

A REVIEW: NATURAL MEDICINE PAST, PRESENT AND FUTURE**Sagar Pol^{*1}, Sachin S. Mali², Upasana Ghodke¹, Vilasrao Kadam¹, Umesh Mane¹ and Nisha Rathod¹**¹Department of Pharmacognosy, Bharati Vidyapeeth's Institute of Pharmacy, CBD Belapur Navi Mumbai, India.²Department of Pharmaceutics, Y. D. Mane Institute of Pharmacy (Diploma), Kagal, Kolhapur, India.***Corresponding Author: Sagar Pol**

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ABSTRACT

Home grown medication (additionally herbalism) is the investigation of the plant science and utilization of therapeutic plants. Home grown prescriptions are the amalgamation of restorative encounters of ages of rehearsing doctors of indigenous frameworks of medication for more than several years. They are presently in incredible interest in the creating scene for essential social insurance not on the grounds that they are economical yet additionally for better social agreeableness, better similarity with the human body and negligible symptoms, wellbeing experts just as the overall population. There are a few concerns related with natural medication in regards to its pharmacognosy and normalization contrasted and regular medications. Throughout the previous two decades explore endeavors have been escalated in both created and creating nations to experimentally assess utilizing clinical and approve the home grown medications. Consequently, thinking about the more noteworthy future viewpoints in home grown prescriptions, we endeavored to portray methodically the customary use, flow status and eventual fate of its utilization in treating different maladies and related pharmacological issues. Besides, requirement for future examinations in creating natural medication as current restorative specialists is tended to.

KEYWORDS: Conventional Drug, Therapeutic Agents, Traditional Medicines, Indigenous System, Side Effect Etc.

INTRODUCTION

Plants have been the reason for clinical medications through quite a bit of mankind's history, and such conventional medication is still broadly rehearsed today. Home grown prescriptions include the blend of practices of indigenous frameworks of medication and a few restorative encounters of numerous past ages. Which conveys significant rules to the determination, arrangement, and utilization of home grown detailing for the treatment, control, and the board of a scope of diseases. Plant-based medications are accounted for to be effectively used to fix skin maladies, tuberculosis, diabetes, jaundice, hypertension, mental scatters, malignancy, AIDS, and numerous different irresistible ailments. Nations with old civic establishments like India, China, South America, and Egypt are as yet utilizing a few plant-based solutions for treating such afflictions.^[1]

As indicated by WHO home grown medications are characterize as "Conventional home grown drugs are normally happening, plant-inferred substances with negligible or no mechanical preparing that have been utilized to treat sickness inside nearby or provincial mending rehearses". Around 100 years prior, normal herbs were the primary solution for treating human maladies. It has been assessed that 25% of present day

drugs are produced using plants initially utilized customarily, for example, anti-inflammatory medicine, artemisinin, ephedrine, and paclitaxel. Be that as it may, there is restricted logical proof to build up the wellbeing and viability of most home grown items. With the wide use of synthetic medications, home grown medication and other customary treatments have demonstrated sharp withdrawal. As a nation with rich natural asset, China isn't a special case. In late decades, range of illness has moved and the complex incessant ailments have become the principle part. The impact of Western medication. Treatment isn't good and issues of the unfriendly medication response are additionally exceptionally conspicuous. The integral and elective treatment, particularly the natural medication, has increased more consideration and has likewise gotten well known.^[1-5]

The utilization of home grown drugs and phytonutrients or nutraceuticals keeps on extending quickly over the world with numerous individuals presently falling back on these items for treatment of different wellbeing challenges in various national social insurance settings (WHO, 2004). This previous decade has clearly seen an enormous flood in acknowledgment and open enthusiasm for normal treatments both in creating and created nations, with these home grown cures being accessible in tranquilize stores, however now

additionally in food stores and markets. It is accounted for that up to four billion individuals (speaking to 80% of the total populace) living in the creating scene depend on home grown therapeutic items as an essential wellspring of human services and conventional clinical practice which includes the utilization of herbs is seen as a basic piece of the way of life in those networks (Mukherjee, 2002; Bodekeret al., 2005; Bandaranayake, 2006). The utilization of natural cures has likewise been broadly grasped in many created nations with integral and elective meds (CAMs) presently turning out to be standard in the UK and the remainder of Europe, just as in North America and Australia (Committee on the Use of Complementary, and Alternative Medicine by the American Public, Board on Health Promotion, and Disease Prevention, Institute of Medicine, 2005; Calapai, 2008; Braun et al., 2010; Anquez-Traxler, 2011).

Truth be told, while places like the UK have a verifiable convention of utilizing natural drugs (Nissen, 2010), the utilization is additionally boundless and settled in some other European nations (Calapai, 2008). In these created nations, the most significant among numerous different purposes behind looking for home grown treatment is the conviction that it will advance more beneficial living. Home grown medications are, in this manner, frequently saw as a fair and moderate way to deal with mending and people who use them as home cures and over-the-counter medications go through tremendous measure of cash (more than billions of dollars) on home grown items. This clarifies to some extent the explanation deals of home grown medications are blasting and speaks to a generous extent of the worldwide medication advertise (Roberts and Tyler, 1997; Blumenthal et al., 1998; WHO, 2002a; Kong et al., 2003; Pal and Shukla, 2003; WHO, 2005a; Bandaranayake, 2006).^[6-10]

History Of Herbal Medicine

Since pre-noteworthy occasions, overall natural medication is utilized for treatment, control and the board of assortment of sicknesses. There is abundant archeological proof to help the way that crude man utilized plant and herbs for restorative purposes. For example, dust investigations of various plants found in the grave of Neanderthal man covered 60,000 years prior in Iraq showed that the plants covered with the body were all of restorative worth. In another occasion, therapeutic herbs found in the individual possessions of the 'Ice Man' whose body was solidified in the Swiss Alps for over 5,300 years are thought to have been utilized to treat the parasites found in his digestive tract.^[11-12]

Different sources likewise give sufficient recorded proof of man's utilization of plants for therapeutic purposes over in classical times. For instance, the Sumerian mud tablet, dated around 5,000 years prior, recorded and portrayed the therapeutic employments of plants, for example, tree, caraway and thyme by the antiquated Sumerian of Mesopotamia. These plants are as yet

utilized everywhere throughout the world for restorative purposes. The Ebers papyrus, expounded on 3,500 years back focuses to the way that antiquated Egyptians utilized plants, for example, mandrake for help with discomfort and garlic for the treatment of heart and circulatory issue. In Old Testament of the Bible (Ezekiel 47:12) likewise utilization of plants for therapeutic purposes has been accounted for. Antiquated China is likewise a wellspring of data about the early utilization of restorative plants. 'The Pen Tsao' (Canon of Herbs) a Chinese pharmacopeia distributed around 1600 BC contains rundown of a few restorative plants and their uses-including Ma-Huang, the bush that acquainted the medication ephedrine with present day medication. In India home grown medication, the Rig-Veda, an assortment of Hindu holy stanzas, contains most parts of Vedic science, for example, yoga, reflection, mantra and Ayurveda, which are still broadly rehearsed today. In the antiquated western world, the improvement of western medication is accepted to have been impacted by the composition of Greek savants, specifically, Hippocrates (460-377 BC) and Aristotle (384-322 BC), and crafted by Dioscorides, who ordered data on in excess of 600 plant species with restorative incentive in his acclaimed book 'De Materia Medica'. This book, which was written in the main century AD, remained the standard reference in a large portion of Europe for over 1,500 years. During the Renaissance (476-1500 AD) and the Middle Ages natural medication assumed a significant job in human services the executives. Moreover, the religious communities protected data about home grown cures in nations, for example, England, Ireland and Germany.

Simultaneously, the Arabs saved a great part of the Greco-Roman ability, and extended it to incorporate the utilization of their own assets, along with those of the Chinese and Indian, which was obscure to the Greco-Roman world. In the United States, home grown conventions brought by the European pilgrims were converged with those obtained from local Americans, until the mid 1900s when extension of the pharmaceutical enterprises, combined with the headway in investigative methods just as expanded information on manufactured science, prompted a decay of home grown medication rehearses in the in the created world. Little is thought about African customary medication specifically and the utilization of natural medication by old African individuals. In spite of the fact that it is hard to express the specific time frame the utilization of restorative plants started in Africa, the probable most punctual time was around 1770 BC in the code of Hammurabi (Babylon) and 1550 BC in Egypt. This is on the grounds that African conventional frameworks of medication are ineffectively recorded and, to an enormous degree, remain so to date. African customary frameworks of medication were once accepted to be crude and wrongly mocked by remote religions particularly during the pilgrim rule in Africa and in this manner by ordinary or conventional medication professionals. Notwithstanding the concealment by the pilgrim rulers and the negative

perspectives of the customary experts, conventional healers and cultivators in Africa kept on apportioning home grown cures Collaborative ethnobotanical contemplates, and ensuing trial assessment have affirmed the helpful capability of some African restorative plants, for example, *Acacia Senegal* (Gum Arabic), *Agathosma betulna* (Buchu), *Aloe ferax* (Cape Aloes), *Aloe Vera* (North African Origin), *Artemisia afra* (African Wormwood), *Aspalanthus linearis* (Rooibos tea), *Catha edulis* (Khat), *Commiphora myrrha* (Myrrh), *Harpagophytum procumbens* (Devils Claws), *Hypaxis hamerocallidea* (African potato) and *Catharanthus roseus* (Rosy Periwinkle). A few creators have additionally checked on the ethno clinical employments of a few plants which were exceptionally esteemed by antiquated Egyptians are still being used today.^[12-16]

Herbal Medicine Scenario In India

The turnover of herbal medicines in India as over-the-counter products, ethical and classical formulations and home remedies of Ayurveda, Unani and Siddha systems of medicine is about \$ 1 billion with a meagre export of about \$ 80 million. Psyllium seeds and husk, castor oil and opium extract alone account for 60% of the exports. 80% of the exports to developed countries are of crude drugs and not finished formulations leading to low revenue for the country. Thus the export of herbal medicines from India is negligible despite the fact that the country has a rich traditional knowledge and heritage of herbal medicine. Considering the huge herbal medicine and nutraceutical market in developed countries, India should reconsider exporting crude herbal drugs. Three of the 10 most widely selling herbal medicines in developed countries, namely preparation of *Allium sativum*, *Aloe barbadensis* and *Panax* species are available in India. India is the largest grower of Psyllium (*Plantago ovata*) and Senna (*Cassia senna*) plants and one of the largest growers of Castor (*Ricinus communis*) plant. These are also exported in large amounts and yet our market share is dismal because of export of crude extracts/drugs.

Twenty other plants are commonly exported as crude drugs worth \$ 8 million. Five of these, namely *Glycyrrhiza glabra*, *Commiphora mukul*, *Plantago ovata*, *Aloe barbadensis* and *Azadirachta indica* are even used in modern medicine. The plants *Glycyrrhiza glabra*, *Piper longum*, *Adhatoda vasica*, *Withania somnifera*, *Cyperus rotundus*, *Tinospora cordifolia*, *Berberis aristata*, *Tribulus terrestris*, *Holarrhena antidysenterica* and *Boerhavia diffusa* have been used in 52 to 141 herbal formulations and triphala (*Terminalia chebula*, *Terminalia belerica* and *Embelica officinalis*) alone have been used in 219 formulations (Table 3). In spite of this, efforts have not been made to preserve their germ-plasm from different localities, identification of active plants vis-à-vis climatic zone and development of agrotechnologies for their organized farming and use as authentic materials in herbal medicines for better economic gains.

India is one of the 12 mega biodiversity centres having over 45,000 plant species. Its diversity is unmatched due to the presence of 16 different agroclimatic zones, 10 vegetative zones and 15 biotic provinces. The country has 15,000– 18,000 flowering plants, 23,000 fungi, 2500 algae, 1600 lichens, 1800 bryophytes and 30 million micro-organisms⁵. India also has equivalent to 3/4 of its land exclusive economic zone in the ocean harbouring a large variety of flora and fauna, many of them with therapeutic properties. About 1500 plants with medicinal uses are mentioned in ancient texts and around 800 plants have been used in traditional medicine; the most widely used plants are given in Table 4. Tables 5 and 6 give the names of medicinal plants exported and imported in India, respectively. The major traditional sector pharmanas, namely Himalaya, Zandu, Dabur, Hamdard, Maharishi, etc. and modern sector pharmanas, namely Ranbaxy, Lupin, Allembic, etc. are standardizing their herbal formulations by chromatography techniques like TLC/HPLC fingerprinting, etc. There are about 7000 firms in the small-scale sector manufacturing traditional medicines with or without standardization. However, none of the pharma has standardized herbal medicines using active compounds as markers linked with confirmation of bioactivity of herbal drugs in experimental animal models.^[15]

Herbal Medicine In Tradition

Prior to the 19th century, plant medicines were administered in their crude form as infusions (herbal teas), tinctures (alcoholic extracts), decoctions (boiled extracts of roots or stem bark), and syrup or applied externally as ointments (poultices, balms and essential oils) and herbal baths.^[3,20] However, from the late 19th century onwards, scientists began the isolation, purification and identification of bioactive principles from medicinal plants. This endeavour led to the discovery of some of the most important drugs that are still widely used in modern medicine. For instance, morphine isolated from opium poppy (*Papaver somniferum*) is a powerful pain reliever and narcotic; quinine isolated from *Cinchona* plant species is an effective antimalarial drug; taxol (isolated from *Taxus brevifolius*) and vincristine (isolated from *Catharanthus roseus*) are highly effective against certain cancers. Also, serpentine (isolated from the root of the Indian plant *Rauwolfia serpentina*) is used for the treatment of hypertension.^[11]

In addition to the biologically-active plant-derived natural products, many other plant bioactive principles had served as lead compounds for the design, synthesis and development of novel drugs. In this contest, some plant derived natural products have been slightly modified to render them more effective or less toxic. For instance, aspirin was developed in 1953 through structural modification of salicylic acid, which was identified as the active principle in a number of plants known for their pain relieving properties. In the same

way, due to the poor bioavailability of the anti-malarial agent artemisinin, which limits its effectiveness, various derivatives have been developed. These include artesunate, artemether, arteether and artemether. The earliest and famous discovery of an effective antimalarial agent-quinine was obtained from *Cinchona officinalis* bark dates back to 1638. In another example, the development of the current and popular oral hypoglycemic agent- metformin was based on the use of goat's rue (*Galega officinalis*) to treat diabetes. The blood glucose lowering property of *G. officinalis* has been attributed to the presence of a guanidine-type of alkaloid- galegine. However, galegine was found to be toxic for human use, and therefore, several structural analogs were synthesized and clinic trials confirmed its efficacy. These efforts culminated to the development and marketing of metformin as an effective anti-diabetic drug.^[12]

Herbal Medicine In Present

The wide spread use of herbal medicine is not restricted to developing countries, as it has been estimated that 70% of all medical doctors in France and German regularly prescribe herbal medicine (Murray and Pizzorno, 2000). The number of patients seeking herbal approaches for therapy is also growing exponentially (Alschuler et al., 1997). With the US Food & Drug Administration (FDA) relaxing guidelines for the sale of herbal supplement (Gottlieb, 2000), the market is booming with herbal products (Brevoort, 1998). As per the available records, the herbal medicine market in 1991 in the countries of the European Union was about \$ 6 billion (may be over \$20 billion now), with Germany account for \$3 billion, France \$ 1.6 billion and Italy \$ 0.6 billion. In 1996, the US herbal medicine market was about \$ 4 billion, which have doubled by now.^[17-19] The Indian herbal drug market is about \$ one billion and the export of herbal crude extract is about \$80 million (Kamboj, 2000).

In the last few decades, a curious thing has happened to botanical medicine. Instead of being killed off by medical science and pharmaceutical chemistry, it has made come back. Herbal medicine has benefited from the objective analysis of the medical science, while fanciful and emotional claims for herbal cures have been thrown out, herbal treatments and plant medicine that works have been acknowledge. And herbal medicine has been found to have some impressive credentials. Developed empirically by trial and error, many herbal treatments were nevertheless remarkably effective (Dwyer and Rattray, 1993). In a recent survey (Cragg et al., 1997) estimated that 39% of all 520 new approved drugs in 1983-1994 were natural products or derived from natural products and 60-80% of antibacterial and anticancer drugs were derived from natural products (Harvey, 1999).

The penicillin that replaced mercury in the treatment of syphilis and put an end to so many of the deadly

epidemics comes from plant mold. Belladonna still provides the chemical used in ophthalmological preparations and in antiseptics used to treat gastrointestinal disorders. *Rauvolfia serpentina* (The Indian snake root) which has active ingredient, reserpine, was the basic constituent of which literally means knowledge (Veda) of life (Ayur) had its beginning in Atharvaveda (Circa 1500-1000 BC). Charak Samhita and Sushruta Samhita are the two most famous treatises of Ayurveda several other were compiled over the centuries such as Bela Samhita, Kashyap Samhita, Agnivesh Tantra, Vagbhata's Ashtang hridaya (600), Madhava Nidan (700 AD) (Lele, 1999). Vegetable products dominated *Indian Meteria Medica* which made extensive use of bark, leaves, flower, fruit, root, tubers and juices. The theory of *rasa*, *vipaka*, *virya* and *prabhava* formed the basis of Ayurveda pharmacology, which made no clear distinction between diet and drug, as both were vital component of treatment (Valiathan, 1998). Charak, Sushruta and Vagbhata described 700 herbal drugs with their properties and clinical effects. Based on clinical effects 50 categories of drug have been described – such as appetizers, digestive stimulant, laxatives, anti-diarrhoea, anti-haemorrhoid, anti-emetic, anti-pyretic, antiinflammatory, anti-pruritic, anti-asthmatic, antiepileptic, anti-helminthic, haemoptietic, haemostatic, analgesic, sedative, promoter of life (Rasyana), promoter of strength, complexion, voice, semen and sperm, breast milk secretion, fracture and wound healing, destroyer of kidney stones etc. (Lele, 1999).

The advent of western medicine in the eighteen century was a set back to the practice of Ayurveda, which suffered considerable neglect at the hands of the colonial administration. After the first success of reserpine, an enormous amount of characterization of medicinal plants was done in many laboratories and University Departments, but the outcome was discouraging because the effort was disorganized, thin spread and nonfocused (Valiathan, 1998). Molecular pharmacology now provides a new interface between Ayurveda and modern medicine. Using modern techniques, various categories of Ayurvedic drug could provide novel molecular probes. It is now possible to explore the mechanism of action of Ayurvedic drugs in terms of current concept of molecular pharmacology.^[19]

Herbal Medicine In Future

Herbal Medicines are becoming increasingly popular among modern consumers. Market Research Future (MRFR) projects that the Global Herbal Medicine Market will capture a CAGR of 5.88% between 2018 and 2023. Whereas it is also anticipated to generate a revenue of around USD 111 billion by the end of the projection period. Demand for plant-based therapeutic systems has continued to increase in recent years. The ingredients for herbal medicines are usually extracted from leaves, seeds, flowers, bark, and plant oil among others, which do not carry any risk of side-effects. Advances in

technology has allowed modernization of herbal medicines, putting them in a better position to compete with mainstream medicinal therapeutics. Market players are focusing on introduction of herbal medicines in the form of capsules, powders, syrups, gel and juice. this, in turn, is boosting the marketability of herbal medicines. Herbal medicines hold an imperative background in countries such as China, Japan and India. These countries are viewed as the pioneers of many herbal medicines that are currently available. It is estimated that nearly three fourths of the herbal drugs used worldwide were discovered following leads from local medicine. According to WHO about 25% of modern medicines are descended from plants first used traditionally. Many others are synthetic analogues built on prototype compounds isolated from plants. Almost, 70% modern medicines in India are derived from natural products.^[15]

The basic uses of plants in medicine will continue in the future, as a source of therapeutic agents, and as raw material base for the extraction of semi-synthetic chemical compounds such as cosmetics, perfumes a better utilization of these complementary systems of medicine. Internationally several pharmacopoeias have provided monographs stating parameter and standard of many herbs and some product made out of these herbs. Several pharmacopoeias like:

- Pharmacopoeia Committee
- Chinese Herbal Pharmacopoeia
- United States Herbal Pharmacopoeia
- British Herbal Pharmacopoeia
- British Herbal Compendium
- Japanese Standards for Herbal Medicine
- The Ayurvedic Pharmacopoeia of India (API)

These Pharmacopoeias' lay down monograph for herbs and herbal products to maintain their quality in their respective nations. Government of India too has brought out Ayurvedic Pharmacopoeia India, which recommends basic quality parameters for eighty common.

In future, Increasing use and fast-growing market of herbal medicines and other herbal healthcare products, in both developing and developed countries of the world, policy-makers, health professionals and the public are increasingly expressing concerns about the safety, efficacy, quality, availability, preservation, and further development problems of these herbal products. Public demand has also grown for evidence on the safety, efficacy and quality of herbal products and TM/CAM practices. In order to allay these concerns and to meet public demands, It provides and aimed to explain different kinds of herbal medicine.

Therapeutic efficiency of various herbal medicine;

- Adverse drug reaction
- Drug interaction
- Stability testing of herbal medicine
- Standardization

Challenges Related To Safety Monitoring Of Herbal Medicines

In recent years, issues relating to increasing use of herbal products in developed countries, dependence of many people living in developing countries on plants as a major source of medicines coupled with absence or weak regulation of herbal medicines in most countries and the occurrence of high-profile safety concerns, have increased awareness of the need to monitor safety and deepen understanding of possible harmful as well as potential benefits associated with the use of herbal medicines (Rodrigues and Barnes, 2013). Adverse events arising from consumption of herbal medicines are attributable to several factors among which include the use of the wrong species of plant by mistake, adulteration of herbal products with other, undeclared medicines, contamination with toxic or hazardous substances, overdosage, misuse of herbal medicines by either healthcare providers or consumers and use of herbal medicines concomitantly with other medicines.

Although, the assessment of the safety of herbal medicines has become an important issue for consumers, regulatory authorities, and healthcare professionals, analysis of adverse events related to the use of these products is much more complex than in the case of conventional pharmaceuticals (WHO, 2005b; Zhou et al., 2013). It is also recognized that evaluation of safety is complicated by factors such as the geographical origin of plant material, different processing techniques, route of administration, and compatibility with other medicines (Zhang et al., 2012). Furthermore, there is lack of the knowledge and/or poor emphasis on 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 (Farah et al., 2000). In order to eliminate the confusion created by the common names, it is necessary to adopt the most commonly used binomial names (including their binomial synonyms) for medicinal plants.^[11-15]

For example, *Artemisia absinthium* L., which contains an active narcotic derivative and capable causing CNS disorders and generalized mental deterioration, has at least 11 different common names. Seven of the common names bear no resemblance to its botanical name. Because common names are mainly used, *Heliotropism europaeum* (heliotrope), which contains potent hepatotoxic pyrrolidine alkaloids, is often confused with *Valerian officinalis* (garden heliotrope), known to contain valepotriates with sedative and muscle relaxant properties. This explains why it is important to provide the exact scientific name of the plant, the plant part used, and the name of the manufacturer when reporting adverse drug reactions of herbal medicines. Therefore, effective monitoring of safety of herbal medicine will require effective collaboration between botanists, phytochemists, pharmacologists, and other major stakeholders.

Therapeutic Scope

Although herbal preparations are widely used as self-medication for acute conditions, practitioners of herbal medicine tend to concentrate on treating chronic conditions. A typical caseload might include patients with asthma, eczema, premenstrual syndrome, rheumatoid arthritis, migraine, menopausal symptoms, chronic fatigue syndrome, and irritable bowel syndrome. Herbalists do not tend to treat acute mental or musculoskeletal disorders.

The aim of herbal treatment is usually to produce persisting improvements in well-being. Practitioners often talk in terms of trying to treat the "underlying cause" of disease and may prescribe herbs aimed at correcting patterns of dysfunction rather than targeting the presenting symptoms. Many practitioners do, however, prescribe symptomatically as well, such as giving a remedy to aid sleep in a patient with chronic pain.^[14-16]

Adverse Effect Of Some Herbal Product

In most countries, herbal medicines and related products are introduced into the market without any mandatory safety or toxicological evaluation. Many of these countries also lack effective machinery to regulate manufacturing practices and quality standards. These herbal products are continuously made available to consumers without prescription in most cases and the potential hazards in an inferior product are hardly recognized (Bandaranayake, 2006).

It is imperative to emphasize the amazing rate at which intrigue and utilization of home grown meds is extending. Over the previous decade, the utilization of home grown meds speaks to roughly 40% of all social insurance administrations conveyed in China while the level of the populace which has utilized home grown drugs at any rate once in Australia, Canada, USA, Belgium, and France is evaluated at 48%, 70%, 42%, 38%, and 75%, individually (Foster *et al.*, 2000; WHO, 2002b). Regardless of the positive view of patients on the utilization of home grown prescriptions and affirmed fulfillment with helpful results combined with their failure with customary allopathic or standard meds as far as adequacy or potentially security (Huxtable, 1990; Abbot and Ernst, 1997), the issue of wellbeing of natural cures keeps on staying a significant issue of concern.

The general observation that home grown cures or medications are extremely protected and without antagonistic impacts isn't just false, yet in addition deluding. Herbs have been demonstrated to be fit for creating a wide scope of unfortunate or unfavorable responses some of which are equipped for causing genuine wounds, dangerous conditions, and even passing. Various and evident instances of harming have been accounted for in the writing (Vanherweghem and Degaute, 1998; Cosyns *et al.*, 1999; Ernst, 2002).

The poisonousness assessment of the polyherbal equation, Yoyo "Chemical" Bitters, directed as of late in our lab (Ekor *et al.*, 2010), was incited by an unpublished case report of a youthful male grown-up who had been on self-medicine with this natural item and was along these lines admitted to the emergency clinic because of liver disappointment. Yoyo "Chemical" Bitters is one of the home grown cures that is generally promoted in the different Nigerian media and as such has picked up so much open acknowledgment after some time and keeps on appreciating expanded support among purchasers, particularly in the south western piece of the nation. Our examination uncovered that this home grown equation was equipped for raising plasma levels of liver chemicals and actuating hypokalemia following 30 days organization in rodents. From our perception, the potassium misfortune (which is fit for inclining to perilous arrhythmias) was a more serious hazard related with this herb during this sub-intense introduction or harmfulness study. Before this investigation, we had assessed the security of "super B blood purifier" and "super B seven keys to control" blends in trial model longer than 10 years back (John *et al.*, 1997). These home grown blends were advertised by an enlisted Nigerian organization which developed restorative plants and fabricated therapeutic natural arrangements.

The home grown blood tonics were very much disparaged by basic people who guarantee their viability as per the producer's specification that "they are sheltered, invigorate and wash down the blood and assortment of disease." We got the natural constituents (*Entandrophragma utile* and *Anacardium occidentale*) and explored the individual plant remove just as the home grown tonics produced using them. Albeit, all the concentrates and tonics demonstrated safe during intense poisonousness study, ceaseless harmfulness testing uncovered splenic amplification in 10% of mice that got *E. utile* or both of the two tonics and one instance of lung tumor (John *et al.*, 1997). As of late, Auerbach *et al.* (2012) revealed a relationship between customary home grown medication use and the improvement of liver fibrosis among study members in Uganda. Various Chinese home grown drugs and other home grown medications from various pieces of the world have likewise been ensnared in instances of harming.

A significant number of them have been appeared to contain poisonous mixes which are equipped for responding with cell macromolecules including DNA, causing cell poisonousness, as well as genotoxicity (Rietjens *et al.*, 2005). With the end goal of quickness and different evident requirements, unfriendly responses of just a couple of generally utilized natural drugs are depicted underneath. Home grown items are not tried with the logical thoroughness expected of regular medications, and they are not dependent upon the endorsement procedure of the U.S. Food and Drug Administration (FDA). Home grown items in this manner can't be advertised for the analysis, treatment, fix

or avoidance of sickness. Regardless, the Dietary Supplement Health and Education Act of 1994 permits these items to be marked with proclamations clarifying their implied impact on the structure or capacity of the human body (e.g., mitigation of weakness) or their job in advancing general prosperity (e.g., improvement of state of mind or mentation).² Analysis of a portion of the putative impacts of home grown items shows that they once in a while intently look like cases of clinical viability for different sicknesses or conditions. In contrast to ordinary medications, natural items are not managed for immaculateness and potency.² Thus, a portion of the antagonistic impacts and medication

communications revealed for home grown items could be brought about by polluting influences (e.g., allergens, dust and spores) or clump to-cluster changeability. Likewise, the strength of a home grown item may build the chance of unfriendly impacts.^[17-18]

Because physicians are likely to encounter patients who are using herbal remedies, they need to be aware of the purported effects of these products. They also need to be cognizant of the adverse effects of herbal remedies (*Table 1*) and the possibility of deleterious drug interactions (*Table 2*)

Table 1:

Herbal Product	Side effect
Ginkgo biloba	Bleeding
St. John's wort	Gastrointestinal disturbances, allergic reactions, fatigue, dizziness, confusion, dry mouth, photosensitivity
Ephedra (ma huang)	Hypertension, insomnia, arrhythmia, nervousness, tremor, headache, seizure, cerebrovascular event, myocardial infarction, kidney stones
Kava	Sedation, oral and lingual dyskinesia, torticollis, oculogyric crisis, exacerbation of Parkinson's disease, painful twisting movements of the trunk, rash

Table 2: Drug Interactions with Herbal Products.

Herbal product	Interacting Drug
Ginkgo biloba	Aspirin, warfarin (Coumadin), ticlopidine (Ticlid), clopidogrel (Plavix), dipyridamole (Persantine)
St. John's wort	Antidepressant
Ephedra	Caffeine, decongestants, stimulants
Ginseng	Warfarin
Kava	Sedatives, sleeping pills, antipsychotics, alcohol

CONCLUSION

Plants, herbs, and ethnobotanicals have been utilized since the beginning of mankind and are as yet utilized all through the world for wellbeing advancement and treatment of malady. Plants and natural sources structure the premise of the present current medication and contribute to a great extent to the business tranquilize arrangements fabricated today. About 25% of medications recommended overall are gotten from plants. All things considered, herbs, as opposed to drugs, are frequently utilized in social insurance. For a few, home grown medication is their favored strategy for treatment. For other people, herbs are utilized as subordinate treatment to regular pharmaceuticals. In any case, in many creating social orders, conventional medication of which home grown medication is a center part is the main arrangement of medicinal services accessible or reasonable. Despite the explanation, those utilizing natural meds ought to be guaranteed that the items they are purchasing are protected and contain what they should, regardless of whether this is a specific herb or a specific measure of a particular home grown segment. Customers ought to likewise be given science-put together data with respect to measurement, contraindications, and adequacy. To accomplish this, worldwide harmonization of enactment is expected to manage the capable creation and promoting of home grown prescriptions. On the off chance that adequate

logical proof of advantage is accessible for a herb, at that point such enactment ought to take into consideration this to be utilized suitably to advance the utilization of that herb with the goal that these advantages can be acknowledged for the advancement of general wellbeing and the treatment of infection.

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