negative effects of synthetic drugs, herbal pharmaceuticals are gradually moving from the market's periphery into the mainstream. According to a WHO survey, 80% of people around the world have a favourable attitude on the development of traditional medicine and are receptive to the concept of utilising herbal medicine as their main medical therapy. India is home to around 6000 distinct types of herbs, which makes up about 75% of the herbal species discovered in emerging nations. More than 1000 industries produce traditional herbs. More than 3000 different varieties of medicinal plants can be found in India's abundant herbal plant resources. Indian medicine has used herbal remedies for thousands of years in clinical settings, giving the nation the chance to overtake China as the largest producer of herbal products. Additionally, the country has the chance to overtake other nations as the greatest producer of herbal products as a result [13].

A recent study concluded that traditional Indian medicinal practises have a strong foundation in scientific knowledge, validating them. However, there are still several barriers standing in the way of popularizing herbal medicine, especially in developed countries. The following obstacles must be overcome before attempting to spread knowledge about traditional herbal therapy throughout the world: (1) there are several difficulties in traditional Indian medicine, the biggest of which are those related to the purity and identification of the therapeutic ingredients. For instance, "multiple names for the same thing" or "different objects with the same name" coexisting in the same context is common. Herbal medicine is commonly contaminated with excess amounts of mold and heavy metals, is regularly misrepresented, and is difficult to find persons with professional identification expertise and experience. (2) The potential negative effects of herbs are not heavily stressed by Ayurvedic medical professionals. Even if adverse effects from herbs are much less common and severe than those from synthetic pharmaceuticals, one cannot ignore the fact that they do occur.

(3) Because of the government's lax enforcement of control, the area of habitats that are conducive to the growth of herbal medicines is decreasing. The uncontrolled exploitation of wild medicinal plants by pharmaceutical companies has had a harmful effect on India's pharmaceutical resources. As a result, a number of rare medical resources are in danger of going extinct. (4) A significant portion of herbal medicines supplied or produced in India do not adhere to standards set forth for the global market. This is yet another barrier that prevents Indian herbal medicines from reaching developed nations in the West.

CONCLUSION

Indian medicine is a healthy way of living as well as a type of treatment for numerous medical ailments. On the other hand, the practise of herbal medicine has remained shrouded in secrecy, as have its links to Buddhist theory and Indian theology. Indian medicine practise is currently in a vulnerable situation. Indian medicine exhibits two levels of distinction in the framework of modern medicine, where Western medicine maintains the position of the dominating paradigm: Ayurvedic medicine is commonly chosen over Western medicine by those who reside in areas with limited access to Western medical facilities. On the other side, expensive Ayurvedic treatments like aromatherapy and essential oil therapy are very common in upper-class societies. One of the reasons why Indian medicine is becoming more and more well-liked, especially in North America and Europe is that it is seen as a "alternative" to Western medicine. Some Americans and Europeans go so far as to visit the regions where Indian medicine first appeared in order to take part in life-courses and undergo a full Indian medicine regimen. Diet, yoga, meditation, stillness, massages, and spiritual talks are a few examples of this. This is starting to be used

as a new selling point by the Indian tourism sector.

REFERENCES:

- [1]. Bhanot A, Sharma R, Noolvi MN. Natural sources as potential anti-cancer agents: A review. *Int J Phytomed* 2011;3:9-26.
- [2]. Borchardt JK. The beginnings of drug therapy: Ancient mesopotamian medicine. *Drug News Perspect* 2002;15:187-92.
- [3]. Dev S. Ancient-modern concordance in ayurvedic plants: Some examples. In: *Development of Plant-Based Medicines: Conservation, Efficacy and Safety*. Dordrecht: Springer Netherlands; 2001. p.47-67.
- [4]. Ernst E. Anthroposophical medicine: A systematic review of randomised clinical trials. *Wien Klin Wochenschr* 2004;116:128-30.
- [5]. Fleming SA, Gutknecht NC. Naturopathy and the primary care practice. *Prim Care* 2010;37:119-36.
- [6]. Gordon T. Theorizing Yoga as a Mindfulness Skill. *Procedia Soc Behav Sci* 2013;84:1224-7.
- [7]. Grabia S, Ernst E. Homeopathic aggravations: A systematic review of randomised, placebo-controlled clinical trials. *Homeopathy* 2003;92:92-8.
- [8]. Huang KC. *The Pharmacology of Chinese Herbs*. 2nd ed. Boca Raton, FL: CRC Press; 1999.
- [9]. Jaiswal YS, Williams LL. A glimpse of Ayurveda - the forgotten history and principles of Indian traditional medicine. *J Tradit Complement Med*. 2016;7(1):50e53.
- [10]. Kalim MD, Bhattacharyya D, Banerjee A, Chattopadhyay S. Oxidative DNA damage preventive activity and antioxidant potential of plants used in Unani system of medicine. *BMC Complement Altern Med* 2010;10:77.
- [11]. Kumar B, Vijayakumar M, Govindarajan R, Pushpangadan P. Ethno pharmacological approaches to wound healing-Exploring medicinal plants of India. *J Ethnopharmacol* 2007;114:103-13.
- [12]. Lad VS. *Fundamental Principles of Ayurveda*. Albuquerque, New Mexico: The Ayurvedic Press; 2002. p.25-9.
- [13]. Liang Y, Kong DM, Chen ST, Wang SY, Lv Y. Overview of traditional medicine in asia-pacific region. *Asia Pacific Tradit Med*. 2005:14e79.
- [14]. Linde K, Clausius N, Ramirez G, Melchart D, Eitel F, Hedges LV, et al. Are the clinical effects of homeopathy placebo effects? A meta-analysis of placebo-controlled trials. *Lancet* 1997;350:834-43.
- [15]. Mukherjee PK, Wahile A. Integrated approaches towards drug development from ayurveda and other Indian system of medicines. *J Ethnopharmacol* 2006;103:25-35.
- [16]. Piet JH. *Logical Presentation of the Saiva Siddhanta Philosophy* (Doctoral Dissertation, Christian Literature Society for India (United Society for Christian Literature); 1952.
- [17]. Pillai NK. *History of Siddha Medicine*. Chennai, India: Department of Indian Medicine and Homeopathy; 1998. p.33-5.
- [18]. Prasad LV. Indian system of medicine and homeopathy. In: Chaudhury RR, Rafei UM, editors. *Traditional Medicine in Asia*. New Delhi: WHO- Regional Office for South East Asia; 2002. p.283-6.
- [19]. Ringler C, Willenbockel D, Perez N, Rosegrant M, Zhu T, Matthews N. Global linkages among energy, food and water: An economic assessment. *J Environ Stud Sci* 2016;6:161-71.
- [20]. Singh LK. *Indian Cultural Heritage Perspective for Tourism*. Delhi: Gyan Publishing House; 2008.
- [21]. Wah HL, Ramchurn K, Alladin SB. Metal levels in traditional Chinese and ayurvedic medicines. In: *Chemistry: The Key to Our Sustainable Future*. Dordrecht: Springer Netherlands; 2014. p.321-37.
- [22]. World Health Organization. *WHO Guidelines on Safety Monitoring of Herbal Medicines in Pharmacovigilance Systems*. WHO; 2004.
- [23]. Yang Deli, Kang Li. Traditional Indian medicine and traditional Chinese medicine. *Intern J Tradit Chin Med*. 2008;30(4):314e316.
- [24]. Zhang ZJ, Zhang YM, Xu J, Chen Y, Li XD. Development status of traditional Indian medicine. *World Chin Med*. 2014;9(5):654e657.