

Chapter 6

Herbal Benefits of Tea

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ABSTRACT

*This chapter per the authors will introduce the reader to Complementary and Alternative Medicine (CAM) and shall discuss herbalism as a subset of CAM. Particular emphasis will be placed on herbal teas or rather infusions and decoctions used in disease therapy. This chapter will enumerate the different types of teas and shall use maps, graphs, and other tools to illustrate location, consumption, use and availability. Furthermore, the authors will highlight potential health benefits, recent studies (in vitro, in vivo) undertaken by research scientists to validate efficacy, and shall call for more research (clinical data management, clinical trials, etc.) and support for ongoing work in this area of expertise. The authors shall place a spotlight on the plant family, Asteraceae, and their herbal plants of interest, *Artemisia annua* and *Brickellia cavanillesii*. Extensive studies have been performed to determine the therapeutic potential of *Brickellia cavanillesii* plant at Ernest E. Smith laboratory, The Institute of Environmental and Human Health (TIEHH), Texas Tech University, Lubbock, USA.*

INTRODUCTION

Complementary and Alternative Medicine (CAM)

The use of complementary and alternative medicine (CAM) in disease therapy dates back to prehistoric man, and has increased exponentially over time. Before the advent of modern science, early humans employed the use of alternative remedies as therapy for disease. Archeological records indicate that during the Stone Age, treatment of biologic disorders involved certain practices. The methods utilized involved a broad spectrum of approaches that is termed CAM by scientists today. Early civilizations embraced these practices as is evidenced in Persian, Greek, Egyptian and Chinese cultures amongst others. CAM continues to grow with concomitant recognition by scientific researchers and healthcare professionals

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around the globe. The motives for using CAM are variant and may include: to fight disease, to increase the body's ability to fight disease, to improve physical and emotional well-being, to counteract ill effect from disease, and as advised by healthcare professionals (Molassiotis, 2005). CAM, as the name connotes, is comprised of diverse medicinal and health care systems, practices, and products that are not typically considered to be a part of conventional medicine. Complementary medicine is used together with conventional medicine whereas alternative medicine is utilized in place of conventional medicine; CAM encapsulates traditional (conventional), alternative and integrative remedies. Treatment may be considered 'complementary' when non-orthodox methods are utilized simultaneously with conventional medicine. When non-orthodox methods are used in place of conventional medicine, it is considered 'alternative.' Approaches that utilize the systematic use of conventional and alternative treatment are termed 'integrative.' The National Center for Complementary and Alternative Medicine (NCCAM) classifies CAM into four distinct categories:

1. Whole medical systems;
2. Mind-body medicine;
3. Biologically based practices; and
4. Manipulative and body based practices (NCCIH, 2015).

Whole medical systems are built upon complete systems of theory and practice which evolved earlier than and apart from the conventional medical approach used by western cultures. Mind-body medicine employs a variety of techniques designed to enhance the mind's capacity to affect body function and symptoms. Techniques such as meditation, prayer, mental healing and therapies that involve art, music and dance are usually applied by CAM practitioners. Biologically- based practices use substances found in nature such as herbs, foods and vitamin. Manipulative and body based practices involve the manipulation and/or movement of one or more parts of the body and includes chiropractic and osteopathic manipulation and massage therapy (NCCIH, 2015; Eshiet, 2010; Eshiet et al., 2014a, 2014b). This chapter focuses on biological-based practices as is demonstrated in the herbal benefits of tea (herbalism).

Herbalism

Herbalism also known as phytotherapy is an integral component of CAM, and is a veritable source of alternative medicine. The practice of herbalism dates back to primordial periods. Herbalism is a biologically-based practice whereby plants and plant extracts are used in traditional medicine. Plants synthesize many secondary metabolites which are useful for the maintenance of health in humans and other animals. Of these secondary metabolites, less than 10% (~ 12,000) have been isolated (Lai 2004; Tapsell 2006). Herbal plants have been used by all cultures throughout history. Records show that marshmallow root, hyacinth and yarrow were found placed around the bones of a Stone Age man in Iraq (Zand et al., 2003). Marshmallow is a demulcent herb which is soothing to inflamed or irritated mucous membranes such as sore throat. Hyacinth is a diuretic that facilitates the excretion of excess water from the body while yarrow is a renowned cold and fever remedy. Other records show that in 2735 B.C., Sheng Nong, a Chinese emperor, wrote an authoritative exposition that continues to find use today. In his exposition, Sheng Nong suggested the use of Ma Huang (ephedra) against respiratory distress. Ephedrine,

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