



## Research Article

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# Aspect of Ecology in Mainstream Natural: Traditional Medicine

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## Abstract

*The article presents several types of traditional medicine: Ayurveda, Chinese medicine, Unani medicine, Tibetan medicine and herbal medicine. Attention has been given to the context of ecology and ecosystem and how some flora and fauna properties are used. Traditional medicine largely uses medicinal plants which in many communities are the main treatment and source of disease prevention. Taking into account the increased use of drugs - the widespread amount of pharmaceuticals in pharmacies and their frequent overuse, many people are now deciding to look for the source of the disease and not to use the same and often more powerful medical agents. The article focuses on traditional medicine and its approach to treatment, as well as the extent to which man affects ecosystems and biodiversity for the sake of human health and well-being. One of the important occurrences of recent years has become an awareness of the growing ecological threat caused by the human economy. A man striving to satisfy his needs for consumerism has caused an avalanche of problems related to fauna and flora. In recent years, awareness has increased and there has been a trend to return to the natural treatments and way of life.*

**Keywords:** ecology, natural medicine, traditional medicine, Chinese medicine, Indian medicine, Tibetan medicine, medicalisation of society, history of medicine, medical theories, herbal medicine, Ayurveda

## 1. Introduction

Traditional medicine, i.e. Indian medicine: Ayurveda, Chinese medicine, Arabic medicine: Unani, and Tibetan medicine, have become global movements of broad economic importance. Many Asian countries widely use traditional medicine, although Western medicine in those places is widely practised. In countries where the dominant healthcare system relies on allopathic medicine or where traditional medicine has not been integrated into the national healthcare system, traditional medicine is often referred to as 'complementary', 'alternative' or 'unconventional'.

An example of the relationship between traditional/natural medicine and biodiversity is the use of the healing properties of elements of nature, i.e. those occurring in the natural environment. These are, specifically, such elements as: plants, otherwise referred to as herbs; various species of animals; and environmental conditions resulting from the specificity of a given place, which can be characterized by, for example, increased air humidity, high oxygen saturation, and the presence of spring water. The folk harvest pharmacopoeia, as well as professional medical systems such as

Chinese, Ayurvedic, Unani, herbal medicine, and biomedicine, are distinguished by the fact that they derive their remedies from nature. It looks like those who specialise in these areas take their healing substances from minerals and plants, and more precisely from such elements like leaves, stems, roots and bark. It is worth noting that they also obtain many substances from animals. In the United States, a greater proportion of the population benefits from traditional medicine physicians than from primary care physicians.

In the work entitled *Alternative and Complementary Therapy in Children with Cancer - Facts and Myths*, the authors assess the situation of alternative medicine on world markets: For several years, a systematic increase in patients' interest in unconventional medicine has been observed in the world, which is confirmed by studies conducted in many countries [7-9]. The justification for this state of affairs is given as, inter alia, growing distrust of doctors and health care facilities. Patients' dissatisfaction results, according to them, from the general, impersonal and technical approach of both primary care physicians and oncologists towards sick people, focusing mainly on the disease, rather than the patient, and the ubiquitous rush accompanying visits to the doctor. Thus, specialists and methods of alternative and complementary medicine constitute an attractive form of help for many people, offering a large amount of time per patient and a "holistic" approach. (K. Dulęba, M. Wysocki, J. Styczyński, pp. 695-704)

Phytotherapy is a common social phenomenon and even according to some studies it is a phenomenon the popularity of which is constantly growing. The positive values of natural methods are undoubtedly appreciated and even approved by the medical community.

Compounds of traditional medicine and nature are noticed in health benefits because its use does not involve the introduction of chemicals into the natural environment. The previously mentioned natural substances used come directly from nature and are therefore safe for animals, do not poison water reservoirs, do not adversely affect the natural environment, and do not disadvantageously affect basic needs in terms of food, water, clean air, shelter and climate stability. (Walczak-Duraj, 1998, pp. 22-36)

This article deals with the importance of ecology and ecosystem services for global and human health, and the threats that man is continuing to have on the natural environment, in particular on its more complex systems, such as ecosystems.

## 2. Ayurveda

*Ayurveda is not an alternative medicine and does not compete with Western medicine. It is simply a different medicine, based on different philosophical foundations, that is, having a different vision of the world and life itself.*

Tiziano Terzani, *Nothing Happens by Accident* (report from a trip in search of a cure for cancer)

The Ayurvedic worldview originated in India and is over 5000 years old, which makes it one of the oldest medical sciences known in the world. According to history, ancient medical therapy was given by Brahma - the god who created the world. The teaching of Ayurveda is part of the knowledge recorded in Vedic manuscripts. The word "ayur" means 'life' and "veda" means 'knowledge and learning'. According to the teaching, the elements appear in the body as primal energies: Vata, Pitta and Kapha. The condition for maintaining good health is their appropriate proportions and harmonious circulation. (Stopińska, 1993, pp. 40-59, 98-100)

The three primary energies are made up of the five elements:

- Vata - the combination of air and space,
- Pitta - the combination of fire and water,
- Kapha - the combination of water and earth.

Ayurveda is widely practised in India, but it is also very popular all over the world. It consists of two important messages:

by means of prophylaxis: maintaining health;  
at the time of the onset of the disease: use of treatment.

Ayurvedic medicine uses herbs and oils of all-natural origin. *Ayurvedic massages and 'pouring oil on Shirodhara's forehead'* are very well-known treatments.

Traditional Ayurvedic massage using oils, depending on the *doshas*, at a warm/room temperature is called *Abhyanga*. In order to cleanse the body of toxins and restore its balance, a therapy called *Panchakarma* is used, which consists of both internal and external treatments. Appropriate healing mixtures are selected individually, guided by the unique combination of *doshas* that each of us has. This is due to the fact that it is impossible to treat every person in the same way.

No two people are alike in Ayurveda, so there should be an individual approach to each person, because good for one may not necessarily benefit the other. Approach to the world and oneself is balanced, accumulation is avoided and conscious mental and bodily practice is applied. The world can be likened to Kapha, the environment (earth for us); and life consists of the elements of water and earth (earth, solid mass), which implies paying attention to structure, form, size, mass, cycles, growth and accumulation.

Due to the fact that Ayurveda is based on natural methods of treatment, diet, and herbal medicines, using only herbs and natural oils, it is a very ecological method of treatment. It uses about 2700 plants, so it is very close to nature and its energy. Often, Ayurvedic doctors, enthusiasts and patients are close to the environment and appreciate its beauty. Ecology is based on care, appreciation of nature and life, wealth and openness, and most importantly paying attention to the danger of accumulation. It is worth paying attention to how many painkillers and pharmaceuticals are over-used and abused in commonly used medicine.

### 3. Chinese Medicine

*"A wise man does not cure diseases, but what can lead to them."*

Huangdi Neijing (The Yellow Emperor's Canon of Chinese Medicine, the first classical text of Chinese medicine)

Chinese Medicine is slightly younger than the aforementioned Ayurveda and is about 3,000 years old. It comes from Taoist philosophy. According to Chinese philosophy, health is a balance between the two energies of yin and yang. Yin, or internal fluids and human tissues, and yang is activity and productivity (Palos, 1996, p. 9). Chinese Medicine is based on the theory of the five elements, and practitioners use them to study and classify the relationship between man and nature. These elements are wood, fire, earth, metal and water. Chinese medicine includes acupuncture, acupressure, diet, therapeutic gymnastics, thermopuncture and herbal medicine.

In order to avoid diseases, it recommends changing the way of life and the way of looking at the world, i.e. consider where and why we are. Serenity, well-being, self-confidence, proper nutrition, food quality, the way of thinking and much more are important aspects of life. According to the Chinese, health is not only the absence of disease, but the functioning of many factors in the system, e.g. people, society, everyday life and external factors. (Montakab, 2017, p. 10)

Chinese medicine depicts a human being as a component of a social group - family or, more broadly, society. Chinese philosophy concerns the use of natural ingredients, often products of endangered fauna and flora origin. The demand for such products poses a challenge to environmental protection. On the one hand, Chinese medical practice uses natural resources, thanks to which it does not destroy the environment, yet on the other hand, scientists have been trying to remedy the dangers posed by the consumption of endangered wildlife for healing purposes for considerable number of years. According to Chinese medicine, the loss of the above-mentioned yin is healed by eating yin. Traditional Chinese Medicine places emphasis on strengthening the balance, even when there is no medical reason to do so. In traditional Chinese medicine, tiger bone is used to treat rheumatic pains, but it is also used to prepare an alcoholic drink - wine.

However, it should be kept in mind that Chinese philosophy has been rooted in China for many of thousands of years and is still actively used and promoted. Changes to move away from Chinese medicine will not simply work as it is part of cultural life in China. It is a challenge for environmentalists to find sustainable solutions to certain ingredients. The success of the Southern Schisandra Sustainable Harvest Initiative in Panda Habitat shows that collaboration between conservationists and traditional Chinese medicine stakeholders can indeed produce positive conservation outcomes, while facilitating sustainable development.

#### 4. Herbal Medicine

*Nettle, your fibres  
are needed for making fabrics.  
Chamomile, you are treating  
not only people and animals,  
but also plants growing nearby.  
Sage, you are needed in suffering.  
Don't leave us even then  
when the rain is dark and cold under the umbrella.  
Fr. J. Twardowski, One More Litany*

Herbal medicine, or phytotherapy, is a type of therapy in which raw materials and plant preparations are used. It also includes plants known to us from our daily diet, i.e. vegetables and fruits, as well as plants growing in the wild. Wild plants and herbs are widely-used natural resources. Plants harvested in the wild have been used since antiquity and are still found in the wild in some areas, even in regions heavily affected by human activity like Europe. While originally the only known possibility by which ancient communities could satisfy their hunger or produce medicines, in helping with pain today, there are still many reasons for people to use plants in healing, one of which is the strong cultural bonds. (Grochowski W., Grochowski A., 1994, p. 12).

In Poland, harvesters and organisers of the purchase of herbs used for treatment purposes using wild plants are obliged to comply with the provisions of the Nature Conservation Act and comply with the prohibitions contained therein, with regard to protected species. In recent years, due to the increased harvesting of wild plants, the problem of pests has arisen in the collection of herbal raw materials, including chestnut trees, blueberries, cranberries, nettles, linden flowers, hawthorn, birch sap.

However, herbal raw materials can be obtained for personal needs and those interested in herbs, mushrooms or berries for their own use can do so, and it is in accordance with the law. In the area of the State Forests, collection is allowed, with the exception of the areas that are forbidden to enter. When harvesting herbs, plants or mushrooms, remember that the fruits should be picked by hand without the use of supporting tools, and you also need to be sure about the species of the plant you are harvesting. It is forbidden to collect plants and mushrooms in national parks and nature reserves.

Recently, birch sap has been widely harvested, and there is a risk that the bark and structure of the tree will be damaged because of inadequate knowledge. It should be kept in mind that the trunk of the tree is always damaged during sap extraction. You can help yourself but harm the plant. Collection of birch sap is legal only on your land. Unfortunately, many people collect sap near roads and public places that are polluted and the juice itself has uncertain properties. It should be considered that when collecting birch sap collected from trees on your land, you need to remember to properly secure the holes so as to minimise the risk of pathogens entering, which could cause the trees to die slowly.

As already mentioned, wild plants can have a very wide range of applications. Among other things, they can be eaten alone or as an addition to various dishes. In this instance, they are food. Equally so, they are used to obtain medicinal substances. They are also used as a decorative material,

and in some cultures they are used for "magical" practices. Considering such a wide use of herbs in human life, they should be viewed as a collection of ecosystem services.

The use of herbal medicine in the context of an individual, i.e. person, and the use of herbs as a drug substitute is ecological and undoubtedly healthier for its nature and organism. However, in herbalism moderation must also be observed, as it can have a negative impact on the environment if suddenly the greater part of society were to go to the forest or to the meadows to collect the herbs and plants they need.

Therefore, the use of herbs and plants is a very good method, as long as you have the necessary knowledge and do not harm the ecosystem. However, in both this and other methods, you need to exercise moderation and common sense.

## 5. Unami

Unami medicine is traditional Arabic medicine. Unami philosophy is practised in today's world in India, Pakistan, Bangladesh and Iran. Unami has recognised the impact of the environment and ecological conditions on human health for a long time. In addition to treating disease states, Unami places great emphasis on preventing disease and promoting existing health through the principles of the six basic factors of life. It puts great emphasis on maintaining a right ecological balance and keeping water, food and air free from any pollutants and pathogens.

Relatively rare in modern Unami therapy is *ilaj-bi-misla*, or organotherapy, a method of treatment involving the treatment of a diseased organ with tissue extracts from the same organ of a healthy animal. This method was recognised as disturbing flora and fauna by some ecologists. *Ilaj-bi-dawa*, or pharmacotherapy, is the use of drugs by the *hakim* (healers) of Unami. This method of treatment is considered by the *hakim* to be natural, environmentally friendly, less invasive and more effective than many other methods. The pharmacopoeia of the Unami system is extensive, enriched by over 2,000 medications from various herbal, mineral and animal sources.

## 6. Tibetan Medicine

Tibetan medicine is one of the oldest medical systems practiced in Asia, and Chinese and Indian medicines were a significant influence of its creation. Tibetan medicine also owes its origin to the spiritual tradition of Tibet known as Bon. Many people consider the Tibetan Plateau to be a pristine alpine environment untouched by pollution. However, scientists believe that traditional Tibetan medicine exposes people and the environment to high levels of mercury and methylmercury. Followers of Tibetan medicine often add minerals that may contain mercury and other heavy metals to mixtures, believing that they have a therapeutic effect. Scientists have conducted research on seven of the most famous and used mixtures of Tibetan medicine. They estimated that the average daily total mercury consumption by Tibetans was 34 times higher than in the mercury-specialised region of China and 200-3,000 times higher than in Japan, Norway and the US. Scientists estimated that in 2015, Tibetans expelled about 1,900 pounds of total mercury into municipal wastewater treatment plants and released about 7,900 pounds directly into the environment. Registered in both classical Chinese and Tibetan pharmacopoeia, the harvest of cordyceps negatively influenced the natural environment, since changes in the soil were observed. It is worth mentioning that due to the drought in 2014, the production of cordyceps decreased by 50%.

## 7. Summary

This article draws attention to the fact that the loss of biodiversity may also have an indirect impact on human well-being. By disrupting the functioning of ecosystems, loss of biodiversity makes ecosystems more susceptible to destruction and, as a result, providing people less with the services they need. Human health cannot be considered in isolation from the whole world, because it depends

to a large extent on the quality of the natural environment that constitutes human habitation: for a society to be healthy, the surrounding environment must be clean, harmonious and undisturbed. There is a close relationship between human health and nature.

Traditional medicine has recognition and respect for that, if only for the sake of a centuries-old tradition. In recent years, there has been a growing demand for alternative medical sources. Natural preparations are used all over the world today and often replace synthetic compounds. Herbs in the diet of an average person are becoming more and more popular, becoming the new way to deal with many modern diseases, and an increasing percentage of people are aware that traditional medicine is important not only because it offers an alternative treatment option, but also due to its socio-economic, conservation and historical properties related to tradition and culture.

There are many different possible consequences of ecosystem disruptions to human welfare and health, many of them still unexplored. Therefore, it is not easy to determine possible future negative consequences of changes in ecosystems.

However, we can observe how phenomena such as deforestation, as well as all human activities related to agriculture, chemicals and artificial irrigation cause an imbalance in ecosystems, among others through the decline or extinction of certain plant and animal species. It is worth noting that these changes contribute to the emergence and spread of infectious diseases in humans. Given the increased use of traditional medicine, options should be actively explored to successfully integrate it into the public health framework.

Building the structure of legal regulations in the field of traditional medicine will involve the necessity to make society aware of the changes that have occurred in ecosystems, as well as the impact of these changes on human health. Natural resources must be protected, and a condition for this is their sustainable exploitation. Therefore, it will be important to engage stakeholders who, apart from contributing to the creation of direct protective measures, will be associated with the promotion of rational management of environmental resources, planning all activities in the field of environmental protection and creating the conditions for maintaining natural balance.

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