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# Alternative Medicine

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**This is the first installment of a new section on Alternative Medicine. Alternative medicine practices are fast becoming the treatment of choice for many Americans, as will be discussed below. As clinicians devoted to rehabilitating patients to their fullest potential, it is an avenue that deserves further exploration into the benefits and controversies surrounding it. Future columns will delve further into the disadvantages, advantages, varying methods available, and current research in Alternative Medicine.**

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The work of Dr. David Eisenberg published in the New England Journal of Medicine in January 28, 1993, showed that 34% of the American public was using some form of treatment not taught in medical schools or residency programs. That landmark study is frequently quoted and needs to be updated to determine trends. Whatever the trend, up, down or the same, this is still a significant percentage of the population! There still remains a strong imperative to evaluate the clinical efficacy of various forms of unconventional treatments to assist health providers and consumers alike. However, many patients chose unconventional forms of treatments, especially for acute, subacute and chronic back and musculoskeletal diseases and ailments without reliable information on benefits and possible side effects.

After receiving a Congressional mandate to evaluate alternative medicine, the first challenge facing the National Institutes of Health (NIH) was in learning the nature of alternative medicine. This question was addressed by polling individuals in the various Institutes and Centers of the NIH to determine the scope of activity that might constitute alternative medicine.

The following taxonomy was developed:

* DIET/NUTRITION/LIFESTYLE CHANGES
  Macrobiotics
  Megavitamins
  Diets
  Changes in Lifestyle

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* MIND/BODY CONTROL
Art Therapy/Relaxation
—biofeedback
—counseling & prayer therapy
—guided imagery
—hypnotherapy
—sound/music therapy

* TRADITIONAL AND ETHNOMEDICINE
Acupuncture
Ayur Veda
Herbal Medicine
Homeopathic Medicine
Native American
Natural Products
Traditional Oriental Medicine

* STRUCTURAL AND ENERGETIC THERAPIES
Acupressure
Chiropractic Medicine
Massage Therapy
Reflexology
Rolfing
Therapeutic Touch

* PHARMACOLOGICAL AND BIOLOGICAL TREATMENTS
Anti-oxidizing Agents
Cell Treatment
Chelation Therapy
Metabolic Therapy
Oxidizing Agents
(ozone, hydrogen peroxide)

* BIO-ELECTROMAGNETIC APPLICATIONS

In spite of NIH's lack of knowledge of the phenomenon called alternative medicine, what has become evident is the increasing numbers of "alternative medicine studies" that have successfully undergone peer review in the various study sections at the NIH. For example, the National Institute on Aging supported a study on the use of Chinese Tai Chi in dealing with mild movement disorders in the elderly.

Some proponents of alternative medicine are unaware of methodological design problems that also face conventional research. One of the myths that is perpetrated by proponents of alternative medicine is that alternative or complementary medicine cannot be evaluated through conventional research methodologies.

Conventional research methodologies are characterized solely as being "double blind, randomized, placebo controlled, multi centered clinical trials". When doing clinical research, oftentimes the clinical question being asked may not necessarily conform to an investigation designed in the manner just described, especially in dealing with clinical interventions for back and musculoskeletal disorders. A double blind study where the patient and provider do not know whether the patient is getting the treatment "drug" or a placebo, is done to eliminate "bias" toward or against a particular treatment. This bias is felt to affect the conduct of a study either through participation by the patient as well as their belief in the "treatment". However, this methodological approach was designed to test pharmaceuticals and has clear limitations for other treatment interventions in conventional medicine. For example, when testing therapeutic interventions for coronary artery disease, it is impossible to "blind" the patient and provider in testing coronary angioplasty versus medical management versus surgery. However, one could do a double blind, placebo controlled study in testing the use of chelation therapy to reverse coronary artery disease by using an "inert" intravenous substance instead of EDTA, the usual chemical for chelation therapy.

The methodological approach is dictated by the clinical question being asked and how the therapy is being delivered and not necessarily if it is an alternative clinical practice.

A challenge to clinical researchers is the role for anecdotal data. Lyme disease was discovered by two mothers in Lyme, CT in the early 1970's not through laboratory analysis, but through empirical observation of what was going on in their community. The anecdotal reports, initially brushed off by local practitioners was later found to be reflecting a real clinical phenomenon that was going on in a particular neighborhood in Lyme, CT. The initial observations of the women

did not establish a definitive discovery of Lyme disease but certainly did help to establish a clinical direction for further research conducted by Drs. David Snydman and Allen Steere at Yale.

Clinical information lies along a spectrum, one end being anecdotal reports, the other end being good clinical trials.

The opportunities to explore the clinical benefits of therapies such as massage therapy or Rolfing for musculoskeletal disorders are emerging, especially in this era of managed care, which is demanding more cost effective, noninvasive and safe interventions. As we meet this new challenge, the benefits will be to both the patient and provider.