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Review on Use of Herbal Medicine: A Growing Trend

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ABSTRACT: Herbal remedies are a blend of indigenous medical systems and centuries of therapeutic knowledge. It covers how to choose, prepare, and use herbal medications to treat, manage, and control various conditions. Studies show that plant-based medications may cure skin problems, AIDS, cancer, diabetes, anaemia, hypertension, TB, and many other infectious diseases. Egypt, South America, China, and India still use plant-based treatments for different ailments. Modern medicine uses more herbal medication. These surgeries are the outcome of centuries of traditional medicine. These applications are unorthodox since 80% of the globe still uses conventional medicine. Herbal products are becoming more popular due to their cultural acceptance, affordability, efficacy, and safety. Due to clinical study on herbal product safety and effectiveness, their quality and analysis have improved. The WHO recognizes herbal medicine's health benefits. Hence, recommending herbal medication evaluation using current control methodologies and pertinent criteria. This research describes herbal medicine's current and future state.

Keywords: Traditional medicine, Herbal medicine, Growing trend, Safety and toxicity and Regulations.

I. INTRODUCTION

Herbal remedies have been used for centuries as a type of therapy in both industrialized and underdeveloped countries. The first humans depended solely on the resources of the natural world for everything from food and shelter to medicine. These people were able to tell the difference between helpful and harmful creatures. Over 50,000 plant species are claimed to have medicinal characteristics based on research that has been published. Modern therapeutic medications like aspirin, morphine, digitoxin, and quinine owe a great deal to the scientific verification of herbal medicine[1-3]. Traditional medical systems all around the world may trace their roots back to the gradual accumulation and spread of information about plant-based cures. Nutraceuticals, which include phytonutrients and herbal medicines, are becoming more popular as a means of treating a broad variety of health disorders across a wide variety of national healthcare systems. Natural remedies have been more popular over the last decade in both developed and developing nations, as seen by the widespread availability of these herbal treatments in both drugstores and food and grocery shops. Traditional medicine, which often involves the use of herbs, is seen as a key part of culture in the places where up to four billion people depend on them as their major source of healthcare[3, 4].

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Figure I.1 Different types of Medicinal Plant

II. HERBAL MEDICINE

The question "What are these herbal medicines?" arises often due to the wide diversity of herbal ingredients, products, and preparations used in the treatment procedures of many traditional medical practices. The following discussion is meant to help in their understanding. Herbal medicines are pharmaceuticals used for medicinal and therapeutic purposes that are primarily derived from herbs or plants, plant components, and plant products with minimal industrial processing or chemical manipulation; these are sometimes referred to as Botanical medicines or Phytomedicines. Herbal treatments include a wide range of items that use plant parts, other plant components, or mixtures of these as active ingredients, including herbs, herbal materials, herbal preparations, and finished herbal products[5-6]. Healthcare practices using herbal remedies include the use of suitable herbs, plants, plant components, plant products, or preparations for the prevention, treatment, and maintenance of good health. Whether whole, broken, or powdered, herbs may be any part of a plant, including but not limited to: leaves, flowers, fruits, seeds, stems, forests, barks, roots, rhizomes, and other plant components[7-9].

Table II.1 Properties of some major constituents of medicinal plants.

Class	Characteristic	Use	Pharmacological activity
Alkaloids	Organic nitrogenous bases, bitter taste, colorless/yellow, crystalline solids, liquids	Biosynthesis of pharmaceuticals	Anticancer, antimicrobial, Amoebicidal, anti-inflammatory,
Saponins	Soap-like forming property, bitter taste,	Detergent, wetting and emulsifying agent	Antifeedants, antifungal, Antiobesity, antioxidant
Tannins	Water-soluble, leather hides,	Used for cationic dyes, production of ink,	Antimutagens, anticarcinogens, antimicrobial,
Flavonoids	Free radical scavenger	Prevents microbial infection,	Anti-inflammatory, antimicrobial, antibacterial, antioxidant

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III. HIGH DEMAND FOR MEDICINAL PLANTS IN INDIA

India has 15 agro climatic zones and 18,000 plant species, 6,000 to 7,000 of which have medicinal uses. Ayurveda, Unani, Siddha, Sowa-Rigpa, and homoeopathy all make use of these plants in some capacity, and they are also employed by plant-based pharmaceutical firms. Around one hundred and eighty different kinds of medicinal plants are traded annually, with a combined consumption of more than a hundred and eighty metric tonnes. Eighty percent of therapeutic plants are collected from the wild, while the other sixty-nine percent are grown in environmentally damaging ways[10]. There is a severe imbalance between the supply and demand for medicinal plants in India, which are used to make Ayurveda medications. High-value medicinal plants had a 50% rise in demand despite a 26% fall in availability, as reported by the "All India Trade Study of Prioritized Medicinal Plants, 2019.

3.1 Market Scenario

The Indian market for medicinal plants is expected to grow at a CAGR of 38.5% from its 2019 value of Rs. 4.2 billion to Rs. 14 billion in 2026. There is already a worldwide market of almost $120 billion in botanicals. Primitive farming and quality control practices, a lack of processing, a lack of research and development, a lack of product standardization, and a lack of a legal framework for the trading of medicinal plants all restrict India's contribution to the worldwide export of herbs and herbal products. There has been a steady growth in the export of high-value medicinal plant extracts and plants throughout the years. The value of India's herb exports increased to US$330.18 million in 2017–18, a 14.22% year-on-year growth. Extracts from medical plants and herbal products with added value had a 12.23% growth in exports to US$ 456.12 million in 2017–18. The market for herbal or value-added extracts of therapeutic plants is increasing internationally, especially in Europe and other rich nations[11-12].]

3.2 Government initiatives

The government of India has implemented a number of initiatives to increase the production and distribution of medicinal plants. Producers may get a subsidy of up to 75% from the government and non-profit organizations thanks to the National Medicinal Plants Board's (NMPB) plans and policies for financial assistance in different regions of medicinal plant divisions, guaranteed by promotional and commercial strategies. The export of botanicals and medicinal plants is mandated by the Shellac & Forest Products Export Promotion Council (SHEFEXIL). The U.S. Department of Commerce has established export promotion councils (EPCs) to increase global demand for a wide variety of goods. Medical product export promotion is under the purview of the Pharmaceuticals Export Promotion Council (PHARMEXCIL). The EPCs provide assistance to the exporting community and use a wide variety of promotional strategies to increase exports[13]. Via the Market Access Initiative (MAI) Programme of the U.S. Department of Commerce, EPCs/trade organizations are able to get funding for activities including trade shows, BSMs, RBSMs, R&D, market studies, and RBSM hosting. The Merchandise Exports from India Programme (MEIS) provides incentives to the exporting community for particular commodities in order to overcome poor infrastructure and the associated costs of exporting things produced in India. In this way, attention is directed squarely at the products that are crucial to India's exports, have the potential to create employment, and improve the country's competitiveness on the global market. As part of its International Cooperation Strategy, the Ministry of AYUSH provides exporters with funding for things like attendance at trade shows, organization of international conferences, and reimbursement for product registration[14].

IV. COMMON HERBAL MEDICINES

4.1 Ginkgo

In traditional medicine, ginkgo biloba is used to improve memory and circulation. Nevertheless, not all research support the use of ginkgo for the treatment of dementia or intermittent claudication. Also, it may help seniors with memory loss. Lab tests have shown that Ginkgo improves circulation by relaxing blood vessel walls and decreasing platelet stickiness. This data shows that ginkgo could improve the performance of several blood-thinning drugs like aspirin. Those who are currently on blood-thinning medication should get medical clearance before using ginkgo. Seizure sufferers and people who have trouble conceiving may also be worried and should talk to their doctor[15].

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Figure IV.1Ginkgo biloba

4.2 Kava kava

Taking piper methysticum is said to help you relax, improve your health, and increase your happiness. Many studies have shown promising results when using kava to treat nervous system diseases including anxiety and sleeplessness. However there is serious worry that kava might harm the liver. Kava may have caused liver damage in a very small number of people who ingested it either on its own or in combination with other drugs or herbs, but the exact number is unclear. Moreover, it is unclear whether kava is harmful even at the doses originally advised or just at larger doses. Kava is no longer commercially accessible in various countries[16].

Figure IV.2Piper methysticum

4.3 Saw Palmetto

Almost 2 million American men take serenoa repens to alleviate symptoms of benign prostatic hyperplasia (BPH), an enlargement of the prostate gland that is not malignant. Several studies have shown that using this herb to address problems including midnight urination, frequent urination, and bladder control issues has positive effects. However there is disagreement among the studies. Saw palmetto did not improve BPH symptoms and indicators any more than a placebo in at least one high-quality trial[17].

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Figure IV.3Serenoa repens

4.4 St. John's wort

Hypericum perforatum is often used for its antidepressant effects. The vast majority of studies suggest that St. John's wort is an effective therapy for moderate to severe depression with fewer side effects than most other prescription antidepressants. Nevertheless, there are potential negative drug interactions with the plant, notably with birth control pills [18].

Figure IV.4Hypericum perforatum

4.5 Valerian

Many people turn to valerian officinalis as a safe and effective substitute for prescription sleeping pills. Several research have failed to confirm valerian's benefits, although others have. There is some evidence that valerian has fewer side effects than many pharmaceutical sleep aids, including drowsiness in the morning. But, valerian might interfere with certain drugs, especially psychiatric ones, so it's important to check with your doctor before taking it[19].

Figure IV.5Valeriana officinalis

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4.6 Echinacea preparations

The immune system may be strengthened by consuming Echinacea purpurea or another type of Echinacea. Despite conflicting evidence on its efficacy in treating or preventing the common cold, Echinacea remains one of the most widely used herbal treatments. A meta-analysis of 14 clinical investigations on the impact of Echinacea on the incidence and duration of the common cold found that the risk of contracting a cold was decreased by 58%. In addition, the average duration of a cold was reduced by 1.4 days[20].

Figure IV.6Echinacea purpurea

V. FUTURE PROSPECTS OF HERBAL MEDICINE IN INDIA

India lacks medicinal plant cultivation regulations. If farmers formed cooperatives and improved the supply chain, they might cultivate and sell more therapeutic plants. New companies have improved technology. This company uses AI and data analytics for crop profiling, seed analysis for enhanced germination, and other precision farming procedures. Both emerging and developed nations are adopting herbal medicines and other health items. Policymakers, healthcare professionals, and the public worry about their safety, efficacy, quality, availability, preservation, and future development. Herbal and CAM treatments require additional investigation[21]. Herbal medicine may heal individuals and boost the economy, but it requires a lot of study to address these concerns and fulfil public demand. Phytochemical and pharmacological studies of medicinal plants and herbal remedies are being conducted worldwide. Active chemical components are being identified and proven safe and effective [22].

VI. CONCLUSION:

This in-depth investigation found that herbal therapies and preparations are vital to many countries' health and lifestyle systems. The global health care system is using medicinal plants more. This applies to both illness and health maintenance. Healthcare's future is bright. Quality must be considered in global labelling as more botanical products reach the market. Before using herbal remedies, they must be standardised and quality controlled. Medicinal plant businesses have struggled in developing countries because few people comprehend the social and economic benefits. More research is needed to employ the chemicals that caused biological activity[23].

REFERENCES

[1]. Han Y, Sun H, Zhang A, Yan G, Wang XJ. Chinmedomics, a new strategy for evaluating the therapeutic efficacy of herbal medicines. Pharmacology & therapeutics. 2020 Dec 1; 216:107680.

[2]. Liu CX. Overview on development of ASEAN traditional and herbal medicines. Chinese Herbal Medicines. 2021 Oct 1; 13(4):441-50.

[3]. Panyod S, Ho CT, Sheen LY. Dietary therapy and herbal medicine for COVID-19 prevention: A review and perspective. Journal of traditional and complementary medicine. 2020 Jul 1; 10(4):420-7.

[4]. Luo L, Jiang J, Wang C, Fitzgerald M, Hu W, Zhou Y, Zhang H, Chen S. Analysis on herbal medicines utilized for treatment

of COVID-19. Acta Pharmaceutica Sinica B. 2020 Jul 1; 10(7):1192-204.
[5]. Pengelly A. The constituents of medicinal plants. Cabi; 2021 Apr 19.
[6]. Crellin JK, Philpott J. A reference guide to medicinal plants: herbal medicine past and present. Duke University Press; 2020 Dec 31.
[7]. Zhu F. A review on the application of herbal medicines in the disease control of aquatic animals. Aquaculture. 2020 Sep 15; 526:735422.
[8]. Ang L, Lee HW, Kim A, Lee MS. Herbal medicine for the management of COVID-19 during the medical observation period: a review of guidelines. Integrative Medicine Research. 2020 Sep 1; 9(3):100465.
[9]. Lee DY, Li QY, Liu J, Efferth T. Traditional Chinese herbal medicine at the forefront battle against COVID-19: Clinical experience and scientific basis. Phytomedicines. 2021 Jan 1; 80:153337.
[10]. Gowthami R, Sharma N, Pandey R, Agrawal A. Status and consolidated list of threatened medicinal plants of India. Genetic Resources and Crop Evolution. 2021 Aug; 68(6):2235-63.
[11]. Mehta P, Bisht K, Sekar KC. Diversity of threatened medicinal plants of Indian Himalayan Region. Plant Bio systems-An International Journal Dealing with all Aspects of Plant Biology. 2021 Nov 2; 155(6):1121-32.
[12]. Rasool A, Bhat KM, Sheikh AA, Jan A, Hassan S. Medicinal plants: Role, distribution and future. Journal of Pharmacognosy and Phytochemistry. 2020; 9(2):2111-4.
[13]. Anand, U., Tudu, C.K., Nandy, S., Sunita, K., Tripathi, V., Loake, G.J., Dey, A. and Proćków, J., 2022. Ethno dermatological use of medicinal plants in India: From Ayurvedic formulations to clinical perspectives–A review. Journal of ethnopharmacology, 284, p.114744.
[14]. Kadam ST, Pawar AD. Conservation of medicinal plants: A review. Int. Ayurvedic Med. J. 2020; 8:3890-5.
[15]. Zahra W, Rai SN, Birla H, Singh SS, Rathore AS, Dilnashin H, Keswani C, Singh SP. Economic importance of medicinal plants in Asian countries. Bio economy for sustainable development. 2020:359-77.
[16]. Bhattacharjee T, Sen S, Chakraborty R, Maurya PK, Chattopadhyay A. Cultivation of medicinal plants: Special reference to important medicinal plants of India. Herbal medicine in India: Indigenous knowledge, practice, innovation and its value. 2020:101-15.
[17]. Mukherjee S, Chatterjee N, Sircar A, Maikap S, Singh A, Acharyya S, Paul S. A Comparative Analysis of Heavy Metal Effects on Medicinal Plants. Applied Biochemistry and Biotechnology. 2022 Apr 30:1-36.
[18]. Khasim SM, Long C, Thammasiri K, Lutken H, editors. Medicinal plants: biodiversity, sustainable utilization and conservation. Singapore: Springer; 2020 Apr 3.
[19]. Singh PA, Bajwa N, Chinnam S, Chandan A, Baldi A. An overview of some important deliberations to promote medicinal plants cultivation. Journal of Applied Research on Medicinal and Aromatic Plants. 2022 May 25:100400.
[20]. Barkat MA, Goyal A, Barkat HA, Salauddin M, Pottoo FH, Anwer ET. Herbal medicine: clinical perspective and regulatory status. Combinatorial chemistry & high throughput screening. 2021 Nov 1; 24(10):1573-82.
[21]. Amiri MS, Yazdi ME, Rahnama M. Medicinal plants and Phytotherapy in Iran: Glorious history, current status and future prospects. Plant Science Today. 2021 Jan 1; 8(1):95-111.
[22]. Qadir SU, Raja V. Herbal medicine: Old practice and modern perspectives. In Phytomedicines 2021 Jan 1 (pp. 149-180). Academic Press.
[23]. Giannenas I, Sidiropoulou E, Bonos E, Christaki E, Florou-Paneri P. The history of herbs, medicinal and aromatic plants, and their extracts: Past, current situation and future perspectives. In Feed additives 2020 Jan 1 (pp. 1-18). Academic Press.