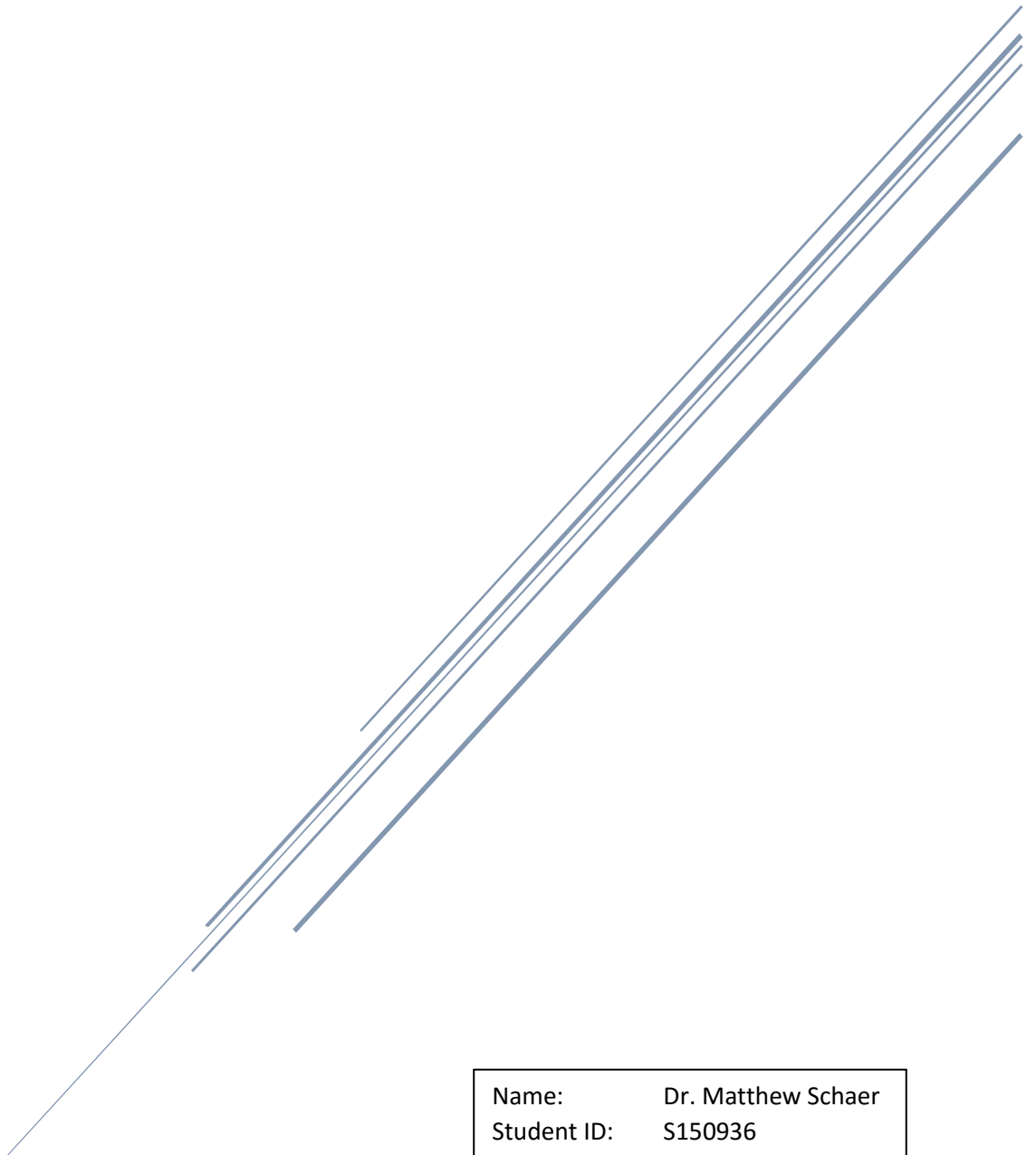


DOES BOTANICAL MEDICINE HAVE A PLACE IN CHIROPRACTIC?

A Study of Alternative Medication in an Alternative Field



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INTRODUCTION

Archeological excavations dating as far back as 60,000 years have shown remnants of botanicals, such as ephedra (*Ephedra sinica*), opium poppies (*Palaver somniferum*) and cannabis (*Cannabis indica/sativa*). From the earliest of times *Homo sapiens* and possibly earlier forms of Homo, have been experimenting with botanicals to ascertain how they can help and heal us. What we have learned from several thousands of years of experimentation is a considerable portion of our known oral and written history of health care and well-being. Popular scientific belief states, that humans may have initially been drawn towards botanicals and their healing properties from the observance of fauna. In several ancient civilizations the curative benefits of botanicals were derived from a sort of spirit medicine, otherwise known as Shamanism. Shamans connected with certain plants in order to harness their benefits or believed powers. It is insinuated that humans and plants have an instinctual connection that allows certain individuals the ability to hone in on the inherent healing properties within botanicals. As shamanistic recognition advanced, the documentation of their knowledge of the properties of botanicals increased.

Some of the earliest known written records of medicinal botanicals can be dated prior to the rise of the Egyptian civilization. An example of this is the Egyptian Ebers Papyrus which dates back to 1550 B.C and outlines over 700 magical formulas and remedies. The Indian Charaki Samhita is dated at 700 B.C. and notes the usage of more than 300 medicinal botanicals. Even older, the Indian practice of Ayurveda dates back over 5,000 years ago and is recorded in texts such as the *Rig Veda* and the *Atharva Veda*. In China, as far back as 2000 B.C., herbalists were manufacturing and prescribing botanical medicines. The very first accounts for what we commonly know as herbalism today were documented by Shennong, a formidable Chinese Emperor who is said to have lived as long ago as 2800 B.C.. Known as the Emperor of The Five Grains, Shennong is said to have inspired the Shennong Ben Cao Jing, which documents some 365 types of botanicals and their properties. The Greek physician Hippocrates, referred to as the Father of Modern Medicine, is quoted as saying “let food be thy medicine and medicine be thy food”. Hippocrates is attributed with the *Hippocratic Corpus*, an assemblage of more than 60 texts detailing herbal practices from the early ancient Greek period. Later in the Middle Ages in Europe, Hieronymus Harder compiled the *Herbarium Vivum*. The oldest volume of these works dates back to the year 1562 A.D.. During this period, Benedictine monasteries became the leading authority of medicinal wisdom and they grew a variety of herbs and plants in their gardens in order to treat commonplace conditions. Herbalism and the use of botanicals was primarily carried out by women during this time. There were three fundamental sources of botanical knowledge, however; the Italian Salerno, the Arabian School, and the Anglo-Saxon Leechcraft.

Before the great advance of modern science, the 16th and 17th centuries have been known as a golden age for herbal and botanical awareness, development, and use. In the 17th century, English botanist, herbalist, and physician Nicholas Culpeper created several prominent works such as *The English Physician* and *The Complete Herbal* (Culpeper, Nicholas. Complete herbal)

These works helped to both strengthen awareness and familiarization of herbs and botanicals with the general population. American botanist and horticulturist John Bartram studied the treatments and practices of the Native American tribes and shared his knowledge within the professional community. Following later in the 1800's, American and European medical schools began to see a trend of primarily teaching the use of medications (Fundamentals of Botanical Medicine, Lecture 1, 2015). The American Medical Association was formed in

1847, partially due to interest in herbs and alternative medicine. However, by the time of incorporation in 1898, support for herbals and botanicals declined favoring a focus on regulating and increasing standards of what is now considered traditional medical education in the United States (AMA History Timeline, January 2016)

Herbal Medicine in the late 19th through the 20th century saw radical transitions. During this time chemists began to synthesize the active ingredients of botanicals and began to manufacture standardized drugs. The advent of the combination of modern and alternative or holistic medicine is also noted in this century according to, and noted from Lecture 1 Fundamentals of Botanical Medicine 2015 (Fundamentals of Botanical Medicine, Lecture 1 2015). According to a study done in 2005 by the World Health Organization, over the last 100 years, the advancement and mass production of chemically synthesized medications have revolutionized health care in the majority of the western world. However, significant sectors of the population in developing countries still confide in traditional practitioners and herbal medicines for their primary care. In Africa up to 90% and in India 70% of the population rely on traditional medicine to facilitate their health care requirements. In China, traditional medicine makes up for around 40% of all health care practiced and over 90% of general hospitals in China have units specifically designated for traditional medicine (World Health Organization (WHO) National Policy on Traditional Medicine and Regulation of Herbal Medicines. Geneva: 2005. Report of WHO global survey.)

Moreover, in an analysis conducted by the National Center for Complementary and Alternative Medicine, herbal therapy or the usage of natural products other than vitamins and minerals was the most commonly used alternative medicine (18.9%) when all use of prayer was excluded (Barnes, Bloom, and Nahin 2008). A survey conducted in Hong Kong in 2003 reported that 40% of the subjects surveyed showed marked faith in Traditional Chinese Medicine (TCM) compared with Western medicine (Chan et al. 2003). In a survey of 21,923 adults in the United States, 12.8% took at least one herbal supplement (Harrison et al. 2004) and in another survey (Qato et al. 2008), 42% of respondents used dietary or nutritional supplements, with multivitamins and minerals most commonly used, followed by saw palmetto (*Serenoa repens*), flax (*Linum usitatissimum*), garlic (*Allium sativum*), and Ginkgo (*Ginkgo biloba*), at the time of the interview. According to a report presented by the National Center for Biotechnology Information, (NCBI), “botanicals are used in the treatment of chronic and acute conditions and various ailments and problems such as cardiovascular disease, prostate problems, depression, inflammation, and to boost the immune system, to name but a few”. Further in their reports it is said that “in China, in 2003, traditional herbal medicines played a prominent role in the strategy to contain and treat severe acute respiratory syndrome (SARS), and in Africa, a traditional herbal medicine, the Africa flower, has been used for decades to treat wasting symptoms associated with HIV (De Smet 2005; Tilburt and Kaptchuk 2008).

Botanical remedies are quite common throughout Europe, with Germany and France having the highest percentage of over-the-counter sales within Europe, and in the majority of developed countries worldwide. It is easy to encounter essential oils, herbal extracts, or herbal teas readily available in pharmacies alongside pharmaceutical drugs. Botanicals can be processed and utilized in a variety of ways and forms. These may consist of the whole herb, teas, syrup, essential oils, ointments, salves, rubs, capsules, and tablets that are produced of a ground up form of an unprocessed herb or its dried essence. Botanical extracts include alcoholic extracts called tinctures, vinegars called acetic acid extracts, hot water extracts

which are called tisanes, simmered extracts known as decoctions and cold plant infusions which are called macerates.

In present times we have seen a reemergence in the use of botanicals due in part to the perception that the health care system has failed or has become ineffective. An example being, Methicillin-resistant *Staphylococcus aureus*; a potentially deadly skin/tissue infection that is resistant to many antibiotics. Found in the 1,000 year the Old English medical text Bald's Leechbook, a style remedy has been used to successfully treat MRSA infections that were resistant to penicillin and conventional medical treatment (Rivas, Anthony. Medical Daily April 4, 2015). According to a study presented by the NCBI "regardless of why an individual uses it, traditional medicine provides an important health care service whether people have physical or financial access to allopathic medicine, and it is a flourishing global commercial enterprise" (Wachtel-Galor, S.). Moreover, the report states, "the most common reasons for using traditional medicine are that it is more affordable, more closely corresponds to the patient's ideology, allays concerns about the adverse effects of chemical (synthetic) medicines, satisfies a desire for more personalized health care, and allows greater public access to health information. The major use of herbal medicines is for health promotion and therapy for chronic, as opposed to life-threatening, conditions. However, usage of traditional remedies increases when conventional medicine is ineffective in the treatment of disease, such as in advanced cancer and in the face of new infectious diseases. Furthermore, traditional medicines are widely perceived as natural and safe, that is, non-toxic" (Canter and Ernst 2004; Qato et al. 2008; Loya, Gonzalez-Stuart, and Rivera 2009; Cohen and Ernst 2010).

QUESTION

In a Chiropractic setting, the following theory is posed: it is suspected that there is a higher percentage of chiropractic patients that would be more inclined to use botanicals as opposed to those who have no experience with chiropractic. Chiropractic, historically has most commonly been wedged into the codification of alternative medicine. Chiropractic was based in part by mystical and ephemeral concepts with two fundamental assemblages often referred to as the "straights" and the "mixers". The mixers are more open to a mix of mainstream and alternative medical techniques including nutritional supplements and acupuncture (Kaptchuk, TJ; Eisenberg,. "Chiropractic, origins, controversies and contributions").

Therefore, it may be proposed that patients with chiropractic experience may be more apt to use botanical and herbal remedies.

METHODS

In our research, a questionnaire was given to a random population of forty chiropractic clients at Chiropractic Oosterheem in Zoetermeer, South Holland. The study asked each individual to respond to a battery of questions anonymously, honestly, and with care. The following questions were asked of the clients:

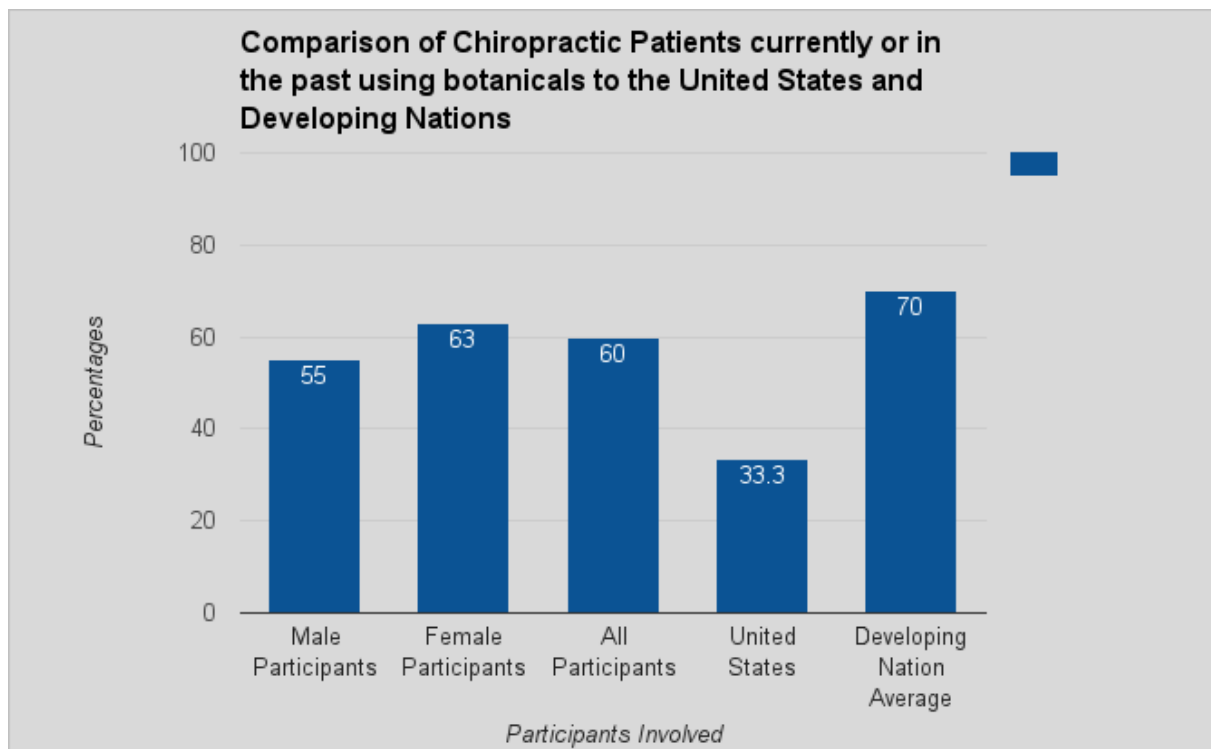
- Besides Chiropractic, have you ever used any alternative form of therapy?
- Do you currently or have you in the past used any type of botanical or herbal remedy?

- Would you be interested in attending workshops on how to prepare a variety of herbal remedies?
- Would you be interested in going on a local herb walk(s)?

The questionnaire was handed out to the clients by the front desk staff of the Chiropractic Oosterheem in Zoetermeer, South Holland. The front desk staff asked the participants to place the questionnaires in an unmarked box once completely filled out to allow for anonymity of the individual and to elicit honest responses. The completed surveys were collected and the data was then reviewed and broken down statistically according to varying subsets.

RESULTS

The total number of surveys performed and collected for this project was forty. The total number of female participants for this project was twenty two. The total number of male participants for this project was eighteen. The average age of the male participants for this project is forty (39.8). The average age of the female participants for this project is forty four (43.7). The average age of all participants, both male and female involved for this project is forty two (42.025). The average percentage of male participants that currently or have used botanical/herbal remedies in the past is 55%. The average percentage of female participants that currently or have used botanical/herbal remedies in the past is 63%. The average percentage of all participants, both male and female that currently or have used botanical/herbal remedies in the past is 60%. The percentage of male participants that reported having interest in attending workshops on how to prepare herbal remedies is 72%. The percentage of female participants that reported having interest in attending workshops on how to prepare herbal remedies is 82%. The total percentage of all participants, both male and female that reported having interest in attending workshops on how to prepare herbal remedies is 78%. The percentage of male participants that reported interest in going on local herb walks was 44%. The percentage of female participants that reported interest in going on local herb walks was 59%. The total percentage of all participants, both male and female that reported interest in going on local herb walks was 53%.



DISCUSSION

The data represented here does confirm that the average Chiropractic client at Chiropractic Oosterheem (60%) uses or has used in the past more than the average population using Traditional Chinese Medicine in China (40%) surprisingly. This can also be said for those using some form of Botanical or Herbal therapy in the United States at only (33.3%). However, this is significantly lower than that of the populations of India (70%) and African (90%) nations. This may be in part to the general lack of availability of pharmaceuticals in these parts of the world as well as due to cost.

We may also be able to infer that due to the high percentage of both male and female participants that show interest in attending workshops (78%) on how to prepare herbal remedies may be attributed to the popular perception that the current healthcare system and pharmaceuticals provided there within is fractured and does not operate properly where as people are looking for other health care options.

It must be stated that the data collected and shared here is not completely conclusive and is indicative of a need for additional research. Although the results do show high percentages of chiropractic participants that show interest in alternative forms of therapy, a clear association cannot yet be inferred. In other words, it may be able to be said that the research in itself may not unequivocally show any direct correlation between chiropractic care and the propensity to also utilize botanicals and that further analysis is needed for more a comprehensive conclusion. A deduction for this instance may be made due to the fact that the majority of chiropractic patients at Chiropractic Oosterheem are indoctrinated to Chiropractic Philosophy, subscribing to prevention, a proactive instead of reactive paradigm to using drugless solutions for their overall health and management of pain. According to Dr. Kenneth Pelletier "It's estimated that about one-third of all adult Americans, or some sixty million people, use herbal medicinal products each year, spending over \$3.2 billion. In the rest of the world, approximately 64 percent of the population relies on herbal medicines" (Pelletier, Dr.

Kenneth 2002). In another study, “it is estimated that up to 60-80% of the population in developing nations rely on traditional medicine as a primary source of healthcare. If one assumes that the current world population is approximately six billion, then as many as three billion people may rely on traditional medicines as their only source of health care” (Mahady, G., & Fong).

Many thought provoking ideas stemmed from the research, however, at present with limited sample and site specific data, what has been found makes it difficult to draw a conclusive conclusion, as it surprisingly does not seem at current there is enough significant differences.

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