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Aromatherapy: Uniting Body, Mind, and Spirit - The Missing Model

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Aromatherapy - Uniting Body, Mind, And Spirit: The Missing Model

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ABSTRACT

The historical definition of Holistic Aromatherapy has been limited to the use of highly diluted essential oils on the skin as the only pathway of entry. This paper redefines Holistic Aromatherapy to incorporate all appropriate methods of application and dilutions while considering the holistic triad of body, mind, and spirit. This encompassing definition accurately describes current practices of aromatherapy in the United States. This paper further proposes the need for a unifying system of practice and a philosophical framework that address all methods of use as well as the whole being.

The effectiveness of essential oils is discussed and substantiated by clinical studies. This presentation considers the different methods of application such as olfactory, dermal, oral and environmental. Methodology inaccuracies present in some existing studies are indicated and different approaches recommended.

A report of the state of safety, quality, and educational standards in the United States is also included. Safety and quality issues are discussed as they relate to the lack of and the need for more research. This discussion includes the role of the National Association of Holistic Aromatherapy (NAHA) in protecting the public and the practice of aromatherapy. The paper closes with an examination of the cost saving benefits of aromatherapy.

The Birth of Holistic Aromatherapy

Although aromatic plants have been used since the dawn of history,¹ modern aromatherapy is said to have commenced in 1937 with the publication of a book by French chemist René Gattefossé titled *Aromathérapie: Les Huiles essentielles hormones végétales*.² This book was one of the first attempts to begin a comprehensive and systematic study of the therapeutic uses of essential oils in recent times. During the same period, Dr. Jean Valnet, a French army surgeon, engaged in the study of the uses and properties of essential oils and published the aromatherapy classic *The Practice of Aromatherapy* in 1964.³ Gattefossé used incomplete⁴ essential oils (terpeneless) in many of his studies, and along with Valnet, only focused on the physical therapeutic effects. Their contemporary, the biochemist Madame Marguerite Maury, introduced a holistic approach to the practice of aromatherapy by considering the spiritual and mental aspects of human existence in her methodology. She further proposed the need for an "individual prescription" recognizing the important holistic postulate that individuals are inherently different. Madame Maury centered her practice on the application of highly diluted essential oils to the skin by way of massage or via use in the bath, and stayed away from all other methods of administration.⁵

Although Mme. Maury proposed a holistic approach through her work, the stipulations of using essential oils exclusively through the skin and in low dilution restrict the practice of aromatherapy. In the United States, most practitioners incorporate other methods of entry and use higher concentrations of essential oils when appropriate. They claim to follow a holistic approach, but because of the limiting associations of the term "holistic aromatherapy", they opt

to use the single appellation "aromatherapy" to designate their profession. Unfortunately, the word "aromatherapy" has many definitions⁶ leading to confusion and misconceptions.

This paper provides an inclusive definition of "Holistic Aromatherapy", presents the status of this practice in the United States, and reports on the problems and challenges it faces. It examines scientific evidence supporting the effectiveness of essential oils and reflects on the inherent problems with existing aromatherapy studies while proposing considerations for future research. It further provides an account of the current state of safety, quality, consumer awareness, and educational standards, and discusses the role of the National Association for Holistic Aromatherapy in all of these areas. It concludes with a review of the potential cost savings of holistic aromatherapy.

Holistic Aromatherapy: The whole person – the whole essence – the whole practice

Existing definitions of aromatherapy concentrate only on certain methodologies and do not reflect the current practice of this healing modality. This paper defines "Holistic Aromatherapy" as follows:

Holistic aromatherapy encompasses the inhalation, bodily and environmental⁷ applications of pure whole essential oils, hydrosols, and occasionally absolutes to achieve the intentional goals of restored or maintained physical, emotional, mental, as well as spiritual health and balance. It treats the whole person in an attempt to unite body, mind, and spirit recognizing that essential oils work on all three levels. Its foundation rests on the

premises that "the whole is greater than the sum of the parts". It heeds individual differences while considering the interconnectedness among human beings and the environment. Its objective is to treat the causes of disease and not just the symptoms. Its focus is as strong on prevention as it is on treatment.⁹

This inclusive definition is required in order to separate holistic aromatherapy from other methodologies. It is also needed to avoid the mistaken association with trendy aromatic products that may not contain natural essential oils nor offer any therapeutic value.

One of the differences between holistic aromatherapy and other methodologies is the consideration of the entire being. For instance, when relieving muscle pain or tension a holistic aromatherapist may create a blend of essential oils to relax the muscle and relieve pain as well as to act upon the client mentally, emotionally, and spiritually. In choosing the essential oils and carriers, the holistic practitioner attempts to address the underlying cause of the discomfort, considering the individual and the premise that the chosen oils act on all levels (body-mind-spirit). Conversely, non-holistic aromatherapists only treat the muscle condition; they are not necessarily concerned with the psychological and spiritual aspects or with the cause of the problem. Holistic aromatherapists therefore need a thorough knowledge and comprehension of the effects of the therapy on the body and mind including pharmacology, anatomy, physiology, pathology, psychology and the bodily energy system. Also required is a solid spiritual foundation from which the practitioner can draw to connect with clients and to assist them in achieving spiritual balance. Spiritual balance is a state of harmony with self, fellow human beings, environment, circumstances, and God.

A holistic aromatherapist uses the purest ingredients, specifically dealing with essential oils and hydrosols that are obtained with the least amount of human intervention and only using either

mechanical or physical forces during the extraction process. Adulteration by the addition of either natural or synthetic chemical substances or by the removal of certain constituents is not acceptable to a holistic aromatherapist. On the other hand, the non-holistic practitioner is not necessarily concerned with purity and quality.

In a holistic practice, lack of purity is the most quoted explanation for the sparing use of absolutes and leads to the exclusion of these substances by some practitioners and decrying of their use by others. Absolutes are oils that result from use of solvents to draw out essential oils from plant material. In the past, residue of these solvents was considered to interfere with the purity associated with holistic aromatherapy and thus absolutes were excluded from the practice. At present, many absolutes are virtually solvent free, but the controversy surrounding their use remains. Despite disagreement among practitioners, absolutes are necessary to obtain essences from certain flowers and herbs that have very low yields or produce inferior oils with distillation. Moreover, the spiritual effects⁹ of some absolutes require their inclusion in holistic aromatherapy.

Today, holistic aromatherapy faces many challenges. It lacks a unique and inclusive philosophical framework such as exists in Oriental, Ayurvedic medicine, and Homeopathy.¹⁰ The ever-increasing numbers of aromatherapy books have not resolved the need for a model or system of practices and appropriate treatments. There is limited information about essential oils, their actions, effects on the body, and their safety. Clinical evidence on efficacy is scarce and many of the studies that do exist have faulty methodology rendering their results dubious. Thus, holistic practitioners are left to incorporate a combination of scattered pharmacological, historical, and anecdotal knowledge as well as intuition and experience to determine which oils

to use and how to apply them in treatment. Spiritual aspects are added to the practice of holistic aromatherapy from the beliefs of the therapist and historical accounts. There are numerous references to aromatic substances and plants in the main spiritual books of all religions such as in the Bible, the Qur'an, the Upanishads, and the Bhagavad Gita. There are also references of the use of aromatic and essential oils for spiritual purposes in the works of poets and spiritual authors such as Shakespeare, Rumi, and Hildegard of Bingen and many others.

Most people benefit from essential oils unless they are sensitive atopic in which case certain essential oils¹¹ may produce allergies and skin irritations.¹² Children and the elderly require much lower dosages than healthy adults, and may be too sensitive for the use of certain essential oils even at very low doses. From a toxicological perspective, under appropriate and specified conditions of use, most common essential oils are relatively safe. Nonetheless there are some irritants, such as thyme and savory;¹³ some essential oils are known sensitizers causing allergic reactions,¹⁴ including phototoxicity;¹⁵ and a few such as bitter almond and mugwort are highly toxic.¹⁶ In addition, unscrupulous or uninformed companies produce "aromatherapy" products using synthetic fragrances or poor quality essential oils with no thought (and sometimes little knowledge) of current safety practices. The National Association for Holistic Aromatherapy (NAHA), a non-profit educational organization, has formed a committee with the sole mandate of addressing these safety concerns.¹⁷ The goal of NAHA is self-regulation to ensure that the proper safety, quality, ethical and educational standards are clearly defined, enforced by the Association and subsequently followed by the membership. Stringent standards imposed by an association such as NAHA are more desirable for the practice of aromatherapy than government intervention or regulation.

The most important cautions in holistic aromatherapy rest on quality issues, safety precautions of dosages, proper dilutions, frequency of use, and contraindications, as well as on the knowledge of the toxicity levels of essential oils. The quality of essential oils, hydrosol, and aromatherapy products determines their efficacy. Because essential oils are very concentrated substances, practitioners must overcome the general notion that "more is better". In holistic aromatherapy, the reverse is actually true; less is preferred. Proper dosages and dilutions are linked to safety and toxicity levels, which vary from oil to oil and according to methods of administration, conditions to be treated, and health, age, and tolerance of the person. Beginners in aromatherapy tend to utilize only a few essential oils too regularly facing the risk of developing sensitization reactions. The safe use of essential oils calls for intermissions between usage. Certain oils are contraindicated in the presence of certain conditions including asthma,¹⁸ chronic kidney disease,¹⁹ epilepsy,²⁰ gastric ulcers,²¹ and pregnancy.²²

Holistic aromatherapy has its proper and important place in assisting people to live healthier and more balanced lives. It can be very effective in dealing with certain pathogens and emotional imbalances as well as in reducing the discomfort, anxiety, and pain related to many diseases. Further, essential oils offer an alternative to antibacterial synthetics and other chemicals used for minor first aid, but in general, holistic aromatherapy is a complementary rather than an alternative practice; inappropriate as the sole source of healing for many conditions. It should not be used to treat life-threatening diseases although, under appropriate care, it may be used to relieve symptoms and to assist patients dealing with the spiritual, mental, and emotional repercussions of their conditions.

Effectiveness of Holistic Aromatherapy

Scientific as well as anecdotal evidence corroborates that essential oils exhibit myriad therapeutic actions. The practice of aromatherapy is said to be most effective in treating minor acute infections, in improving immune response, and in achieving and maintaining emotional wellbeing.²³ Some essential oils work well to alleviate symptoms of respiratory ailments due to their expectorant,²⁴ antispasmodic,²⁵ and mucolytic²⁶ actions, while others have powerful vulnerary effects aiding in the healing of wounds and skin ulcers.²⁷ Essential oils can be inhaled, applied topically, taken internally, and used in the environment for purposes of cleaning, sanitizing, or deterring insects. They act differently in the body according to the method of application and have a different pathway of elimination.²⁸

Inhalation of essential oils can be accomplished by using steam,²⁹ micro-diffusers,³⁰ or by simply rubbing a few drops on the hands or adding them to a cotton ball or tissue and bringing close to the nose. When inhaled, essential oil components enter the nasal passages stimulating the olfactory nerve and sending electro-chemical messages directly into the limbic system of the brain. The limbic system is the seat of memory, learning, and emotion; and thus, the inhalation of essential oils can stimulate and trigger changes in these centers.³¹ *Ludvigson and Rottman* (1989) used college students to test the effects lavender and clove aromas on cognitive skills and affective reactions to the test. They found that the scent of lavender negatively affected arithmetic reasoning while the scent of cloves increased the willingness improved the reactions to the test.³² The messages created by the aromatic molecules and relayed through the limbic system are transmitted to the hypothalamus, the gland that acts as a regulator of hormonal imbalances and emotional states such as anxiety and depression.³³ *Yamaguchi* (1990) and

Sugano (1992) showed that inhaling certain aromas such as sandalwood, bergamot, chamomile,³⁴ rose and lavender³⁵ induce a state of relaxation and decrease anxiety levels. *Birchall* (1990) recorded EEG patterns indicating that the odor of lavender produced a de-stressing effect in humans.³⁶ *Sugano* (1991) tested orange fragrance for its effects on work efficiency finding improvement in reaction times and increased α -band brain activity suggesting mental relaxation.³⁷

External applications of essential oils show analgesic³⁸, antiseptic, anti-fungal, anti-inflammatory, antispasmodic, and other beneficial properties.³⁹ The synergistic benefits of an aromatherapy massage where the inhalation of essential oils is accompanied by the therapeutic effects of touch, the relationship between therapist and client, and the placebo effect produce a complex but beneficial outcome.⁴⁰ A similar synergistic value is found when cold or hot compresses are used to apply essential oils in cases of inflammation, spasms or pain.

Inhalation and dermal applications combine to show the stress reduction effect of aromatherapy, a major benefit that seems to be leading this form of healing to its current level of popularity. *Wilkinson* (1995) reports the effects of ordinary massage as compared to aromatherapy massage on patients receiving palliative care for cancer. The findings included a statistically significant reduction in anxiety, pain and depression when essential oils were used in massage.⁴¹ Likewise, *Stevenson* (1994) reports a reduction of anxiety levels and improved relaxation of postoperative cardiac patients in an intensive care unit following a foot massage using Neroli oil for 20 minutes.⁴²

Essential oils are used internally by medical doctors and qualified aromatherapists to treat systemic problems, such as infections. With correct dosages, safety precautions, and purity considerations, this methodology works well for conditions such as indigestion, as well as for bacterial, viral, and fungal infections. However, the toxicity, contraindications, and overdose potential of essential oils taken internally are risks that should limit internal use to qualified practitioners.

Other applications include using essential oils on the environment to repel insects and as antiseptic or sanitizing agents. Researchers in India have found that peppermint oil (*Mentha piperita*) repels adult mosquitoes and kills the larvae. A team led by *Musharrah Ansari* of the Malaria Research Center and *Padma Vasudevan* of the Center for Rural Development and Technology in Delhi tested peppermint oil on the larvae of three mosquito species--*Aedes aegypti* (which carries dengue fever), *Anopheles stephensi* (malaria) and *Culex quinquefasciatus* (filariasis and West Nile virus) and found various degrees of effectiveness at different concentrations.⁴³ *Dube et al* (1989) found the oil of basil (*Ocimum basilicum*) effective against the *Aloophora* species.⁴⁴ Other examples supporting insect repelling efficacy of essential oils are found in the works of *Ansari and Razadan* (1995)⁴⁵ and *Watanabe et al* (1993)⁴⁶. *Ansari and Razadan* reported almost complete protection against *Anopheles culicifacies* (related to malaria) and other *anopheles* species using Citronella, Lemongrass, and Palmarosa. *Watanabe et al* studied some of the constituents of *Eucalyptus camaldulensis*, specifically eucamalol, and determined the superior effectiveness of this constituent against *Aedes aegypti* to the effects of the standard insect repellent DEET. Essential oil vapors have been known to inhibit microorganisms since 1887 when Chamberlain published a paper describing the action of essential oils against anthrax spores.⁴⁷ In recent years, J.C. Maruzella et al. (1960) tested the

vapors from one hundred and thirty-three essential oils against six test organisms. These organisms included *Escherichia coli*, *Staphylococcus aureus*, *Bacillus subtilis* var. *alterrimus*, *Streptococcus fecalis*, *Salmonella typhosa*, and *Mycobacterium avium*. Interestingly, twenty-eight of the essential oils tested were ineffective, but among the one hundred and five that possessed activity, in order of effectiveness, thyme (white), cassia, thyme (red), savory, cinnamon, oregano, and cherry laurel produced the most positive effects.⁴⁸

Challenges Measuring the Effectiveness of Holistic Aromatherapy

Measuring the effectiveness of holistic aromatherapy is a challenging task because holism does not lend itself to isolating different components in order to determine their individual contributions to the outcome.⁴⁹ Furthermore, the current limited knowledge and acceptance of the "un-measurable" concepts and "unseen" forces of the spiritual plane make it nearly impossible to "quantify" the spiritual effects of this therapy. Therefore, most evidence supporting holistic aromatherapy is anecdotal; however, a significant body of clinical studies backs specific uses and actions of essential oils. Scientific studies are necessary to gain more knowledge about essential oils despite the inherent limitations of these studies when dealing with holistic practices. Further, clinical studies assist in bridging the gap between allopathic medicine and aromatherapy; and when they follow correct methodology, they can lend credibility to aromatherapy.

Although the number of research and scientific studies in the area of the uses and effects of essential oils is increasing, it is imperative to adhere to better scientific methodology. Measurement of *'in vivo'* activity must replace or complement *'in vitro'* findings. Animal

experimentation is not the most appropriate method for measuring the efficacy of holistic aromatherapy, however it is widely used in essential oils research. Animal testing is a common means to determine the toxicity levels of essential oils; extremely high dosages and unlikely methods of administration such as injections are common practices in these studies. Animal skin differs from human skin, and the total effects of essential oil applications such as the underlying emotional benefits are even less 'measurable' in animals than in humans. Without other bases, results from these types of animal studies should not deter the use of an essential oil in the small dosages and techniques used in aromatherapy, but in many cases they do.⁵⁰

While most oils used in perfumery have been tested dermally on humans, many essential oils recommended and used in aromatherapy have not been systematically analyzed for safety of either oral use or dermal reactions. Some essential oils have only been tested for one administration method (e.g., oral toxicity, but not dermal effects) and results have been inaccurately extrapolated to other modes of use.⁵¹

Other common methodology problems include the lack of identification of the botanical sources of essential oils used in the studies, the exclusion of quality analyses, and the use of single synthetic constituents. Lack of botanical sources produce inconclusive results by not considering differences that species, varieties, and places of origin have in chemical composition and thus in the pharmacological and energetic actions of essential oils. Quality analysis should rule out the possibility of using adulterated essential oils since adulterants may taint the results of the studies. Emphasis must be placed on using whole pure and natural essential oils and not single synthetic constituents because the former and not the latter are the tools of holistic aromatherapy.

Further, whole essential oils are preferred because minor constituents have been shown to significantly complement and in some cases change the effects of major components.⁵²

Provided the correct methodology is used, clinical studies lead to a greater understanding and knowledge of the workings of essential oils that can support anecdotal accounts. Scientific research on the effectiveness of essential oils is therefore much needed. Data resulting from these types of studies can strengthen the foundations of any future system for holistic aromatherapy. As long as the focus remains on the entire being, the study of the parts assists in grasping and comprehending the whole. Ideally clinical studies would quantify the effectiveness of holistic aromatherapy and measure its actions on the body, mind, and spirit. However, studies that test the validity of specific claims concentrating on a single aspect of the human being will continue until a unifying system and philosophical framework for holistic aromatherapy is created.

Safety Issues and Quality Standards

There is still much to be learned not only about effectiveness and activity but also about the safe use of essential oils. Thus, safety issues and the protection of the public are important reasons to engage in more and better designed research. As the popularity of aromatherapy increases, so do the number of essential oil suppliers, aromatherapy products, and therapists. Some suppliers and practitioners enter the market only to take advantage of the current consumer demand and have little or no regard for, or knowledge of safety and quality issues. Others, knowingly or unknowingly, sell essential oils that have been adulterated by the addition

of synthetic or natural substances limiting the efficacy of their product and inviting allergic reactions to synthetic elements. A few of these people promote unsafe practices, such the use of known irritant essential oils, incorrect dosages and methods of application. However, perhaps the worst trespasses are inaccurate and unsubstantiated medical claims to encourage the sale of products and services.

Quality and safety are inherently linked. Essential oils, hydrosols, and carriers do not have to be adulterated to be inferior. Their quality is influenced by many factors such as the chemical variety of the plant (chemotypes), variations of environmental growing conditions, health of the plants, production technique, time of and care exercised during harvesting, distillation or extraction method, age, and storage conditions.⁵³ These elements affect efficacy, and in many cases, safety of essential oils and aromatherapy products. Therefore, full disclosure is critical to ensure proper and safe usage. Aromatherapy products diluted in vegetable oils or other carriers and claiming therapeutic effects should carefully state the percentage dilution as well as the correct botanical source of all ingredients included in the product. When other substances adulterate the chemical composition of the pure essential oil, they should be revealed. Likewise, disclosure is necessary when constituents have been removed from the whole oil.

Desirable Education for the Holistic Aromatherapy Practitioner

Currently, there are neither legal or industry guidelines governing the practice of aromatherapy in the United States, nor a national certification process for practitioners. The National Association for Holistic Aromatherapy (NAHA) is currently drafting standards for certification in

an effort to provide guidelines for students, instructors, and teaching institutions. In addition, NAHA will soon be issuing a Code of Practice for therapists. Although NAHA is in the process of determining the procedures required to implement a national examination and certification program, there is still much work to be done. Today the quality of aromatherapy education varies among schools and instructors. The required hours of study and curricula before granting a certificate or diploma is determined by each institution. Some schools focus on the physical and psychological effects concentrating on therapeutic actions, clinical uses, chemistry and other technical aspects, while others emphasize the study of more "subtle aspects"⁵⁴ of the essential oils and aromatherapy. Certain instructors and authors present a holistic approach by introducing other practices such as flower essences, massage, reflexology, nutrition, or counseling. Reductionistically, others center on disease and not people limiting their practices to home remedies and cures. The lack of educational guidelines increases the danger of incompetent practitioners. Rigorous educational standards are required to protect the public and ultimately the practice of aromatherapy.

Aromatherapy is both a specific science and complex art not just simple home remedies. Its complexity requires comprehensive educational standards whose aims are not directed to achieve uniform practicing styles but to address the competencies of all practitioners. Essential oils are the accumulated end products of secondary metabolic processes within plants, and consist of mixtures of hundreds of complex chemical components.⁵⁵ Many of these components have potentially powerful healing capacities when appropriately applied, but some can be harmful or toxic. Thus, aspiring aromatherapists must have a basic understanding of organic chemistry and comprehend the chemical composition of essential oils. The in depth study of essential oils, hydrosols, absolutes, and carriers; their origins and constituents; uses,

therapeutic actions, best suited methods of application, dosages, safety, and contraindications is imperative. The understanding of taxonomy is also beneficial, as is the study of whole plants and their historical therapeutic uses. Knowledge of botanical names (Latin binomials) is mandatory since the therapeutic actions and toxicity of essential oils depend on the plant variety from which they come and botanical names identify these varieties. Further, as in any other healing modality, competency in areas of human anatomy, physiology, and pathology is also needed.

Beyond traditional technical knowledge, there is a need to develop listening skills to discern the conditions leading to the client's discomforts or imbalances. It is important to develop course material that treats clients holistically, by recognizing and learning the working triad of body, mind, and spirit. Practitioners must be taught to recognize the limitations of aromatherapy, and when it is appropriate, to turn to other healing modalities including allopathic medicine. Essential oils blending techniques play a significant role in the education of a holistic aromatherapist because many of the healing effects arise from the "pleasantness" and "evocations" of the smells used and from the power of a synergistic blend. Blending is the artistic side of aromatherapy that must be learned by the aspiring practitioner, just as artists learn the fusion of colors and textures or musicians the harmony of notes.

Most medical practitioners aspiring to bring aromatherapy into their practices require a greater training of the "subtle" portions of holistic aromatherapy. Although a medical doctor can integrate essential oils in a non-holistic manner and still gain powerful results, it would be more productive to use essential oils to their fullest potential. A non-medical aromatherapy student may require more education of medical and scientific knowledge, while the medical practitioner

a greater emphasis on the sometimes 'un-measurable' concepts of spirituality, synergies, blending, and the role of intuition.

The skilled holistic aromatherapist works to develop a blend of oils that will suit the particular needs of an individual. The essential oils chosen must work well together aesthetically, as well as treat the particular physical or emotional complaint while addressing body, mind, and spirit. The knowledge, awareness, and listening skills required to create individual synergies are quite involved, and although a basic set of techniques can be learned in a course of study, mastery of these skills comes with practice.

Public Awareness: the necessary cautions about aromatherapy

Presently, in the United States, the public equates aromatherapy with scented candles; the relaxation gained from an aromatic bath, or with innumerable cosmetic products such as shampoo, shower gels, bath soaps, and other fragrant goods labeled "aromatherapy products". Education of the differences between so-called "aromatherapy products" and therapeutics of essential oils is among the many challenges facing NAHA and aromatherapy practitioners.

As consumers begin to accept aromatherapy as a source of healing, public awareness becomes urgent. The issues of quality standards, the need for more knowledge about effectiveness, and the qualifications of practitioners also become critical. Product labeling regulations, safety guidelines, and "seals of approval" by an independent body are desirable measures. The

continuous growth in the popularity of aromatherapy calls for voluntary codes of conduct, clinical studies of effectiveness and safety, as well as educational and practicing guidelines.

Although there are still many challenges, NAHA has taken first steps by establishing committees to address these issues. It has formed education, ethics, and safety committees as well as the True Aromatherapy Product (TAP) committee commissioned to create quality standards for products. Public awareness and education have been the major foci of NAHA. Public awareness is being addressed by providing a toll free telephone line, an informational website,⁵⁶ the industry journal (*Scentsitivity*), and local meetings held by NAHA volunteers throughout the country. Practitioners' education is mainly accomplished through conferences held every other year and by the association's publication, *Scentsitivity*.

To inform consumers, proper labeling of all essential oils and aromatherapy products is urgent. At a minimum, appropriate labeling includes English name, Latin binomial, and chemotype when appropriate; country of origin, extraction method, and date of production. Safety issues such as dosages, contra-indications, and toxicity levels should be clearly displayed on each product. Unfortunately, guidelines for use may be ruled by the Food and Drug Administration (FDA) as medical claims and thus should not be incorporated. However, sources of this information can be listed or otherwise made available to consumers.

The Economics of Aromatherapy

One has only to focus on the stress-reducing effects of aromatherapy to recognize the potential economic benefits. Numerous studies have shown that either used alone in inhalations or combined with a massage, some essential oils can result in the reduction of stress and anxiety levels.⁵⁷ Psychoneuroimmunology (PNI) links reductions of stress levels to less disease. Researchers at the American Institute of Stress estimate that 75-90 percent of all visits to health-care providers result from stress-related disorders. They recommend aromatherapy as a beneficial practice for the reduction of stress.⁵⁸

The idea that emotions can affect health by acting on neuroendocrine and immune systems has attracted increasing support during the last couple of decades. Neuroscientist Candace Pert establishes a biomolecular basis for emotions and formulates the concept of 'bodymind', where no separation exists between the body and the mind. Her work suggests that "no state of mind exists that is not reflected by a state of the immune system."⁵⁹ In 1998, at a meeting of the Psychoneuroimmunology (PNI) Research Society in Bristol, UK, it was reported that tuberculosis is reactivated by stress.⁶⁰ According to the *London Health*, tuberculosis kills more people around the world than either AIDS or malaria. They estimate a cost of fifty thousand pounds a year to take care of each person suffering from this disease.⁶¹ The state of Georgia in the United States reports an yearly average cost of \$ 18,925 per patient⁶² while the state of Illinois reports a cost of \$68,578 per completed treated case.⁶³

Many recent studies have also documented the connection between stress and disease. In 1991, *Cohen, Tyrell, and Smith* studied the relationship between psychological stress and the

frequency of documented clinical colds among subjects intentionally exposed to respiratory viruses. They found a direct connection between those who caught colds and levels of stress experienced by these subjects. The psychological stressors were events that made subjects feel as if their lives were unpredictable, uncontrollable, or overwhelming.⁶⁴ This study shows how psychological stressors impact the immune system.

Millions of Americans and others around the world succumb to the common cold or influenza virus with every change in season. They incur medical bills, spend millions on medication, miss work or school, and at the very least, their productivity is reduced. Although significant anecdotal evidence points to anti-viral properties of certain essential oils, there is only little substantiated research on these claims.⁶⁵ However, other factors contribute to the common cold or flu besides mere exposure to pathogens. The body must be weakened for the virus to invade it and produce disease. Holistic aromatherapy can assist not only by producing a positive psycho-immune response by the reduction of stress, but also by strengthen the immune system.⁶⁶ In addition to a healthy diet and sufficient rest, and exercise certain essential oils can assist in the prevention of the common cold and flu, this preventative contribution offering vast cost savings.

Other common conditions having similar economic costs are chronic pain, pre-menstrual and menstrual discomfort. Holistic aromatherapy can assist in the cost-effective treatment of these conditions. In her paper 'Use of aromatherapy as a complementary treatment for chronic pain', Jane Buckle contends that the relaxation effect of aromatherapy alone plays a role in the management of chronic pain. She further suggests that although clinical trials are in the early stages, there is enough evidence to support the use of essential oils as a complementary

therapy in the care of patients with pain chronic.⁶⁷ This condition consumes approximately \$70 billion per year and affects some 80 million Americans. Pre-menstrual discomfort such as mood swings, abdominal cramps, and anxiety can also be ameliorated with the use of essential oils.⁶⁸ These conditions have similar economic impact on society by impairing productivity and generating medical expenditures. Any benefits derived from the use of holistic aromatherapy that can ameliorate these symptoms and these conditions result in cost savings.

There is more to the economics of aromatherapy than potential cost savings. Ecological concerns such as the large deforestation being experienced by countries like Madagascar due to the demand for aromatic plants and their products must be considered.⁶⁹ As the demand for essential oils increases there is a danger for the extinction of wild herbs and other aromatic plants if conservation measures are not observed. Increasing demand for essential oils offers economic opportunities to farmers, especially those of underdeveloped countries. Within the political and socioeconomic structure of these countries these opportunities may benefit only a few and in fact may create or encourage the abuse of others. Expanding popularity and the possibility for quick returns invite unethical behavior and adulteration for profit. Economic and social benefits derived from healthier societies and from the establishment of less expensive methods of treatment that can be implemented at grassroots levels may transcend these negative factors. However, the gathering of more information is necessary to enable more precise cost-benefit analyses.

Conclusion:

In creating an all-inclusive model for the practice of holistic aromatherapy that unites today's fragmented techniques, we need to go back to nature and learn from its complexity and its wisdom. We should use scientific means to gather the information needed to help us understand the workings of essential oils. Further, we should bring consumers into the equation by listening to their needs and educating them in the benefits and risks associated with the use of essential oils. Finally, we must be sensible to ecological issues, and protect nature, for without it we would not have of the healing gifts we enjoy from aromatherapy.

The future of holistic aromatherapy rests on establishing a system that can be tested and documented, a system that can be replicated and thus is teachable. Knowledge about essential oils and their effects at all levels must be gathered from existing and new research that uses better methodology. Anecdotal evidence needs to be compiled, documented, and when possible, tested. Historical information that elucidates the spiritual aspects of aromatherapy must be revisited and taught. The goal is one of producing a system of practice that gathers the scattered existing information and directs future research; a system that results in a synergistic blend offering safety to all its users yet remaining accessible and free from government interference. A national association such as NAHA has the potential to facilitate the implementation of such holistic system once created. In the meantime, NAHA's efforts of education and public awareness must be continued and expanded.

NOTES

¹ **Mojay G:** *Aromatherapy for Healing the Spirit*, Gaia Books Limited, London (1996); p. 9.

² **Gattefossé R:** *Gattefossé's aromatherapy* (Ts. And Ed. Robert B. Tisserand); C. W. Daniel Company; (1937) & (1995), London.

³ **Valnet J, MD (1980):** *The Practice of Aromatherapy*, Healing Arts Press 1990.

⁴ Incomplete essential oils are those from which certain constituents have been removed.

⁵ **Maury M (1961 & 1964):** *Marguerite Maury's Guide to Aromatherapy, The Secret of Life and Youth: A Modern Alchemy*, C. W. Daniel Company.

⁶ There are many definitions of Aromatherapy; the simplest one regards it as a healing modality based on aromas or aromatic substances, as used in the preface of Gattefossé: "*A therapy or cure using aroma, aromatics, scents.*" (See endnote 2). Other definitions include the following:

- Aromatherapy: the use of aromas and fragrant substances (including essential oils) for purely aromatic purposes such as the use of candles, potpourri, and some bath and body products.
- Cosmetic aromatherapy is the use of essential oils for the skin and beauty care. (Lawless, J; *The Complete Illustrated Guide to Aromatherapy*, Element Books, 1997).
- Clinical aromatherapy addresses the needs of patients in a clinical setting and is concerned with specific physical or mental therapeutic outcomes. (Buckle, J; *Clinical Aromatherapy; Scentsitivity*, Autumn 1999).
- Medical aromatherapy has an allopathic approach concentrating on the chemical actions of the oils to attack pathogens. (Berwick, A; *Holistic Aromatherapy*, Llewellyn Publications, 1994)
- Simple aromatherapy: use of essential oils and other aromatic substances such as infused oils and tinctures in 'home remedies or household secrets' to ward off infections, as minor first – aid and to

promote general health and well-being; (Lawless, J; *The Complete Illustrated Guide to Aromatherapy*, Element Books, 1997).

⁷ Environmental applications refer to the use of essential oils with the intention of 'treating' the environment such as to sanitize, clean or disinfect as well as to annihilate or deter insects. Essential oils, while effective, are considered gentler to the environment thus providing a holistic approach to accomplish these tasks.

⁸ The concepts included in this definition are not new; in order to accurately reflect the current practice of Holistic Aromatherapy in the United States no methods of administration should be excluded.

⁹ Describing the spiritual effects of the Lotus absolute, **Christopher McMahon** says: "Regardless of one's place on the (spiritual) evolutionary ladder, the lotus always leads to higher evolution." (In Search of the White Lotus – Journey to India; *Aromatic Thymes*, Fall 1998, 6.3: 28)

¹⁰ Professionals who have worked towards developing a system for aromatherapy include:

Daniel Péroël who introduces a theoretical and philosophical foundation to OSMOBIOSIS as a new term and technique for the use of essential oils in his book *Natural Home Health Care Using Essential Oils* (Essential Science Publishing, Utah, 1998).

Kurt Schnaubelt first published in English, the work of D. Péroël and P Franchomme: the 'Structure-action diagram' approach to choosing essential oils (*Advanced Aromatherapy*, Healing Arts Press, 1995).

Rodolphe Baltz combines the concept of 'terrain', symptoms and main and secondary properties approach to choosing essential oils (*The Healing Power of Essential Oils*, Lotus Light, Shangri-La, 1996).

Other professionals have applied models such as Oriental Medicine concepts to aromatherapy in a holistic manner. They include **Gabriel Mojay** and **Peter Holmes**.

¹¹ Topical reactions are common on persons considered ATOPIC- i.e., who show reactions to common perfume and suffer from environmental allergies.

¹² **De Groot A C, Weyland J W (1993):** "Contact allergy to tea tree oil" *Contact Dermatitis*; 28:309.

--- **Schaller M, Korting HC (1995):** "Allergic airborne contact dermatitis from essential oils used in aromatherapy" *Clinical and Experimental Dermatology*; 20 (2); 143-145.

--- **Selvaag E, Erikson B, Thune O (1994):** "Contact allergy due to tea tree and cross-sensitization to colophony" *Contact Dermatitis*; 31: 124-125.

¹³ **Sheppard-Hanger S, Lisin G, Watt M, Moyler D (1995):** *The Aromatherapy Practitioner Reference Manual*, The Atlantic Institute of Aromatherapy, p. 56

Examples of irritant oils include: Allspice, ajowan, bay leaf clove bud and leaf, cassia, chervil, cinnamon horseradish, mustard, mints, and dwarf pine.

¹⁴ **Sheppard-Hanger S, Lisin G, Watt M, Moyler D (1995):** *The Aromatherapy Practitioner Reference Manual*, The Atlantic Institute of Aromatherapy, p. 58

Examples of sensitizing oils that are banned or restricted by IFRA include Alan root oil, Elecampane oil, Costus root, Opoponax, Peru Balsam, and Styrax gum

¹⁵ **Sheppard-Hanger S, Lisin G, Watt M, Moyler D (1995):** *The Aromatherapy Practitioner Reference Manual*, The Atlantic Institute of Aromatherapy, p. 60

Examples of Phototoxic oils include: Expressed bergamot, rue, cumin, lemon expressed, lime expressed, mandarin, bitter orange expressed, and lemon verbena.

¹⁶ **Sheppard-Hanger S, Lisin G, Watt M, Moyler D (1995):** *The Aromatherapy Practitioner Reference Manual*, The Atlantic Institute of Aromatherapy, p. 54;

Examples of oils that are toxic include: Boldo leaf, horseradish, mustard, savin, bitter almond, and mugwort.

¹⁷ NAHA Committees Reports, 1998-1999.

¹⁸ Sweet and wild marjoram, rosemary camphor, oregano and yarrow should be avoided in cases of asthma. (Sheppard-Hanger S, Lisin G, Watt M, Moyler D (1995): *The Aromatherapy Practitioner Reference Manual*, The Atlantic Institute of Aromatherapy, p. 67).

¹⁹ Juniper berry and branch, parsley seed, and ravenensare anisata should be avoided in cases of urinary problems or kidney disease. (Sheppard-Hanger S, Lisin G, Watt M, Moyler D (1995): *The Aromatherapy Practitioner Reference Manual*, The Atlantic Institute of Aromatherapy, p. 65).

²⁰ Dr. Valnet in *Practice of Aromatherapy* includes rosemary, fennel, hyssop, lavender stoechas, wormwood, and sage as epilepsy-inducing oils.

²¹ Cinnamon, clove, lemon verbena, commint and rosemary should be avoided in cases of gastric problems. (Sheppard-Hanger S, Lisin G, Watt M, Moyler D (1995): *The Aromatherapy Practitioner Reference Manual*, The Atlantic Institute of Aromatherapy, p. 65).

²² It is recommended to avoid the use of essential oils during pregnancy especially during the first three months. Except for those essential oils considered safe such as rose, neroli, lavender and chamomile. (Sheppard-Hanger S, Lisin G, Watt M, Moyler D (1995): *The Aromatherapy Practitioner Reference Manual*, The Atlantic Institute of Aromatherapy, p. 65).

²³ Schnaubelt K: *Medical Aromatherapy*, p. 225; Frog 1999.

²⁴ Von Frohlic E (1968): "A review of clinical, pharmacological and bacteriological research into Oleum spicae" *Weiner Medizinische Wochenschrift*; 15:345-350.

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²⁵ **Rees W D, Evans B K, Rhodes J (1979):** "Treating irritable bowel syndrome with peppermint oil" *British Medical Journal*; (6194): 835-836.

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²⁸ **Tisserand R (1988):** *Aromatherapy to Heal and Tend the Body*, Lotus Press; p. 84.

²⁹ Steam inhalations can be done in the bath or in the sink or from any container to which hot water has been added.

³⁰ There are many different types of micro diffusers. Some use pumps with glass nebulizers while others disperse the oils from a container such as a bottle. Aroma lamps are common and use either a candle or a light bulb to heat essential oils that have been added to water. As this solution gets hot, essential oils and water are evaporated into the air and thus can be inhaled. Aroma lamps are used for aromatic purposes only as the excessive heat is said to change the molecular structure of essential oils and to render their therapeutic actions ineffective.

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