
Introduction

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Biographical notes: Sundus Tewfik is a Senior Lecturer in Pharmaceutical Sciences Department of Health and Human Sciences, London Metropolitan University. She was qualified as a Multi-Disciplinary Biological Scientist in 1991. She holds Master in Applied Microbiology and PhD in Pharmacognosy from the University of Westminster. She is registered as 'Biomedical Scientist' at the Health Professions Council (HPC) and fellow of the Institute of Biomedical Science. Additionally, she is 'Chartered Scientist' at the Science Council, UK. She has carried out numerous research projects on various aspects of herbal medicine; biochemical analyses, antimicrobial testing, identification of 'biologically active' components and quality control of Herbal Products.

Welcome to this special issue of WRSTSD, which is devoted to 'Traditional, alternative and complementary medicine'. Recent advances in integrated and community medicine have motivated a lot of research in the direction of traditional, alternative and complementary therapies. Such combined specialities may have a wide range of applications, including assessments, interventions and surveillance of complex syndromes. They are bringing many new challenges and considerations in combating illnesses, which go well beyond the realm of conventional medicine. Given the overwhelming interest in traditional, alternative and complementary therapies in Western countries and their extensive usage in developing countries, this special issue is intended to foster the dissemination of high quality research in evaluating efficacy, safety, cost-effectiveness and accessibility of traditional, alternative and complementary therapies in disease management. Furthermore, it aims to determine how some of these therapies can be integrated into clinical practice to improve patient care.

This special issue has attracted a number of interesting topics under the subject and we are presenting them in no specific order. The first paper is on 'Nutraceuticals, functional foods and botanical dietary supplements; promote wellbeing and underpin public health' in which Dr. Sundus Tewfik and Dr. Ihab Tewfik uncover the vast public interest in food and health. This interest has created market demand on foods for specified health use; e.g., nutraceuticals, functional foods and botanical dietary supplements. The increase sales trend of these food categories reflects the growing levels of health consciousness throughout communities. In this article the authors stipulate that many regulatory organisations are considering ways to establish the scientific basis to support and further validate claims for functional components or the foods containing

them. Fortunately, credible scientific research indicates that there are many clinically demonstrated and potential health benefits from these food components. In addition, this trend is expected to continue as governments mount campaigns to arrest the growing burden of lifestyle-related diseases on national health bills. Drs. Tewfik add that there is a need to collect comprehensive data on nutraceuticals, functional foods and botanical dietary supplements to make these data systematically available to doctors, dietitians, nutritionists, herbalists and health professionals.

The following paper is on 'Opportunities and threats for biological screening of medicinal plants: Importance for the pharmaceutical industries in developing countries' in which Professors Nilgün Öztürk and Yusuf Öztürk have indicated that large quantities of medicinal plants are used in the preparation of infusions and decoctions both developed and developing countries. They added that a greater amount of medicinal plants is currently used by pharmaceutical industry in the preparation of a wide spectrum of derivatives ranging from total extract to extracts with a high content of active constituents to chemically pure products, the latter being used directly as medicaments or as starting materials for the synthesis of other products. This paper outlines biological screening of medicinal plants, focusing on methods useful for pharmaceutical industries as well as recent trends in the pharmacological investigations of natural products. In their review, the stages of biological screening, pharmacological screening techniques and the methodological differences between synthetic and natural products' screening are also summarised.

The following paper 'Plant medicines: a herbalist's perspective' reviews the past century in term of phytotherapy which has been consigned to the peripheries of medicine. It highlights the current changes to statutory regulation that will enable herbal medicine practitioners to become a major contributor to empowering the nation's health. It also underlines the herbal medicine's central ethos-its healing ecology-which enables the individual to take responsibility and care for ones own health. It emphasises that herbal medicine can bring radical change to patient's expectations and the way the medical community operates, which is of crucial importance to understand that health is more than simply the absence of illness. It is an active state of physical, emotional, mental and social well-being, viewed in the light of interdependence with all communities of life on Earth. In this paper Dragana Vilinac, medical herbalist, expands these ideas focussing on long term sustainability when dealing with issue of health.

The following paper is on 'Authentication of medicinal plant material by DNA fingerprinting' in which Dr. Sundus Tewfik underscores the positive therapeutic results, proven by herbal medicines which are gaining popularity worldwide for human wellbeing and healthcare. Unfortunately, one of the hurdles that might impair their potential future as 'medicine of choice' for health conditions is the lack of standardisation. Moreover, adulteration of herbal medicines has been the focus for many scientific articles and case reports. They demonstrated that the health consequences of adulterants may vary from life threatening to death. Fortunately, the breakthrough in genetic identification promises herbal medicines a challenging era. Dr. Tewfik reports that genetics permit the capacity to police adulterants to protect patients and public from a dangerous fraud. This paper demonstrates the analytical techniques employed for DNA analyses for quality control and authentication of medicinal plant species.

The following paper is on 'Integrative Medicine, chronic disease and Tibb' in which Professor Bhikha RA, Mr. Haq and Dr. Glynn compares the complementary medicine to conventional medicine and points out the differences and similarities. They highlighted

that complementary arm of integrative medicine can resort to specific therapeutic techniques like acupuncture or aromatherapy, or broadly adopt particular medical paradigms such as Ayurveda, Naturopathy, Homeopathy or Tibb (aka Unani medicine). The latter system is particularly attractive, as it has much in common with conventional medicine, being in many ways its historical forerunner. The article gives advantages of more integrated medicine and hurdles in reaching its potential as a public health system.

The following paper is on 'Complementary Therapies education for the 21st century' in which Dr. Brian Isbell has effectively presented his effort over the past ten years, to develop an innovative portfolio of over 30 courses in complementary therapies. The courses were the first of their kind and the portfolio continues to grow so that currently it now provides the widest selection of courses in complementary therapies in Europe. In his paper he explores the history and context of this comprehensive, higher education portfolio of courses. The nature of the shared innovative health sciences, practitioner development and research themes of the courses are described and how their organisation contributes to the consolidation of a collaborative approach to practice. The role of the unique Polyclinic in preparing students to work in the integrated inter-professional healthcare provision of the 21st century is also discussed.

The following paper is on 'Content of magnesium in Ginkgo biloba leaves' in which Professor Pavle Jović investigates the magnesium content in Ginkgo biloba leaves, which also has neuroprotective effect. The magnesium content in dried Ginkgo biloba leaves was determined by atomic absorption spectrophotometry and compared with those of *Urtica dioica* (a mineral-rich plant). She also analysed the concentration of magnesium in aqueous extracts of these plants by a spectrophotometric method with calmagite. The paper concludes that Ginkgo biloba leaves and aqueous extract (tea) prepared from leaves are rich source of magnesium and antioxidants which might be beneficial in the treatment of circulatory disorders in comparison with commercial extracts.

The following paper is on 'The future of traditional medicine' in which Valerie Bullen specifies the increasing demand for various forms of traditional medicine, here considered under the umbrella term of Complementary and Alternative Medicine (CAM), to be available as part of mainstream healthcare, and the WHO has formulated a strategy to assist member states in facilitating integration. Valerie indicates that there are major issues of safety, effectiveness and cost along with how to select, deliver and regulate such a diversity of complementary and alternative therapies. The situation in the UK is reviewed in this article to illustrate areas of commonality and tension between CAM and conventional medicine.

Overall this is a collection of papers, which provides valuable insights into a range of issues concerning traditional, alternative and complementary medicine across a range of context. I anticipate that we will continue monitoring the steady development in such branch of science through a number of special issues that nurture the growing consumers' concern about health and wellbeing.