



Modernization of Traditional Medicine: An Overview

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Introduction

Another challenge of research in traditional medicinal practice is the lack of consistency and clarity in the terminology used by the authors to describe various beliefs and practices. Often the term traditional medicine is loosely applied to a variety of diverse activities that are not uniformly acknowledged among indigenous practitioners and their clients. It is useful exercise to discuss the variety of definitions that traditional medicine is, or is not accorded the latter being the case in most academic and non academic journals.

The World Health Organization estimates that the majority of the population of most non-industrial countries still relies on traditional forms of medicine for everyday health care. In many countries up to 80-90% of the populations are in this category. Medicinal plants and, to a lesser but important extent, animal products, form the material medica of these traditions.

Traditional health systems are based in world views or cosmologies that take into account mental, social, spiritual, physical and ecological dimensions of health and well being. Central importance on the concept of balance within the individual and between the individual, society and nature Imbalance arises with the breaking of the inter connectedness of life- and results in discomfort and disease.

Traditional health systems have organized frameworks for classifying plants, animals, landscapes and climatic conditions in relation to their effects on health and disease. These taxonomies have much in common with one another and represent a culturally relevant empirical framework for assessing medicinal plant biodiversity. Such taxonomies may diverge significantly with western classificatory frameworks and assumptions. This is of importance when determining prior art as it pertains to intellectual property law. Food and medicine are often viewed interchangeably. Food is medicine. Diet is the basis of health. Revitalization movements are drawing on traditional medical knowledge to develop integrated modern and traditional health care projects.

Thesemovements and other groups have drawn attention to the shrinking availability of medicinal plants to supply the burgeoning need for herbal medicines in non-western societies and in the industrial countries. Conservation and horticulture programmes are emerging as vital components of the revitalization of local health traditions.

There is a need for coordinated effort by all engaged in medical plant use to generate new policies, mechanisms and resource flows to preserve the biodiversity used in caring for the health of the majority of the world's population Of all the literature reviewed, only a handful sources offered general descriptions of characteristics of traditional medicine and rarely defined the term. When reviewing literature, it is important to consider two points:

1. Term "traditional" is a British colonial concept, disliked by many Indigenous Groups.
2. Academics and institutional scholars introduced the term Indigenous People for North America. Most indigenous people would have relied on a complex set of medical practice and beliefs referred as "Medicine". Only the Europeans, with a mandate to separate the prioritize beliefs that were not tier own, utilized the term "Traditional"

LITERATURE REVIEW

Veervikramaditya Yadav et al. (2012) India has a rich heritage of traditional medicine and the traditional health care system have been flourishing for many centuries. traditional medicine, defined by the WHO as "medical knowledge systems that developed over generations within various societies before the era of modern medicine, including the health practices, approaches, knowledge and beliefs incorporating plant, animal and mineral-based medicines, spiritual therapies, manual techniques and exercises, applied singularly or in



combination to treat, diagnose and prevent illnesses or maintain well-being “is used globally and has rapidly growing economic importance. In developing countries, traditional medicine is often the only accessible and affordable treatment available. In Latin America, the WHO regional office for the Americas reports that 71% of the population in Chile and 40% of the population in Colombia has used traditional medicine. In many Asian countries traditional medicine is widely used, even though western medicine is often readily available. In Japan, 60-70% of allopathic doctors prescribe traditional medicines for their patients. In the US the number of visits to providers of complementary alternative medicine now exceeds by far the number of visits to all primary care physicians.

Ichiro Arai (2021) Japanese Kampo medicine is a traditional medicine with roots in ancient Chinese medicine. Because traditional physicians had been abolished in Japan, the present mainstream of Kampo treatment is that physicians who learned modern Western medicine prescribe Kampo extract products based on Western medical diagnosis. This situation is different from that in other east Asian countries, and the physicians require scientific clinical evidence. Clinical studies were searched from literature databases, clinical trial registry sites, and “Evidence Reports of Kampo Treatment (EKAT)” published by the Japan Society for Oriental Medicine. At the approval of Kampo products, scientific clinical evidence was not required because they have a long-period experience as a decoction. However, in the 1990s, Kampo products became a subject for national reevaluation; double-blind and placebo-controlled clinical trials. At the time, a methodological foundation for conducting clinical assessments of Kampo medicines was established. From 2000 onwards, with the evidence-based medicine era, the field of Kampo medicine also saw many randomized controlled trials, and their evidence was collected and published as EKAT. In the 2010s, post-marketing clinical trials of Kampo products also had to be conducted in this environment due to the need for ethical and scientific assurance. Currently, there are numerous clinical trials of Kampo products being conducted with high-grade trial designs. The situation of Kampo clinical studies reflects the unique history and position of Kampo medical system and Kampo products in Japan.

GetnetYimer et al. (2021) there has been high interest in the use of traditional medicines for COVID-19 from early in the course of the pandemic. Significant advances in the science of ethnopharmacology have helped to introduce chemical entities identified from natural sources into modern medicine. However, the wider integration of natural products into the modern drug discovery process will require enhanced collaboration amongst the pharmaceutical industry, academic research units, regulatory bodies, ethics review committees and local, regional, continental and international organizations. Revisiting this topic holds promise of benefit for both the current and future pandemics.

MEANING OF TRADITIONAL

A few academic articles attempted to "operationilize" the term "Traditional" in their empirical studies and sited a number of definitions. The authors tended to divide their discussion of medical practices into two time period, pre - and - post contact. The term "Traditional Medicine" has been therefore conceptualized in several ways. The report of Royal Commission on Aboriginal People (RACP, 1996) defines traditional healing; Traditional healing has been defined as "practices designed to promote mental, physical and spiritual well beings that are based on beliefs which go back to time before the spread of western, scientific, bio-medicine. When aboriginal people talk about their traditional healing they include a wide range of activities, from physical cure using herbal medicine and other remedies, to the promotion psychological and spiritual wellbeing using ceremony, counseling and the accumulated wisdom of elders. (RACP,1996, Vol.3,348)

Within the literature reviewed, different aspects of traditional medicine were discussed. A common term used by anthropologists is "Shaman" or "Shamanic Healing".

According to William Lyon's Encyclopedia of Native American Healing



This is first scholarly work to survey the mystery powers of Native American Shaman with respect to healing. Its long overdue, in shifting through this evidence one sees that Shamanism has very definite cross-cultural patterns. That is, it is an organized system with definite rules of operation, because our understanding of Shamanic healing is rudimentary at best..

Lyon situates shamanic healing as "irrational" but effective, and he is concerned with rituals where as other text are focused on Botany. Sometimes the discussion focuses on ritual practices on other time the pharmacology and botanical knowledge. Traditional medicine (TRM) has been defined as the sum total of the knowledge, skills, and practices based on the theories, beliefs, and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health, as well as in the prevention, diagnosis, improvement, or treatment of physical and mental illness. According to a 1983 World Health Organization (WHO) estimate, a majority of the population in developing countries depend on traditional and herbal medicines as their primary source of health care.² Over the past decade, there has been an increased global interest in traditional systems of medicine and herbal medicinal products not only in response to the health care needs of developing countries, where access to modern medicine is rare or nonexistent, but also in affluent nations, where the use of herbal medicines and acupuncture is now readily accepted by large segments of the population. In developed countries, nonconventional medical modalities, also designated as complementary and alternative medicine (CAM), are often used concomitantly with conventional medicine in medical treatments, including cancer therapy. The popularity of CAM in the USA is reflected in a survey, which showed its use increased from 34% in 1990 to 42% of adults in 1997.³ The same survey showed that the American consumers spent \$27 billion on alternative treatments, and an estimated \$5.1 billion on herbal medicines in 1997.³ In the same year, the global market for herbal products was estimated to be approximately \$20 billion.^{4,5} With the increased and widespread use of multiple medical modalities in recent years, coupled with the need to provide health care to all the people in both the developing and developed countries, there arose a new modality known as integrated or integrative medicine. Integrated medicine has been defined as practicing medicine in a way that selectively incorporates elements of CAM into comprehensive treatment plans alongside orthodox methods of diagnosis and treatment. It can also mean the incorporation of TRM into the general health service systems, in which both orthodox and traditional systems of medical practices are recognized. In developed countries such as the United States of America, integrative medicine is meant to be the former. The rational integration of herbal medicine into modern medical practices, including cancer therapy, should be accomplished on a scientific basis, taking into account the interrelated issues of quality, safety, and efficacy.

OPERATIONS USING TO PRODUCE TRADITIONAL MEDICINE

Quality:

A current impediment to the integration of herbal medicines into modern medical practices is the quality of these products, which can affect their efficacy and/or safety. Herbal product quality ranges from very high to very low. A recent study on selected commercial ginseng products prepared from *Panax ginseng* CA Meyer and *P. quinquefolius* L. (Araliaceae) and eleuthero, *Eleutherococcus senticosus* Maxim (Araliaceae), marketed as botanical supplements in North America in the 1995-1998 period, showed that the ginsenoside contents of 232 *Panax ginseng* and 81 *Panax quinquefolius* products ranged from 0.00 to 13.54% and 0.009% to 8.00%, respectively, and that approximately 26% of these products did not meet label claims. The eleutherosides B and E content of eleuthero root powder and other formulated extract products also showed large variation. Studies on the quality of St. John's wort (*Hypericum perforatum* L. [Hypericaceae]) products showed hypericin content ranging from 22% to 140% of label claim, when analyzed using an official spectrophotometric procedure,¹⁰ and from 47% to 165% employing an HPLC method.



Similarly, silymarin from milk thistle (*Silybummarianum* [L.] Gaertn [Asteraceae]) was detected at 58% to 116% of the label claim. Aside from the variation in the chemical content of herbal medicine, there can also be pharmaceutical quality differences in these products. In an in vitro dissolution and bioequivalent study of 9 silymarin products, 3 yielded 100%, 50%, and 0% of silymarin after 1 hour under official dissolution study conditions. A bioequivalency study of 3 of these products showed that the bioavailability of 1 product was 2-fold greater than the other 2 preparations. Botanicals and botanical product quality and quality variations are due to a number of factors, ranging from intrinsic and extrinsic influences to regulatory practices.

Intrinsic and Extrinsic Factors:

It is well established that intrinsic and extrinsic factors including species differences, organ specificity, diurnal and seasonal variations, environment, field collection and cultivation methods, contamination, substitution, adulteration, and processing and manufacturing practices greatly affect botanical quality. Intrinsic factors include botanicals are derived from dynamic living organisms, each of which is capable of being slightly different in its physical and chemical characters due to genetic influence. This phenomenon has been well documented. A case in point concerns the accumulation of hypericin in *Hypericum perforatum* (St. John's wort [SJW]), which showed that narrow leafed populations have greater concentrations than the broader leafed variety although the direct therapeutic significance of this particular variation is unclear, as hypericin, although pharmacologically active, is not considered a significant pharmacologic agent in the antidepressive use of SJW; the primary reason many commercial extracts are standardized to hypericin content is that the hypericin acts as a "marker compound" for the purposes of quality control. In general, both qualitative and quantitative variations of phytochemicals are greater in wild than in domesticated populations of the same species. Recent studies on the content of artemisinin, an antimalarial agent in *Artemisia annua* L. (Asteraceae); on michellamine B, a compound with in vitro anti-HIV activity, in *Ancistrocladus korupensis* DW Thomas & RE Gereau (Ancistrocladaceae); and on the essential oil composition of *Ocimum basilicum* L. (Lamiaceae) showed greater content variations in the wild than in cultivated populations. Also, the secondary chemical constituents of medicinal plants differ from species to species as demonstrated by the presence of structurally different alkylamides in the roots of *Echinacea angustifolia* D.C., and *E. purpurea* (L.) Moench. (Asteraceae), and by their total absence in *E. pallida* (Nutt.) Nutt. Thus, to insure chemical uniformity, it is necessary that the starting plant material for the manufacture of botanicals be accurately identified and authenticated by their scientific names (Latin binomial). The use of common names is inadequate as they often refer to more than 1 species. In regard to plant organ specificity, the site of biosynthesis and the site of accumulation and storage are normally different. Chemical biosynthesis usually takes place in the leaves, and phytochemicals are then transported through the stems to the roots for storage, with the chemical profiles in these organs being different from each other. Accumulation and storage can also take place in the leaves, but to a much lower extent, and very infrequently in the stems. An example of site-specific accumulation, as well as species specificity, is that of the compounds considered responsible for the immunostimulant effect of *Echinacea* species. These compounds encompass 5 groups of chemicals: caffeic acid derivatives, alkylamides, polyacetylenes (ketodialkenes and ketodialkynes), glycoproteins and polysaccharides. As indicated above, alkylamides are found in the roots of *Echinacea angustifolia* and *E. purpurea*, but they are structurally different and are totally absent in *E. pallida* roots. Polyacetylenes, on the other hand, are present abundantly in the roots of *E. pallida*, but absent in *E. angustifolia* and *E. purpurea* roots. Although the glycoproteins and polysaccharides are present in the fresh juices and aerial parts of all 3 species, they occur only in minute quantities in the roots. Diurnal and seasonal variations are other intrinsic factors affecting chemical accumulation in both wild and cultivated plants. Depending on the plant, the accumulation of chemical constituents can occur at any time during the various



stages of their growth. In a majority of cases, maximum chemical accumulation occurs at the time of flowering, followed by a decline beginning at the fruiting stage. The time of harvest or field collection can thus influence the quality of the final herbal product. There are many extrinsic factors affecting qualities of medicinal plants. It has been well established that factors such as soil, light, water, temperature, and nutrients can, and do, affect phytochemical accumulation in plants, as exemplified by alkaloid concentrations of 1.3% and 0.3%, respectively, in *Atropa belladonna* L. (Solanaceae) grown in the Caucasus and those cultivated in Sweden; essential oil content in shade-grown (1.09%) and normal light-grown (1.43%) *Mentha x piperita* L. (Lamiaceae) plants; and by the silymarin content being highest in the fruits of plants grown under 60% water field capacity (1.39%) and nitrogen level of 100 kg (1.46%) and 150 kg (1.42%) per feddan. The methods employed in the field collection from the wild, as well as in the commercial cultivation, harvest, post-harvest processing, shipping and storage can also influence the physical appearance and chemical quality of the botanical source materials. Contamination by microbial and chemical agents (pesticides, herbicides, heavy metals) as well as by insect, animal, animal parts, and animal excreta during any of the stages of source plant material production can lead to lower quality and/or unsafe materials. Botanicals collected in the wild often include nontargeted species either by accidental substitution or by intentional adulteration. However, adulteration and/or substitution of cultivated botanicals have also been documented. Substitution of *Periplocasepium* Bunge (Asclepiadaceae) for eleuthero (*Eleutherococcus* senticosus) has been widely documented and is regarded as responsible for the “hairy baby” case involving maternal/neonatal androgenization. More recently, plantain (*Plantago ovata* Forskal. [Plantaginaceae]) was found to be contaminated by *Digitalis lanata* Ehr. (Solanceae) at the supplier end.²⁶ Other examples of adulteration/substitution of botanicals include *Echinacea angustifolia* roots being contaminated with *E. atrorubens* Nutt., *E. pallida*, *E. paradoxa* Britt., *E. simulata* RL McGregor, *Lespedeza capitata* Michx. (Fabaceae) and *Parthenium integrifolium* L. (Asteraceae); and ginseng being adulterated with *Mirabilis jalapa* L. (Nyctaginaceae), *Phytolacca acinosa* Roxb. (Phytolaccaeae), *Platycodon grandiflorum* A.DC. (Campanulaceae), and *Talinum paniculatum* Gaertn. (Portulaccaeae). Adulteration of herbal medicine with synthetic drugs represents another problem in product quality. Foremost among these herbal mixtures are multicomponent Chinese or Ayurvedic herbal remedies. Chemical analysis of some arthritis remedies have led to the finding that synthetic anti-inflammatory drugs such as phenylbutazone, indomethacin and/or corticoid steroids have been added. In a recent study of chemical adulteration of traditional medicine in Taiwan, 23.7 % (618 of 2609) of samples collected by 8 major hospitals were found to contain 1 or more synthetic therapeutic agents, including caffeine, acetaminophen, indomethacin, hydrochlorothiazide, prednisolone, ethoxybenzamide, phenylbutazone, betamethasone, theophylline, dexamethasone, diazepam, buccetin, chlorpheniramine maleate, prednisone, oxyphenbutazone, diclofenac sodium, ibuprofen, cortisone, ketoprofen, phenobarbital, hydrocortisone acetate, niflumic acid, triamcinolone, diethylpropion, mefenamic acid, piroxicam, and salicylamide. The most frequent adulterants were caffeine, acetaminophen, indomethacin, hydrochlorothiazide, prednisone, and chlorzoxazone in 213, 167, 152, 127, 91, and 87 cases, respectively. Heavy metal contamination can occur at the cultivation, post-harvest treatment, or product manufacturing stages. Lead and thallium contamination has been reported in multicomponent herbal mixtures. Besides the unintentional in-process adulteration, it is well established that Ayurvedic and traditional Chinese medicine sometimes employ complex mixtures of plant, animal, and mineral substances, including heavy metals. It is not uncommon to find appreciable quantities of heavy metals such as lead, mercury, cadmium, arsenic, and gold in certain formulations. Cases of lead, thallium, mercury, arsenic, gold, and cadmium poisoning from the consumption of such products have been documented.

Regulatory Influence:



Botanical product quality can also be influenced by regulatory status, which varies from country to country.³⁰ In the European community, herbal medicines are regulated as medicine and subject to mandated standards, whereas in the United States, very few botanical products are available as prescription or over-the-counter (OTC) drugs. The majority of botanicals are marketed in the United States as dietary supplements under the provisions of the Dietary Supplement Health and Education Act (DSHEA) of 1994. By law, strict good manufacturing practices (GMPs) are required in the production of prescription and OTC drugs; regulatory provisions under DSHEA provide little assurance of identity, quality or purity for botanical dietary supplements, which are manufactured according to requirements for conventional food products (DSHEA stipulates that supplements are food and not drugs). Thus, botanical dietary supplement products have not yet been subjected to mandated quality assurance (QA)/quality control (QC) standards as in the case of prescription and OTC drugs.³¹ New GMPs are under development by the FDA that will help ensure a higher standard of GMP for supplements than for food. Elsewhere in the world, national policies exist in most of Asia and Southeast Asia. In some countries, these products are totally unregulated. Consequently, product quality may differ from country to country, and within the same country, from product brand to product brand, and even from lot to lot within the same brand.

QA and QC:

For effective integration of herbal medicine into modern therapeutic practices, the quality of botanicals must be assured by control measures taken from the point of medicinal plant procurement, whether by field collection from the wild or by cultivation, under good agricultural practice (GAP) conditions, because the quality of the finished botanical products is obviously directly related to the quality of the raw materials. Whether field collected or produced by cultivation, authentication of plant species by a taxonomic botanist is paramount to insure that the correct source material is acquired. It is essential that the plant materials are identified by their binomial Latin names, and a description of the macroscopic, microscopic, and organoleptic (sensory) characters be provided along with herbarium specimens, drawings or photographs. In the field collection of medicinal plants, care must be exercised to avoid the acquisition of nontargeted species, and to free the targeted source material of undesirable plant parts, soil, rock, insects, animals, animal excreta, and other contaminants. Post-collection treatments should mirror those accorded cultivated plant materials. Due to their genetic and chemical content variations, the site and date should be recorded for each collection. The production of raw materials by cultivation should normally lead to more uniform botanical products due to greater genetic uniformity. The production of quality raw materials can only be assured by employing GAPs such as those carried out in the commercial cultivation of *Ginkgo biloba* L. (Ginkgoaceae) and of Echinacea species. The harvested source materials must be processed to produce the finished products under GMPs. The World Health Organization has published general guidelines for the GMP production of botanical products. GMP procedures employed for the manufacture of botanical products involve, at the raw material production end, botanical taxonomic identification to assure species identification; at the processing and manufacturing stage, macroscopic, microscopic, organoleptic analysis and analytical procedures similar to those employed for the manufacture of conventional drugs to assure quality and purity by appropriate protocols. Post-marketing quality assurance surveillance by regulatory agencies will ensure the marketing of quality products for use in integrative medicine.

Safety:

Herbal medicines are generally safe when properly used at normal therapeutic doses. Adverse effects consist primarily of mild and infrequent gastrointestinal or dermatological reactions.⁴⁰ A study monitoring the adverse effects of thousands of users of ginkgo, St. John's wort, and kava showed that less than 3% of patients encountered mild side effects. *Digitalis* species, *Rauvolfiaserpentina* (L.) Benth. ex Kurz., (Apocynaceae) *Atropa*



belladonna, and *Strychnos nuxvomica* L. (Strychnaceae), among others, are toxic plants that are useful therapeutic agents that can be employed safely when administered in proper doses. On the other hand, there are medicinal plants that persistently evoke moderate to severe reactions, and should not be employed in any medical therapy. Plants including species of *Senecio*, *Crotalaria*, and *Symphytum*, which contain pyrrolizidine alkaloids having an unsaturated 1,2-double bond in the pyrrolizidine ring, should be avoided due to the hepatotoxic effect of these compounds. On the other hand, *Echinacea* species that contain non-hepatotoxic saturated pyrrolizidine alkaloids are safe for consumption. *Aristolochia* species are another example of plants containing toxic chemical constituents that should not be used medically. Aristolochic acid I, found in all species of *Aristolochia* investigated to-date, has been identified as a potent carcinogen and nephrotoxin. Renal failures, nephritis, and urinary tract neoplasm have been associated with use of Chinese and Kampo herbal medicine preparations that contain *Aristolochia* species. In recent years, it has become increasingly apparent that even therapeutically safe herbs can manifest toxic effects as a result of herb-drug interaction, when administered concomitantly with synthetic pharmaceutical agents. For example, St. John's wort (*Hypericum perforatum*), an effective botanical used in the management of mild to moderate depression, has been found to increase the effects of MAO inhibitors or serotonin re-uptake inhibitors; reduce the blood levels, hence the pharmacological effects, of anticonvulsants (carbamazepine, phenobarbitone), anticoagulants (warfarin, phenprocoumon), oral contraceptives, theophylline, digoxin, cyclosporin, HIV reverse transcriptase inhibitors (nevirapine, efavirenz), and protease inhibitors (indinavir); increase photosensitivity when given with other photosensitizing drugs; and prolong narcotic-induced sleeping time. Such interactions must be considered when evaluating herbal preparations for integration into modern medical practices. Although by no means comprehensive, a series of recent reference books on popular medicinal plants have begun to address this issue. In addition to the toxic effects/interactions of intrinsic chemical constituents, adulteration of herbal medicine with synthetic drugs or contamination with heavy metals and microbes affect the safety of these products in therapy. Avoidance of these products in integrative medicine is recommended. Where safety information is lacking on any medicinal plants being contemplated for integrative medicine use, relevant research must be performed prior to its employment. The WHO has established guidelines for such studies. Adverse events, including drug-herb interaction must also be monitored to promote a safe integration of efficacious herbal medicine into conventional medical practices.

Efficacy:

It has been estimated that currently more than 1500 herbal products are available in the US market alone with little or no scientific documentation of either their safety or efficacy. For a valid scientific-based integration, pharmacological and clinical studies, especially, must be conducted on those plants lacking such data. Current clinical studies on herbal medicine have been carried out under a variety of conditions, including single case, open, blind, double blind, randomized, and cross-over studies. Ideally, all clinical studies should be conducted by the double-blind, randomized, cross-over method. However, this may not be feasible for a variety of reasons. Nevertheless, the most suitable method for a given herbal medicine should be used to assess its efficacy to validate its usefulness as an integrated therapeutic agent. In recent years, the effectiveness of a number of herbal medicines have been clinically validated, including garlic bulb [*Allium sativum* L. (Liliaceae)], andro-graphis [*Andrographis paniculata* (Burm. f) Nees (Acanthaceae)], senna leaf and fruit [*Cassia senna* L. (Fabaceae)], Gotu kola or Centellae herb [*Centella asiatica* (L.) Urban (Apiaceae)], black cohosh root [*Cimicifuga racemosa* (L.) Nutt. (Ranunculaceae)], turmeric or curcuma rhizome [*Curcuma longa* L. (Zingiberaceae)], *Echinacea* root (*Echinacea augustifolia* and *E. pallida*), *Echinacea* herb (*E. purpurea*), ginkgo leaf (*Ginkgo biloba*), St. John's wort (*Hypericum perforatum*), ginseng root (*Panax ginseng*), kava kava [*Piper methysticum* Forst. (Piperaceae)], plantago seed and hystk (*Plantago* species), rauwolfia root



(Rauvolfiaserpentina), frangula bark [Rhamnusfrangula L. (Rhamnaceae)], cascara (Rhamnuspurshiana D.C.), rhubarb root [Rheum officinaleBaill./R. palmatum L. (Polygonaceae)], saw palmetto [Serenoarepens (Bartr.) Small (Arecaceae)], milk thistle (Silybummarianum), valerian [Valeriana officinalis L. (Valerianaceae)], and ginger [Zingiberofficinale Roscoe (Zingiberaceae)], among others. Such clinical validations represent a most important step in the scientific integration of herbal preparations into modern therapy. Unfortunately, these represent but a minuscule proportion of the number of evidence based studies needed for the clinician to use in integrative medicine. In order to answer the questions of “does it work?”, “how does it work?”, “is it safe?”, “will it interact with conventional pharmaceuticals?”, in vivo pharmacological and clinical studies must be accorded to as many botanical products as possible. Such studies have been the subjects of much discussion, and the WHO has published a number of guidelines for pharmacological and clinical evaluation of herbal and traditional medicine. In clinical studies, be they open, single blind, double blind, randomized or crossover, the clinician must be aware that standards of quality for botanical products do not exist in many countries, including the United States. Therefore, the products being evaluated must be accurately defined and the sources identified. Otherwise, the data being published will be invalid and/or misleading

1.4 SPECIALIZED FIELDS OF PRACTICE WITHIN TRADITIONAL MEDICINE

- 1) **Spiritualistic:** - A Practice that focuses on the spirit health of an individual and intervenes on his/her behalf. Diagnosis often includes lifestyle changes of individual or family and offering to various benevolent spirits. Also, this person often serves as a counselor, mentor or teacher to individuals or families. Their primary focus is on spirit well being of people. Their knowledge of culture is extensive and highly respected by the community, and they often carry titles of honor such as "faith keeper, holy person or priest".
- 2) **Herbalist:-** A practice that emphasizes botanical and pharmacological knowledge of the indigenous plant and fauna. Often these individuals work closely with other indigenous doctors and assist in providing remedies for individual for whom they diagnose. Their practice can be highly specialized in one field, such as remedies for snake bite or as diverse as illness themselves.
- 3) **Diagnosis Specialist:** - A practice that often involve communication with spirits, the supernatural and physical entities that assist in diagnosis. Diagnostician are often the "seer" of communication through ceremony who identify the ailments, remedies or ceremonies that are required to restore good spiritual, emotional and physical health and well beings. Often they work as referrals to other specialists.
- 4) **Medicine Man I Woman:-** A practice that may often possess all the above gifts and more. Their work is usually engaged in ritual, ceremonial activity and prayer. In some societies they are identified as "medicine man I woman" because they possess sacred bundles, sacred pipes, sacred masks and the right to rituals, songs and medicine that have been inherited from their parents, grand parents or that they earned through apprenticeship with a respected medicine man or woman. Depending on their nation, they are also the conductor of the community ceremonies. It is normative for these individuals to sacrifice their daily lives to rituals, prayers and healing.
- 5) **Healer:** - A gifted individual who may heal in a variety of ways, including all of the above and or a "gift" of touch, or energy work- meaning that rituals are not always needed. Healers can be ritualistic, but also may have an ability to use a variety of therapies to heal people spiritually, emotionally or physically.
- 6) **Midwife:** - Often these practitioners are women with specialized knowledge of prenatal care, birth assistance and aftercare. The midwife may employ the use of massage, diet medicine and rituals and counseling. Traditional midwifery exists



worldwide and involves a variety of skills, often biophysical and ritual activities as well.

CONCLUSION

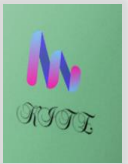
These are some facts that are directly impacting traditional medicine in any sense they can be understood in.

1. A policy of discretion and restraint that serves to preserve the tradition.
2. Belief in materia- medica.
3. Depletion of the earth's natural resources The practise of traditional medicine is a well guarded secret, and each healer takes great satisfaction in the special therapeutic expertise that they possess.

The more information that is kept under wraps, the more varied it is, but the development of medicine is stunted as a result of the secrecy. Others are discouraged and prevented from gaining the information altogether because of the restrictions placed on attaining it. Both of these precautionary measures appear to be detrimental to the practise of traditional medicine rather than beneficial at this critical juncture, when traditional medicine has arrived at a potentially dangerous crossroads. By informing practitioners of the state of affairs around their tradition at the present time, it is feasible that the obstacle of secrecy can be conquered. On the other side, this secrecy may be beneficial to the continuation of traditional medicine. Patients frequently have the misconception that these treatments come from an unexplored field of medicine, which leads them to assume that they may contain "jackpot" remedies. About the limitations imposed by conventional norms, on the other hand, it might not be a good idea to mess with these ideas because they might have been established for reasons that are unknown to scientific research. Every informant was found to offer some medical application of plants, and the tribal medicine man and old people possess substantial knowledge about the therapeutic characteristics of locally accessible plants. If treatment with one herb does not bring about the desired results, treatment with another herb may be attempted.

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