

## **CHALLENGES AND FUTURE PROSPECTS OF HERBAL MEDICINES**

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### **ABSTRACT**

Plants and herbs are not new to humans; thousands of years ago and is still practiced today. Due to the many benefits of herbal medicines, both developed and developing countries are now turning to herbal medicines. India is the land of medicinal plants and traditional Indian medicine is based on herbs and herbs, which is also Ayurveda. India is famous for minerals derived from plants and their medicinal values are well documented. Herbs are also known as botany or botany study by the World Health Organization found that 80% of the world's population relies on herbal medicine to meet their basic medical needs. In fact, in developing countries, alternative medicine is popular and popular due to its effectiveness, safety and fewer side effects. Herbs have a long history of use and patient tolerance. This review article discusses the limitations and challenges faced by herbal medicines.

### **1. INTRODUCTION**

Herbal medicine or botanical medicine refers to the use of many parts of medicinal plants. Herbalism has a rich tradition of use outside of medicine. The advancement and development of analysis and quality control in the last few years has now become important along with the progress in clinical research. According to the World Health Organization (WHO), herbal medicine or herbal medicine is the result of knowledge, skills and practices based on indigenous ideas and knowledge of insects. Different traditions, whether defined or not, are also used to manage health such as prevention and diagnosis, development, or to treat physical and mental illnesses. Medicinal plants are natural products of plant origin, used in local or regional medicine to treat diseases, with little or no commercial use. Thousands of years before the development of allopathic medicine, medicinal plants were widely used for the benefit of humanity. Botanical medicines originally derived from plants include tinctures, teas, salves, powders, and other herbal preparations. The use and use of plants for healing purposes predates human history and paved the way for many modern medicines. Research and studies based on the clinical, medicinal and medicinal properties of this great plant form the basis of many of the first medicines such as aspirin (from willow bark), digoxigenin (from foxglove), morphine (from foxglove poppy), quinine (from Cinchona bark.) and pilocarpine (jaborandi). Herbal medicines account for approximately 70 to 80% of primary healthcare in developed countries worldwide. The use of herbs in primary care is high because they are believed to have no side effects and are cheap and easy. According to statistics from the World Health Organization, the use of herbal medicine is approximately three times that of traditional medicine. The World Health Organization has classified plants according to their origin, evolution and current use as follows:

- **Indigenous Herbal Medicine:**  
Indigenous herbal medicine includes plants that have a history of use in local communities, tribal groups, or regions and are known to have been used for a long time by a village or group of people due to their composition, treatment and dosage. It should be easily accessible, easy to use and free of charge to the local community or region.
- **Herbal medicine in the system:**  
Herbal medicine in the system has been used for many years and
- **Modified herbal medicines:**  
Using herbal medicine is achieved by changing the image, how much paper, how much, how much paper is obtained by changing the way of eating it. Usage and dosage, medicinal ingredients, preparation, instruction
- **Imported products with Herbal Medicines:** Imported Chinese herbal products begin to cover all medicinal products of Chinese medicinal herbs, including raw materials and products. Plants may need to be registered and sold in the country. We have different medical systems, and each body's medical philosophy and practice is influenced by the conditions, environment, and environment in which it was created.

### **History**

Natural products obtained from natural materials such as plants have been used by people as food and medicine for many years, especially plants or whole plants for healing and protection from diseases. It is difficult to calculate when people started using plants as medicine, but some ancient texts and other sources can prove the beginning. The earliest records of the use of medicinal plants to prepare medicines were found in Sumerian clay tablets from Nagpur dating back 5,000 years. It contains 12 medicinal preparations containing more than 250 different herbs, some of which contain alkaloids such as poppy, henbane and mandrake. The holy book of Indian Vedas talks about healing with the help of plants that are abundant in the country. The Chinese Materia Medica, written around 2500 BC by Emperor Shennong and based on the use of roots and herbs, contains 365 remedies (dried parts of medicinal plants), many of which are still used.

ed today.

Hippocrates, the father of medicine, mainly studied the human body and anatomy and wrote more than 60 medical books. He also published the humoral theory, explaining that the human body consists of four fluids that are important for health: blood, phlegm, yellow bile, and black bile. Hippocrates used only medicinal plants, and his most famous sayings are: "Food is medicine, medicine is food" and "disease results from the body's inability to digest the environment." The beginning of the 19th century is considered a turning point in the use and use of medicinal plants. The discovery, confirmation and isolation of alkaloids from poppy and other plants (1806) and the isolation of glycosides marked the beginning of scientific pharmacy. As the medical process was developed and refined, other active substances were discovered in herbs.

#### **Present Scenario:**

Plants or botanical medicine continues to spread throughout the world. Nowadays, many people in hospitals in many countries use herbs to treat various health problems. In the last few years, public interest in natural medicine has increased in both developed and developing countries. In developing countries such as Africa and India, the percentage of people who still rely on traditional and herbal medicines for primary healthcare is as high as 90%, accounting for 70% of the population. In China, traditional medicine accounts for approximately 40% of all medical care, and more than 90% of general hospitals in China have medical departments. Today, medicinal plants are used in the treatment of chronic and acute diseases as well as various diseases and problems such as heart disease, prostate problems, depression and pain, as well as strengthening the body, preventing diseases, etc. It is used for different purposes. In Africa, African flowers (herbs) have been used for years to treat symptoms of HIV related weight loss. It is now believed that nature is responsible for 90% of new drug molecules. Nature, Actinomycin, Bleomycin, Doxorubicin, Vinblastine, Irinotecan, Topotecan, Etoposide, Paclitaxel (anticancer), Metoflurane Quin, chloroquine, amodiaquine, artemisinin, dihydroartemisinin, artemether (artemether) etc. It has provided many good medicines such as. Other biguanides are harunganin, cryptol epine and maprouneasin (antidiabetic drugs) and calanolide A, cucumber, phenethyl isocyanate and phenolic diol (anti HIV drugs). There are approximately 25,000 potent botanical formulas in traditional use in India and more than 1.5 million traditional medicine practitioners. There are 7,800 herbal plants in India and around 2,000 tonnes of plants are used every year. There are reports that there is a large market in traditional medicine. The Ayurvedic medicine market size is approximately 50 billion rupees with an annual growth rate of 14%. Exports of herbal products are worth approximately Rs 100 crore. The demand for medicinal plants is increasing day by day, and the World Health Organization predicts that the global herbal market will grow from the current US\$62 billion to US\$5 trillion by 2050. More than 70% of the world's diversity is produced by India and China. Major global plant export markets include the European Union, the United States, Canada, Australia, Singapore and Japan, while Brazil, Argentina, Mexico, China and Indonesia are important plant markets.

#### **Challenges Associated :**

Herbal medicines are put on the market without the necessary safety or toxicological evaluation of the relevant drugs. Many of these countries still do not have effective systems to control the practice and quality standards of herbal medicines. The most common and widespread problems in many countries are those related to management conditions, safety and performance evaluation, quality control, audit safety control and negative or non-understanding of recommendations, additions/others.

#### **Challenges Affecting Drug Regulatory Policy:**

By definition, a dietary supplement is a food that is intended to supplement vegetables, rice and contains "food elements". The nutrients in these products will include many vitamins, minerals, herbs or other plants that the body needs. According

to DSHEA, if the herbal medicine was sold before 1994, additional toxicology studies are generally not required. In this way, the FDA bears the burden of proving that herbal products or "food ingredients" are toxic or unsafe for use. An other important challenge faced by many countries relates to the lack of sharing of regulatory information regarding medicinal plants between regulators and regulators.

**Challenges Associated to Assessment of Safety and Efficacy:**  
No one can deny the fact that the regulations and standards, standards and procedures of research methods for evaluating the safety and effectiveness of herbal medicines are more stringent than traditional or the requirements of Orthodox medicine are more complex. A single plant or herb can contain more than hundreds of natural ingredients, and herbal compounds can contain any of them many times over. Such an analysis of an active ingredient is practically impossible, especially when the herbal product is a mixture of two or more medicinal herbs.

#### **Challenges Associated to Quality Control of Herbal Medicines:**

The quality of the raw materials used in the production of plants determines their safety and effectiveness. The quality

of the resource or raw material depends not only on the quality of the material (genetics), but also on external factors such as the environment, good agricultural practices and good collection of medicinal herbs, including plant selection and cultivation. The combination of many factors makes it difficult to control the quality of Chinese herbal medicine raw materials. According to Good Manufacturing Practices (GMP), correct identification of medicinal plants, special storage and special care for various raw materials are important for the quality control of products. The main challenge is in the quality control of finished herbal products, especially herbal products. Therefore, the general rules and methods for quality control of herbal products are still more complex than for other drugs. To ensure the safety and effectiveness of herbal medicines, the World Health Organization continues to recognize the process of quality assurance and control measures for herbal products, such as national quality guidelines and standards, GMP, labeling and manufacturing licenses.

#### Challenges Associated to Safety Monitoring of Herbal Medicine:

In the past few years, issues relating to increasing use of herbal or natural medicines or products in developed countries. Furthermore, the dependence of many people living in the developing countries on plants as a major source of medicines coupled with weak regulation of herbal medicines in most countries and the occurrence of

high-profile safety concerns has increased awareness regarding the need to monitor safety and understanding of possible harmful as well as potential benefits linked with the use of herbal medicines. Adverse effects arising from consumption of herbal medicines are due to several factors among which include the use of the wrong species of plant, adulteration of herbal products, undeclared medicines, contamination, overdosage, misuse of herbal medicines by either healthcare providers or consumers, and use of herbal medicines with other medicines. There is a lack of proper knowledge regarding the importance of taxonomic botany and documentation by most manufacturers of herbal medicines, and this poses peculiar challenges during identification and collection of medicinal plants used for herbal remedies. To overcome the confusion created because of the common names, it is necessary to adopt the most commonly used binomial names for medicinal plants. For example, *Artemisia absinthium* L., which has at least 11 common names, contains an active narcotic derivative. Therefore, effective management of plants requires good collaboration between botanists, phytochemists, chemists and other stakeholders.

#### Future Prospects

Future is in the phase of increasing demand and fast-growing market of herbal medicines and other herbal healthcare products, in both developing and developed countries of the world.

#### Growth and Integration into Primary Health Care:

As people seek better ways to heal, herbs are being accepted and incorporated into treatments.

#### normal pain.

#### Advances in Scientific Research and Evidence-Based Practice:

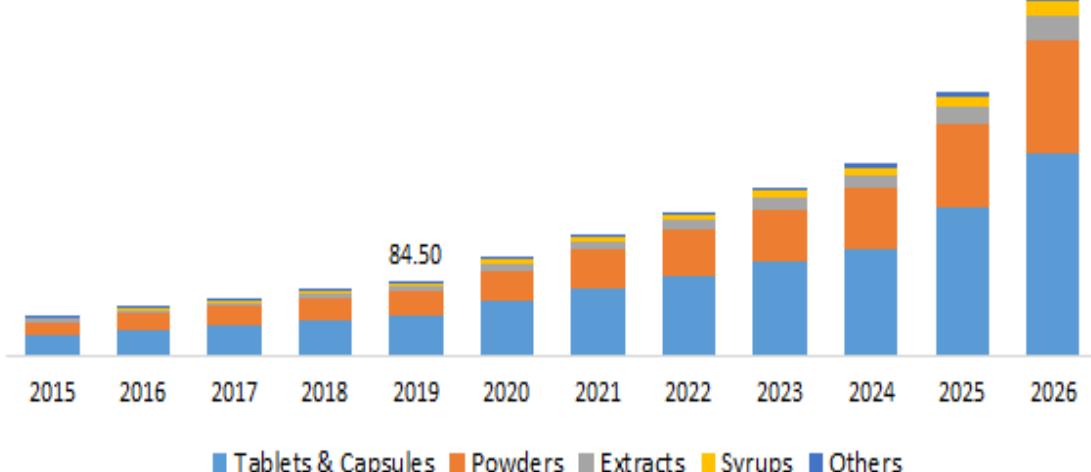
Continuous research expands our understanding of the effectiveness, quality and safety of herbs, paving the way for evidence-based recommendations.

#### Potential for Discovery of New Drugs and New Treatments:

Plants represent a large source of bioactive substances and have the potential to discover new drugs and new drugs.

#### Global Market Size of Herbal Medicine

**Global Herbal Medicine Market Estimates, By Form, 2015 - 2026**  
(USD Billion)



## **2. CONCLUSION**

In this context, international recognition and use of medicinal plants and related products continues to increase. With increasing advances in recent years, problems with adverse reactions have also emerged and are no longer a problem because herbal products are classified as "safe" because they are obtained "naturally". Therefore, the rules regarding herbal medicines around the world need to be standardized and strengthened. It is now the responsibility of regulatory bodies to oversee the management and quality of herbal products and to facilitate their development to the clinical trial stage.

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