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Introduction

This report will showcase, discuss, and analyse findings of complementary therapies in general while focusing on Phytomedicine as a complementary therapy, detailing the uses, principles, regulations and current uses compared to traditional allopathic methods.

Overview

Complementary and alternative medicines (CAMs) are a broad and complex combination of interventions, philosophies, approaches, and therapies that treat the mind, body, and spirit with a holistic approach (Lunstroth, 2006).

Complementary therapies are used alongside allopathic or traditional treatments as adjuvants (Martínez Sánchez et al., 2014).

Traditional or allopathic Medicine bases its treatment mainly on the ailment that afflicts the patient. It focuses more on the disease and not so much on the patient. In this sense, it is considered to be mechanistic and regionalist (it focuses on the anatomical region of the conflict). Faced with a specific ailment, it proposes prescribing consensual treatments for that pathology, disregarding the individual approach that concerns the patient in an integrative context. Therefore, in allopathic medicine, ten asthmatic patients may be treated with the same therapeutic scheme (Echegaray et al., 2022).

History

The first text in history on phytotherapy is written in clay and consists of a group of tablets engraved in cuneiform characters, which come from the Sumerian civilization, 3000 years before Jesus Christ (Johnson, 2020).

Humanity has used plants to cure many diseases for thousands of years. One of the earliest pieces of evidence for the origins of Herbal Medicine is the Ebers Papyrus (named after the German Egyptologist who translated it) which lists hundreds of plants and dates to around 1500 BC. Much later, in the 9th century, the French King Charlemagne instructed monasteries and abbeys to cultivate medicinal plants for the treatment of patients (Echegaray et al., 2022). Plants possess a veritable chemical arsenal, of which only a third is known, considering the variety of existing species worldwide and those unexplored until today, without considering those species already extinct. Each region of the world developed its way of healing from medicinal plants, which is unique and characteristic since endemic species of the regions in question were used. Over time, these characteristic local therapies came to form the so-called traditional Medicine, and when preserved by the original peoples, it was called aboriginal or autochthonous Medicine. These terms exist to this day and the traditional or autochthonous recipes, forms of preparation, administration, and dose, among other modern pharmacological parameters (Avello and Cisternas, 2010).

The teachings of Hippocrates (460-400 BC), who is known as the father of Western Medicine, made it known that diet and lifestyle were the basis of health and that, to cure and treat a patient, the doctor must understand the nature of the disease you are suffering from.

In the second century, Galen, another Greek physician, wrote more than a dozen texts on herbal medicine, and although many aspects of Greco-Roman Medicine were abandoned during the Middle Ages, physicians used these texts until the so-called Scientific Revolution of the 19th century. The 13th and 19th centuries led to the age of discoveries and scientific experimentation (Itzik and Taboada, 2007).

After the collapse of the Roman Empire, healthcare meant, for European people, a mix of herbs, diet and sometimes even pagan incantations or rituals. These practices led to millions of women being condemned and executed across Europe and America from the 13th to the 18th centuries by the Inquisition for practising “witchcraft” (Bone and Mills, 2013).

In the early 19th century, chemists began to identify and isolate the active ingredients in plants. Physicians and especially pharmacists learned botany because Medicine was largely based on medicinal plants.

The origins of many drugs can be traced back to plants. Apothecaries prepared medicines from various plant compounds. This began to change when, at the beginning of the 20th century, pharmaceutical companies began to synthesise drugs from chemical compounds, and drug stores became pharmacies (Echegaray et al., 2022).

Uses

Phytotherapy acts as allopathic medicine, using active ingredients capable of counteracting the problem. The only difference between a phytotherapeutic product and one of chemical synthesis is that the synthetic product bases its effectiveness on an isolated molecule developed in the laboratory, while the former bases its effectiveness on the Phyto complex, that is, the set of active principles and all the other natural components contained in the drug (Buragohain, 2013).

Herbal medicine has been used since ancient times to cure or relieve diseases, giving rise to phytopharmaceuticals, and is appreciated for its low cost and low toxicity rates, compared to synthetic products. Currently, as in ancient times, natural products, plants, and their extracts are still used in the treatment of diseases. Its use is determined by many factors such as the increase in microbial resistance to some synthetic products, the evidence of undesirable side effects and the high price of synthetically obtained drugs compared to most of the similar ones derived from nature (Gallegos Zurita, 2017).

The healing virtues of plants stimulate the body's defences instead of replacing them. They act deeply but gently without attacking the body. The result is more effective, long-lasting, and generally free of side effects (Bone and Mills, 2013).

Phytotherapy and the concept of Phyto complex are often confused with phytopharmaceuticals that, by definition, are already part of conventional therapy.

Phytotherapeutic products are used in very diverse pathologies such as disorders of the musculoskeletal system (for example, inflammatory and degenerative such as osteoarthritis, arthritis and tendonitis), of the nervous system (anxiety, insomnia, depression, cognitive disorders, headaches), urinary (infections, prevention of lithiasis, benign prostatic hyperplasia), dermatological (dermatitis, psoriasis, acne), digestive (lack of appetite, gastritis, ulcers, diarrhoea, constipation, irritable bowel, liver and gallbladder disorders), metabolic (overweight, hypercholesterolemia, diabetes of the adult), circulatory (slight hypertension, varicose veins, haemorrhoids), respiratory (colds, flu, bronchitis) (Benedum, 2006, pp.3–11). Phytotherapy encompasses a wide variety of plant products that have different properties. The way to use them is essential with liquid solutions or pills with plant extracts, although many of the popular herbs have traditionally been used in infusions, such as horsetail. Medicinal herbs have also been used to create lotions, creams, and ointments for topical use to predict and cure skin conditions (Avello and Cisternas, 2010).

Efficacy

When we consider that the History of Phytotherapy encompasses more than 2,000 years from ancient times to the modern era, it is reasonable to assume that many of the medicinal plants used during this period are capable of exerting certain actions and that they lack dangerous secondary effects. Otherwise, they would not have survived the passage of times and cultures. It would be frivolous to relegate the collective experience of more than 50 generations of doctors and patients to the consideration of a "placebo effect". However, for many indications, the traditional use of a certain plant (object of study in Ethnopharmacology) does not constitute sufficient proof of therapeutic efficacy by itself. Rather, it should be seen as a starting point for drug development (Benedum, 2006, pp.3–11).

Different parameters contribute to demonstrating the effectiveness of a Phytotherapy preparation, but not all have the same relevance. These parameters include knowledge of the active ingredients, the results obtained in experimental pharmacological trials and clinical experience. The evidence of efficacy must be based on the latter (Calvo et al., 2014).

Efficacy is achieved only with proper preparations, both in what refers to the indications, such as administration and dosage (Guijarro, 2005).

For example, St. John's wort may work against mild to moderate depression. However, it can interact with birth control pills, antidepressants, and other drugs. It can also cause side effects like upset stomach and anxiety (Biblioteca Nacional de Medicina, 2022).

The effectiveness of herbal medicine continues to be relative due to the lack of good quality evidence. Reviews and studies often produce equivocal results; therefore, its efficacy currently rests upon traditional practice rather than science (Walker, 2015).

How effective are the plants in the treatment and curing of diseases, pharmaceutical products, and what kind of diseases can be treated with medicinal plants, are questions yet to be answered with absolute certainty. Although the populations of rural sectors indeed try to solve almost all their health problems with plant extracts, it cannot be affirmed that the results are favourable, but it is also true that, over time, it has been the only way they have found to achieve a healthy life in sectors where access to specialized medicine is unattainable (Miranda, Velázquez, & Bermúdez, 2005).

Contraindications

According to the denomination used by the European Medicines Agency (2018), Phytotherapy medicines or herbal medicines, with rare exceptions, are not appropriate for acute or emergencies, so they have little importance in the hospital environment. They are mainly prescribed by general practitioners, by some specialist doctors or used as self-medication, often after consulting a health professional, especially a pharmacist.

Many drugs come from Traditional Medicine and have been used for centuries, which guarantees their innocuousness, mainly as far as acute toxicity is concerned.

This ancestral use has probably contributed to the population's widespread perception that natural is synonymous with innocuous. However, although plant drugs and derivatives usually have a wide therapeutic margin, they are not exempt from possible adverse effects.

Hence, the evaluation of its safety must be carried out with the criteria applied to other drugs and must be supported, whenever possible, by the existence of scientific documentation relevant to its toxicity, side effects, interactions, and contraindications (Johnson, 2020).

Frequently, the idea that "natural is good" is rooted in the collective consciousness; The population does not associate the concept of drugs with medicinal plants, and theoretically, they are. A drug is any substance that causes an effect on the organism; if it is positive, we call it medicine and if it is not, it becomes a poison or toxic. Whether a drug behaves like poison or medicine will essentially depend on the following factors: the dose, route of administration, susceptibility of the patient and, above all, the need for it (Avello and Cisternas, 2010).

The active ingredients of medicinal plants are chemical substances that have pharmacological activity on body systems, but can also have side effects, contraindications, toxicity and interactions with conventional drugs used in many treatments (Buragohain, 2013).

The use of contraindicated herbal drugs in a specific physiological situation will cause certain side effects, or even toxic ones, to appear in the patient, and that would not appear normally

in people without the said disorder. For example, the acids of the artichoke leaf (*Cynara scolymus*) have a detrimental action that makes this drug contraindicated in cases of obstruction of the bile ducts. Usage in this situation could cause epigastric pain and vomiting as side effects.

There are three situations in which special precautions must be taken when specifying a phytotherapeutic treatment: special physiological situations, physiological dysfunctions and lesional or degenerative pathological states (Gerard and Johnson, 2015).

Statutory and Voluntary Self-regulation Systems

Although Phytomedicine is recognized by the World Health Organization (WHO, 2022), the problem of how to harmonize phytotherapy with the so-called conventional medicine has not been fully resolved. The WHO recognizes the importance of medicinal plants in the treatment and prevention of multiple diseases, as well as their relevance at an economic level as they are a source of discovery of new drugs that in some cases have a much lower cost than the synthesis of new drugs. The return of scientific interest in medicinal plants, investigating their richness and chemical variability, has prompted a revaluation of their use in many parts of the world, representing a complementary form of healing, in which the empiricism of therapy is left behind in the function of scientific evidence, harmonizing traditional medicine with the official therapies of each country (Menéndez and Buergo, 2018).

The concept of phytotherapy is one, but its development in different countries is not comparable and is influenced by the richness of the flora together with the social and regulatory aspects of each culture. In this regard, each country has legislated and managed the issue of phytotherapy according to its vision. Countries such as Mexico and Cuba consider it a therapy as valid as the conventional one and ask patients what type of therapy they prefer to be treated with (Avello and Cisternas, 2010).

Moreover, the use of herbal remedies is prevalent in developing countries, where oftentimes, due to socioeconomic factors the population does not have access to medical treatments.

In 2002, the WHO proposed strategies to include complementary and alternative medicines in public health, focusing on aspects such as policy, safety, efficacy, quality, access and rational use, urging governments to take advantage of the contribution of these therapeutic options and integrate them into health systems globally. It is estimated that in some developing countries more than 80% of the population uses some type of alternative or complementary medicine (WHO, 2022).

Currently, in the UK, practitioners of Phytotherapy are allowed to diagnose and treat patients with herbal treatments so long as they do not contain restricted substances. Practitioners do not often have the means or facilities to concoct herbal remedies on the premises and often rely on herbal products that are pre-formulated and no longer available. Herbal products such

as food supplements and herbal infusions are probably the most widespread form of phytotherapy used by the population. These products have been long regulated, categorised and researched for safety (Walker, 2015).

The House of Lords Select Committee proposed in 2000 that practitioners of herbal medicine should be subjected to statutory regulations due to concerns of the practice posing a risk of maleficence through malpractice, regulations came into full effect by 2011, while also banning large scale imports of unregulated herbal products.

Most practitioners in the UK agree with the possibility of strengthening regulations on the basis that practise would be safer and assured by a regulatory body, while detractors argue that such regulations would be illegitimate and unnecessary considering the lack of scientific evidence that would support the need for them (Lunstroth, 2006).

Currently, in the UK, complementary therapists continue to be de-regulated, and their registration is voluntary. Therapists can register voluntarily with the Complementary and Natural Healthcare Council (CNHC) to be recognised as qualified practitioners. Membership recognises professionalism, qualification, code of conduct and personal and professional development (Complementary and Natural Healthcare Council, 2019).

Ethical Considerations

The professional should always ask the patient about the consumption of phytomedicinal preparations. The patient must know that the use of medicinal plants is not without risks that must be known and evaluated. The person responsible for the dispensing or sale of preparations based on medicinal plants must be equipped with the necessary knowledge to provide a correct use to the consumer, as well as a control against possible negative effects that derive from their use (Menéndez and Buergo, 2018).

Most herbal products have yet to be licensed like conventional pharmaceutical compounds would, thus rendering their efficacy and safety harder to establish.

Regular review and control of herbal ingredients that are banned or restricted due to their potential harmful nature is needed to strengthen the safety of consumption and usage of herbal remedies (Walker, 2015).

The authorities need to educate and inform both health professionals and the population, regarding the concept of drugs, medicinal plants and their products; where and to whom to turn in case of queries regarding phytotherapy; where to buy medicinal plants or their products safely and reliably; as well as to evaluate and rationalize the practices of exploitation and advertising of herbal medicines and others labelled as “natural”, to protect the public against false claims and malpractice (Avello and Cisternas, 2010).

Recommendations

The implications of practitioners being largely self-regulated could be detrimental to patients' safety and health. The lack of imposition of requirements of healthcare providers, such as enhanced DBS background checks, insurance, safeguarding and professional training does not ensure protection against malpractice (Lunstroth, 2006).

The government should ensure that specific regulations are mandatory regarding standards of practice, thus ensuring the patients' health and safety.

Another option would be to establish Phytotherapy as a scientific discipline, to be used and practised in conjunction with allopathic treatments. However, this model would require considerable development and high-quality studies where treatments are thoroughly tested for safety and effectiveness (Walker, 2015).

Conclusion

Phytotherapy, Phytomedicine or professional medical herbalism synthesises the ancient wisdom of medicinal plants in traditional use throughout the world with modern medical biosciences and phytochemistry. Phyto therapists apply to heal with medicinal plants and prevention and wellness promotion with recipes tailored to suit a particular patient. Lifestyle and dietary advice are also essential to meet the therapeutic goals of phytotherapy (Calvo, Sánchez and Duque, 2014).

Normally, we oppose phytotherapy to "classical" or "chemical" medicines. But each has its place. Currently, the efficacy of "plant" medicine is scientifically recognized and proven. Its undoubted benefits for our health and its natural nature have allowed phytotherapy to gain a foothold in our daily lives (Avello and Cisternas, 2010).

The current era is characterized by the search for a healthier lifestyle, a return to nature and essential values. Due to its gentle and deep action, phytotherapy appears as the ideal answer to the "problems" of modern societies, such as stress, difficulty falling asleep or being overweight. Phytotherapy medicines have generated considerable enthusiasm since they were recognized as effective natural solutions (Itzik and Taboada, 2007).

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