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Use of Alternative Approaches by Physical Therapists in Michigan

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USE OF ALTERNATIVE APPROACHES BY PHYSICAL THERAPISTS IN MICHIGAN

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ABSTRACT

The purpose of this research was to determine the prevalence of use of alternative treatments by physical therapists in Michigan, what approaches are used most often and if use of alternative techniques is associated with practice characteristics. A questionnaire listing 20 treatment techniques which met the operational definition of alternative was mailed to a random sample of 300 licensed physical therapists in Michigan. Number of modalities used, frequency of use for each alternative treatment, average caseload treated, and relationships between modality use and characteristic of practitioners were determined. Results showed 83% of respondents use one or more alternative modalities; 39% use five or more. The most commonly used techniques were myofascial release, strain/counterstrain, biofeedback, acupressure and visualization. Alternative treatment techniques were used by a significantly higher percentage of therapists treating orthopedic clients and therapists who had three to five years of experience.

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CHAPTER 1

INTRODUCTION

The practice of alternative medicine has become a significant force in the health care industry in the United States. In a study in *The New England Journal of Medicine*, Dr. David Eisenberg et al. (1993) concluded that one-third of the adult population in the United States had used an alternative treatment in 1990. Estimates of consumer expenditure on alternative health care range from $13.7 billion (Eisenberg et al., 1993) to $27 billion per year (Wallis, 1991). These figures compare to a total health care expenditure in 1990 of over $700 billion (Fosnaught, 1994b). In 1992, the impact of alternative medicine was recognized by the United States government when they established the Office of Alternative Medicine (OAM) as part of the National Institutes of Health (NIH). The purpose of the OAM is to promote the evaluation of alternative medical practices (Office of Alternative Medicine, National Institutes of Health [OAM, NIH], 1995).

The criteria used to define alternative medicine determine what practices are included as alternative. The OAM defines alternative medicine as:

'any medical practice or intervention that (a) does not have sufficient documentation . . . in the United States to show that it is safe and effective against specific diseases and conditions; (b) is not generally taught in medical schools; and (c) is generally not reimbursable for third-party billing.' (Fosnaught, 1994a, p. 49).

Some of the techniques used by physical therapists meet the criteria of this definition. In a report to the NIH, (Alternative Medicine: Expanding Medical Horizons, 1994) physical therapy is described as "part of mainstream medicine in this country, [however] its practitioners frequently use manual healing methods that are categorized as alternative" (p. 149). The prevalence of alternative therapy use by physical therapists has not been addressed in the literature.

The absence of sufficient documentation regarding alternative medical practices gives rise to several problems. First, clinicians lack knowledge on effectiveness of the techniques, the appropriate target patient populations and treatment parameters such as duration, frequency and intensity. The lack of knowledge could lead to inappropriate use of a technique, use of an ineffective technique or under utilization of a valid technique because it has not been adequately substantiated through research. Research which documents treatment outcomes will promote consumer health and safety. Second, the lack of research leads to problems with reimbursement by third-party payers. In today's health care market, there is an increased emphasis on financial accountability. The health care industry is under pressure to document the cost effectiveness of treatments with valid outcomes data. Demonstration of cost effectiveness can lead to acceptance of alternative practices for payment by insurers.

In order to direct these research efforts, it is important to know the patterns and prevalence of the use of alternative modalities by physical therapists. Such knowledge can focus research on efficacy and outcomes of specific techniques. This study will

address the prevalence and type of alternative methods used by physical therapists in Michigan.

CHAPTER 2

LITERATURE REVIEW

Much has been written about alternative therapies in both scientific journals and consumer magazines. The literature primarily addresses the philosophy and techniques of specific treatments presented with anecdotal evidence. Some research has been conducted on the efficacy of specific approaches, such as acupuncture and biofeedback. However, empirical evidence of cause-effect relationships of specific alternative methods based on controlled clinical trials is lacking in the literature. The need for such research is recognized by health care professionals and the U.S. government. A broader definition of acceptable research methods may facilitate the growth of knowledge concerning treatment methods. Specifically, qualitative research methods may be more suitable than quantitative methods for scientific examination of biopsychosocial effects of treatment techniques. In addition to the lack of efficacy studies, few studies have been conducted to determine what therapies are being used and the frequency of their use. Specifically, research on prevalence of use of alternative practices by physical therapists is lacking.

History of Alternative Medicine

Prior to the 1900's, there were many approaches to healing based on different beliefs on how to bring about health. The rise of the biomedical model of illness in the early 20th century unified the practice of medicine in Western cultures. The biomedical model is based on the theory that disease is caused by pathogens which disrupt normal functioning of the body. This theory, known as the germ theory of disease, gained popularity in the early 1900's following the development of the microscope and subsequent discovery of microbes. Medical treatments based on this theory focused on

eliminating the pathogens or altering the disrupted function to restore normal functioning of the body. Little attention was paid to the environmental or personal characteristics that contribute to disease processes. Practitioners of the germ theory became dominant and medical practices that did not fit within the framework of the biomedical model were identified as alternative (Sheridan, 1992).

The biomedical model of illness is the basis of contemporary orthodox medicine (Strohecker, (Ed.), 1994). Four principles provide the framework of this model: 1) mind and body are treated as separate entities, with disease affecting the body; 2) normal operation of the mechanistic body is disrupted by disease-causing organisms; 3) effects of disease on body functions are examined in isolation from the whole organism; and 4) health is considered to be the absence of disease (Sheridan, 1992).

Although the United States medical community is still dominated by orthodox practitioners, a significant percentage of Americans are turning to alternative methods (Eisenberg et al., 1993). The current interest in alternative approaches suggests a need for the U.S. medical community to re-evaluate the biomedical principles that are the basis of conventional practice and to study the efficacy of alternative methods.

Limitations of the Biomedical Model of Disease

The biomedical model has been applied successfully in preventing and treating disease and in developing diagnostic and surgical techniques. Medical advances which are based on the biomedical model of disease include: 1) vaccines for childhood diseases, such as polio and scarlet fever; 2) treatment for infectious diseases, such as tuberculosis and syphilis; and 3) the development of imaging technology and aseptic

surgical technique. Medical technology continues to be developed based on the biomedical model of disease. However, in conditions such as heart disease, chronic fatigue syndrome, cancer and arthritis, this model is incomplete. The limitations of the biomedical model are twofold. First, it fails to sufficiently account for the influences of environment, behavior and the mind on health and disease. Secondly, the model does not emphasize the role of health promotion.

Two recent trends — the changing pattern of illness and the rising cost of health care — highlight the limitations of the biomedical model. In the early 1900's, contagious diseases such as the tuberculosis, scarlet fever and pneumonia were the leading causes of death. Today, according to the U.S. Bureau of Census, the leading causes of adult deaths are heart disease and cancer, conditions related to life-style behaviors and the physiological effects of stress on cardiac and immune functioning (Sheridan, 1992). Medical advances contributed to a decrease in mortality from contagious diseases and a corresponding increase in life span. As life span increases, the effects of environment, behavior and lifestyle on health are revealed. The cost of sophisticated medical interventions such as open heart surgery, chemotherapy or organ transplant contributes to dramatically rising health care costs. The percentage of our gross domestic product (GDP) spent on health care has increased from 5% in 1960 to 13.9% in 1993 (National Center for Health Statistics, 1994). This figure does not account for the added cost of lost productivity as a result of illness. As costs continue to rise, prevention becomes a more economically efficient and socially effective option.

The Biopsychosocial Model of Health and Disease

The conceptual framework for a new model of health and disease is based on systems theory. Systems theory emphasizes the interrelatedness of not only the organ systems of the body but also the psychological and spiritual aspects of an individual, the family, community and society. Engel (1977) proposes a biopsychosocial model of health and disease based on a systems approach. Using this model, wellness (or health) and illness are on opposite sides of a continuum. Wellness is defined not as the absence of disease but rather a state of physical, mental and social well-being. From this perspective, health care must address not only the physiological state but also the psychological and social factors that enhance health and help prevent illness.

Many alternative treatment techniques address the psychological, social and physiological factors of illness and thus do not fit within the framework of the biomedical model. The biopsychosocial model of wellness and illness provides a theoretical basis in which to incorporate alternative approaches into mainstream medicine. In addition, medical interventions to maintain or promote health are also justified within the framework of the biopsychosocial model. A shift in theoretical perspective is taking place. Insurance companies have begun to recognize medical interventions that fall under a more holistic definition of health. For example, programs promoting lifestyle changes to reverse heart disease are accepted for payment by third-party payers such as Mutual of Omaha (Kronenberg et. al, 1994).

Defining Alternative Medicine

The terms alternative, unconventional, complementary or non-traditional medicine have been used to describe a wide variety of treatments. By default, alternative medicine can be defined as anything not orthodox (Wardwell, 1994). Gevitz (1988) defined 'unorthodox medicine' as "practices that are not correct, proper or appropriate or are not in conformity with the beliefs or standards of the dominant group of medical practitioners in a society." According to Eisenberg et al. (1993), unconventional therapies are defined as "medical interventions not taught widely at U.S. medical schools, or generally available at U.S. hospitals." The OAM definition expands on the preceding criteria to include: 1) not reimbursable by third-party payers and 2) lacking "sufficient" documentation of efficacy. The definition used by the OAM is stated in Chapter 1.

Treatments that are categorized as alternative vary widely with the definition. Based on pilot research, Eisenberg et al. (1993) identified 16 interventions that represented unconventional methods used in the United States. The most prevalent therapies used by the lay population were relaxation techniques, chiropractic treatment, massage and imagery.

A comprehensive classification of alternative medical practices used by the OAM outlines seven "fields of practice": 1) diet, nutrition and lifestyle changes; 2) mind/body interventions, which use the mind's capacity to affect the body; 3) alternative systems of medical practice, which range from self-care based on folk medicine to organized health care systems based on an alternative practice; 4) manual healing methods that use touch and manipulation to restore function; 5) pharmacological and biological treatments,

including drugs and vaccines not yet accepted by the mainstream medical community; 6) bioelectromagnetic applications that use electromagnetic fields to produce biological effects; and 7) herbal medicine. Examples of practices which are included in each of the categories are listed in Table 1 (Alternative Medicine: Expanding Medical Horizons, 1994). Many of the alternative methods used by physical therapists fall under the categories of mind/body interventions and manual healing.

Table 1: OAM Categories of Alternative Medicine

Diet, Nutrition, Lifestyle changes
- Macrobiotics
- High-dose Vitamin use
- Nutritional Supplements

Mind/Body Interventions
- Meditation
- Support Groups
- Imagery
- Yoga

Alternative Systems of Medical Practice
- Acupuncture
- Homeopathic medicine
- Traditional Oriental Medicine
- Ayurveda

Manual Healing Method
- Chiropractic medicine
- Massage Therapy
- Reflexology
- Therapeutic Touch

Pharmacological and Biological Treatments
- Anti-oxidizing agents
- Chelation Therapy
- Metabolic Therapy

Bioelectromagnetic Applications
- Blue-light Treatment
- Electroacupuncture
- Electromagnetic Fields

Herbal Medicine
- *Ginkgo biloba* Extract
- Ginseng root
- Witch hazel

Source, Alternative Medicine: Expanding Medical Horizons, 1994.

Prevalence of Alternative Medicine in the United States

In a landmark study, Eisenberg et. al (1993) surveyed Americans on their use of 16 alternative therapies. They concluded that "the frequency of use of unconventional therapy in the United States is far higher than previously reported." (p. 246). One-third of 1,539 respondents to Eisenberg's telephone survey reported using unconventional medicine at least once in a one-year period. Two-thirds of those who used unconventional medicine self-treated without visiting an alternative practitioner. The other one-third made an average of 19 visits to alternative practitioners. From the survey results, the researchers estimated the number of visits to alternative practitioners in 1990 was 425 million compared to 388 million visits to primary care physicians (family and general practitioners, pediatricians and internal medicine specialists). Other researchers report similar findings. In a poll conducted in 1991 for Time/CNN, 30% of respondents reported having tried some type of non-traditional therapy (Wallis, 1991).

Estimates of the cost of alternative medicine vary. Eisenberg et al. (1993) reports Americans spent $13.7 billion on alternative medicine in 1990. The average charge per visit was $27.60. Fifty-five percent of services were not reimbursed by third-party payers, 31 percent were partially paid by third-party payers and 14 percent were paid in full by third-party payers. Seventy percent of charges were paid out-of-pocket.

Prevalence of Alternative Medicine in Other Industrialized Countries

The European lay and professional communities are more accepting of alternative practices than the American public and medical professionals. Many practices that are considered alternative in the United States are perceived as mainstream in Europe.

Homeopathic remedies and acupuncture are primarily administered by medical doctors. Thirty-nine percent of French doctors and 20 percent of German doctors use homeopathic treatments. In Germany alternative medical practices are part of the medical board exams. In France and Germany, 30 percent of doctors regularly use herbal remedies (Ullman, 1993). In the Netherlands, 20 percent of the population has consulted with an alternative practitioner (Menges, 1994). In general, alternative medicine is more widely accepted and is practiced by the mainstream medical community.

The practice of medicine in the United Kingdom provides an example of the acceptance of alternative methods in Europe. In 1992, the British Medical Association (BMA) issued a report stating alternative medicine, even if not proven scientifically, is a viable and useful treatment approach when properly regulated. As a result of this position taken by the BMA, the British government permitted doctors to refer patients to practitioners of alternative medicine providing the doctor continued to manage the case (Booth, 1994). According to Ullman (1993), more than 40 percent of general practice physicians in the United Kingdom make referrals to homeopathic practitioners.

Alternative Practitioners

A method of classifying alternative practitioners has been proposed by Walter J. Wardwell (1994). Four classifications are based on adherence to the currently accepted medical model. Physicians form the core of the traditional model and are not included in any of the categories. The categories range from most to least subordinate to the physician's control. The first category of practitioners are ancillary (Greek for hand maiden). These professionals, who function solely under physician direction or

prescription, include nurses, physician's assistants and, in Michigan, physical therapists. Limited medical practitioners, the second category, practice "accepted" forms of medicine but may do so independent of physician referral or supervision. Examples are dentists, podiatrists, speech therapists and, in 30 states, physical therapists. The third category, marginal practitioners, describes providers who practice independent of physician referral and supervision, and who reject orthodox medical definitions of illness. Chiropractors, naturopaths and naprapaths are classified in this group. The final category of providers, quasi practitioners, are defined as "non-medical healers (who) use methods that have not been or cannot be empirically verified." (p. 1063). Examples cited are faith healers, shaman and medicine men.

In this classification scheme, physical therapists fall under either the ancillary or limited medical practitioner category depending on whether or not practice is independent of physician referral. Physical therapy is a young field in health care, evolving out of the Reconstruction Aides of World War I. Having stemmed from mainstream medicine and the biomedical model with a focus on exercise and manual techniques, the field of physical therapy is positioned between conventional and alternative medicine. "While physical therapy is considered part of mainstream medicine in this country, its practitioners frequently use manual healing methods that are categorized as alternative." (Alternative Medicine: Expanding Medical Horizons, 1994).

Alternative Medicine in Nursing

Much of the current literature by orthodox practitioners on the use of alternative approaches in health care is in the field of nursing. Nurses spend a large percentage of

their time in direct patient care, which gives them an opportunity to develop relationships with their patients. Booth (1994) suggests this patient/care giver relationship leads to greater opportunities to work holistically with the patient. Nursing has been described as an intermediate step between traditional and alternative medicine (Glaus, 1988). The literature suggests healing touch, also called therapeutic touch is a common modality being researched and used in the nursing profession (Booth, 1994; Benor, 1994; Glaus, 1988). Visualization, reflexology and relaxation techniques are three other modalities Glaus (1994) suggests be included in nursing education and practice. The prevalence of literature on alternative methods in nursing journals reflects the interest in alternative medicine by the nursing profession.

The Need for Research

Inherent in the definition of alternative is the lack of acceptance by the traditional medical establishment. The lack of empirical evidence to substantiate the safety and efficacy of each method is the main reason alternative approaches are not accepted. The need for research is recognized by the United States government, medical schools and private organizations.

To address this need, the government established the OAM in 1992 "to support research to evaluate alternative medical practices." (OAM, NIH, 1995). In 1993, the OAM received 800 letters of intent to apply for grants. In addition, two centers for alternative medicine research were established in 1994, a center for alternative treatment of HIV/AIDS and a center for research of treatment methods of addictions and related disorders (OAM, NIH, 1995). The OAM also coordinates research efforts on an

international level and gathers information on alternative medical practices. A report prepared for the NIH entitled Alternative Medicine: Expanding medical horizons (1994) "establishes a baseline of information on alternative medicine which may be used to direct future research and policy discussions" (p. x).

Medical schools also recognize the need for research and education on alternative medical practices through course offerings and establishing centers of research. For example, Harvard Medical School offers a course entitled "Non-conventional, Unorthodox Medical Techniques: Implications for Clinical Practice and Research," and "Complementary Healing Systems" is offered at Tufts University School of Medicine (Ulman, 1993). Columbia University College of Physicians and Surgeons established a center for alternative medicine in the Department of Rehabilitation Medicine (Kronenberg et al., 1994).

In a commentary on rehabilitation medicine and alternative therapies, Kronenberg et al. (1994) describes the medical specialty of Physical Medicine and Rehabilitation as already using the methods and philosophies of alternative medicine. According to Kronenberg et al. (1994), this specialty is "uniquely situated . . . to provide leadership in the growing area of alternative medicine" (p. 929). Physical therapists are among the providers who practice in the area of Physical Medicine and Rehabilitation. An opportunity exists for professionals in the field of physical therapy to contribute to research efforts in alternative medical practices.

The need to research alternative treatments and the potential role of physical therapists in supporting and conducting research has been established. To direct research

efforts, however, it is important to understand the prevalence of alternative practices by physical therapists and the treatments most widely used.

The Research Questions

This study addresses two research questions. What percentage of physical therapists are using non-traditional treatment approaches and which approaches are used most often? What characteristics of physical therapists are associated with use of alternative techniques? A survey of licensed physical therapists in Michigan was conducted to answer the stated questions. The authors hypothesized that most physical therapists use two or more alternative modalities in their practice. In addition, the authors hypothesized that use of alternative modalities is associated with treatment of orthopedic clients, outpatients, private practices and increases with years of practice as a physical therapist.

For the purpose of this study, the OAM's definition of alternative medicine was modified to fit the field of physical therapy, as follows:

> Any medical practice or intervention that (a) does not have sufficient documentation [i.e., clinical trials, large-scale studies supported by major institutions, biomedical models, or studies involving large populations over extended periods of time] in the United States to show that it is safe and effective; (b) is not generally taught in physical therapy curricula; and (c) is generally not reimbursable for third-party billing.

It was difficult to objectively establish which treatments used by physical therapists meet this definition. The treatments included in the questionnaire met at least

one of the criteria used to define an alternative therapy. The selection process for inclusion in this survey was based on practices classified as alternative in Alternative Medicine: Expanding Medical Horizons (1992), the study of alternative treatment use conducted by Eisenberg et al. (1993) and personal interviews with practicing physical therapists who use alternative methods.

The curricula presented by physical therapy educational programs vary. The American Physical Therapy Association (APTA) report on the criteria for accreditation of physical therapy education programs showed broad guidelines in areas of curricula and performance standards. Of the techniques listed in the report on accreditation criteria, biofeedback was the only one included in this study. Biofeedback was included because this technique is in the OAM's list of alternative methods.

The practice of massage by physical therapists was not considered an alternative treatment in this study because massage is a traditional part of the physical therapy curriculum. It is well documented in the literature as an effective way to increase local metabolism, decrease edema and inhibit muscle tone (Tappan, 1988). In addition, massage as practiced by licensed physical therapists is reimbursed by third-party payers.

In summary, the literature search revealed significant and growing use of alternative practices by Americans. The need for research to substantiate the efficacy of these alternative treatments was also established. However, research on alternative practices are used by physical therapists is lacking. This study assessed the prevalence of the use of alternative practices by physical therapists in Michigan for the purpose of directing future research efforts.

CHAPTER 3

METHODOLOGY

The design of this investigation was a descriptive correlational study. A mailed questionnaire was used to determine the extent of alternative therapy use by licensed physical therapists in Michigan. In addition, relationships between the use of alternative medicine and characteristics of practitioners were explored.

Subjects

The target population included all licensed physical therapists in Michigan who currently practice in direct patient care at least 20 hours per week. A mailing list of all licensed physical therapists in the state provided by the Michigan licensing agency was used as the population frame. Three hundred subjects were chosen from this population using a computerized random number generator.

Instrumentation

The instrument of measurement was a questionnaire designed by the authors. A pilot study was conducted to establish validity of the survey. Several revisions were implemented based on feedback from the pilot study. The questionnaire contained two parts. The first part consisted of demographic information and characteristics of practice: age, practice setting, type of patients treated and number of years in practice. The second part listed 20 non-traditional treatments with definitions (see Appendix A). For each of the listed treatments, respondents recorded if they had used the treatment with five or more patients within the last year. For each treatment used, respondents indicated the

percentage of patients treated with this approach. The final question allowed participants to list additional treatments used that they considered alternative.

Procedure

Following approval by the Grand Valley State University Human Subjects Review Committee, the pilot study was conducted. Twelve physical therapists participated in the pilot study. Participant selection was based on experience using alternative treatments and practice in Michigan. Participation was voluntary and required completing the survey and providing feedback to the researchers. Data from the pilot study were not used in this study.

The final questionnaire with cover letter (see Appendices B and C) was mailed November 6, 1995. Reminder post cards were sent out in late November. Return of the survey indicated the therapist's informed consent to participate in the study. Questionnaires returned by January, 1996 were included in the study. Therapists' names and addresses were kept confidential.

Advantages of Methodology

Obtaining the complete list of physical therapists through the state licensing agency allowed the authors to choose a random sample from the entire population of licensed therapists in Michigan. Mailing the survey was less costly and more time effective than gathering data either by a phone call or personal interview. In addition, this method minimized interviewer and interpreter bias by standardizing data collection.

CHAPTER 4

RESULTS

Data analysis

Three-hundred questionnaires were mailed. Eleven were returned as undeliverable as addressed. Of the remaining 289 surveys, 205 were returned for a return rate of 71%. One survey was unusable because most of the questions were unanswered. Forty-three surveys were excluded from data analysis because the respondents did not meet the inclusion criteria of a minimum of 20 hours per week in direct patient care. Therefore, a sample size of up to 161 was used for data analysis.

Data from the surveys was encoded and independently checked for accuracy by a third party. No errors were found. Questions not answered or partially answered were omitted. Questions in which multiple answers were given were also omitted with one exception. In response to the question regarding patient diagnosis grouping, an answer of both orthopedic and neurologic clients was categorized as treating both diagnoses. If the respondent gave treatment percentages in a range, the median value was used. Answers in non-whole numbers were rounded appropriately.

The prevalence of alternative modality use was measured by two methods. The first method determined the overall number of treatments used by respondents. Frequencies and percentages were calculated based on the number of alternative treatments used by the therapists. The second method determined the percentage of respondents using each modality and the average percentage of patients treated with the modality by those who use it. Confidence intervals and standard deviations were calculated.

In addition to reporting frequencies of alternative practice use by physical therapists, the authors described relationships between demographic variables and use of alternative medicine. Alternative therapy use was compared with: 1) diagnosis grouping of patients treated; 2) practice ownership; 3) type of patients (inpatient versus outpatient); and 4) number of years in practice. The statistical tests used for these comparisons included Pearson correlation coefficient, Chi square test (α=0.10) and differences of proportions test (α=0.10). Hypotheses stated previously were compared with the observed data.

The individual data regarding years in practice was reduced to categorical data. Three categories were chosen in advance of data analysis based on the assumption that significant changes occur in the first several years of practice as a physical therapist years.

Subject and Demographic Information

Forty-five men (28%), 111 women (69%) and 5 respondents who did not indicate gender (3%) completed the survey. The mean age of respondents was 34.7 years with a standard deviation of 8.28 years. Years in practice ranged from 1 to 33; the mean was 9.85 years. Table 2 displays a frequency table for number of years in practice as a physical therapist.

Table 2: Years in Practice as a Physical Therapist

Years in Practice	Frequency (n=161)	Percentage
0 - 2	27	16.77
3 - 5	30	18.63
6 - 8	27	16.8
9 - 11	19	11.8
12 - 14	22	13.7
15 - 17	11	6.8
18 and over	25	15.5

Sixty-eight percent of respondents treated clients on an outpatient basis; 32% treated inpatients. Sixty-one percent of therapists surveyed had a primarily orthopedic caseload and 23% served neurologic patients. Refer to Table 3 for more information regarding caseload by diagnosis grouping.

Table 3: Caseload by Diagnosis Grouping

Practice Setting	Frequency (n=161)	Percentage
Orthopedic	94	58.4
Neurologic	35	21.7
Other		
Both Ortho & Neuro	10	6.2
Geriatric	3	1.9
Other	15	9.3
Did not respond	4	2.5

In regards to practice ownership, 59% of respondents worked in hospital-based practice, 22% worked in private practice, 19% work in other practice settings as shown in Table 4.

Table 4: Practice Ownership

Practice Ownership	Frequency (n=161)	Percentage
Private Practice	35	21.7
Hospital Based	92	57.1
Other		
Home Health	9	5.6
Skilled Nursing Facility	9	5.6
School System	8	5.0
Other	7	4.4
Did not respond	1	0.6

Use of Alternative Methods

The first research question was what percentage of physical therapists are using non-traditional treatment approaches and which approaches are used most often. Eighty-three percent of respondents used one or more of the listed techniques. Thirty-nine percent of therapists used five or more of the alternative modalities. The number of alternative treatment techniques used by all but one respondent ranged from zero to 10 (out of the 20 listed choices). One respondent indicated using 17 of the listed modalities. Table 5 further defines this data. To be included in this calculation, therapists had to respond to all questions on the modality usage part of the survey. This criteria was met by 146 of the respondents.

Table 5: Number of Alternative Modalities Used by PTs.

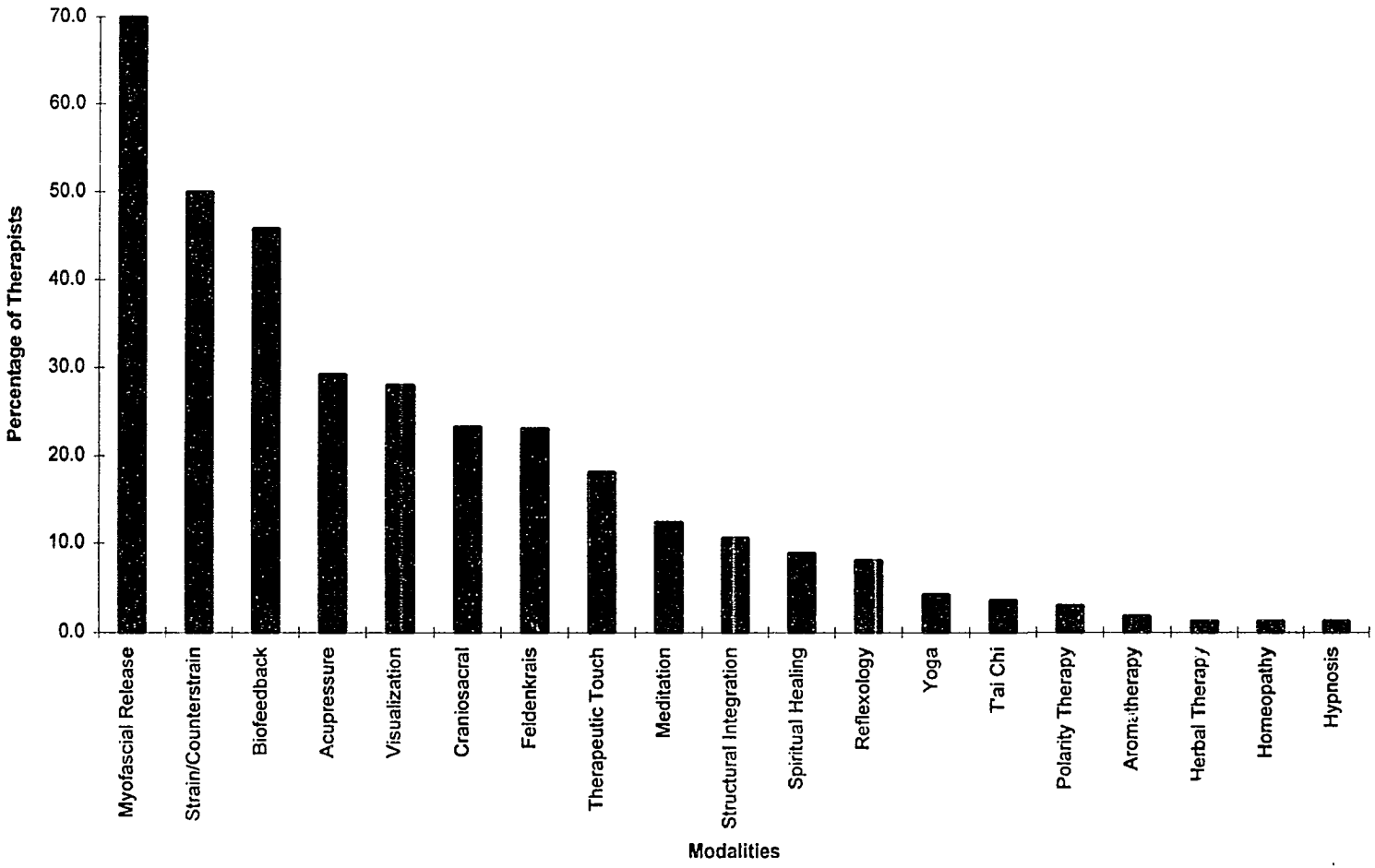
Number of Alternative Modalities used out of 20	Frequency (n=146)	Percentage of Respondents	% of PT's using the indicated number of modalities or more
0	25	17.1	--
1	14	9.6	82.9
2	24	16.4	73.3
3	22	15.1	56.8
4	19	13.0	41.8
5	10	6.8	38.8
6	13	8.9	21.9
7	8	5.5	13.0
8	5	3.4	7.5
9	2	1.4	4.1
10	3	2.1	2.7
17	1	0.7	0.7

The most commonly used treatments were myofascial release, strain/counterstrain, acupressure, biofeedback and visualization. See Table 6 for percentages of respondents reporting use of each of the 20 techniques. This information is also presented graphically in Figure 1. To further describe the frequency of use by practitioners, the average percentage of patients treated by those who use the technique was calculated. For example, of the 70% of therapists using myofascial release, an average of 35% of their patients were treated with this technique. This data is also included in Table 6.

Table 6: Percentage of Use of Alternative Modalities by Michigan Therapists and Average Percentage of Patients Treated Using Modality

	Percentage of physical therapists using the modality		Average percentage of patients treated by PT's using the modality	
Modalities	Percentage	95% Confidence Interval	Percentage	Standard Deviation
Myofascial Release	70.0%	+/- 7.1%	35.2%	27.9
Strain/Counterstrain	50.0%	+/- 7.7%	27.0%	25.3
Biofeedback	45.8%	+/- 7.8%	19.0%	19.8
Acupressure	29.2%	+/- 7.0%	19.5%	21.4
Visualization	28.0%	+/- 6.9%	21.6%	20.7
Craniosacral	23.3%	+/- 6.6%	22.5%	23.3
Feldenkrais	23.1%	+/- 6.5%	18.3%	21.1
Therapeutic Touch	18.2%	+/- 6.0%	51.7%	32.9
Meditation	12.5%	+/- 5.1%	12.9%	11.6
Structural Integration	10.6%	+/- 4.8%	24.9%	23.8
Spiritual Healing	8.9%	+/- 4.4%	35.5%	35.0
Reflexology	8.1%	+/- 4.2%	16.1%	18.2
Yoga	4.3%	+/- 3.2%	12.4%	6.4
T'ai Chi	3.7%	+/- 2.9%	16.7%	7.5
Polarity Therapy	3.1%	+/- 2.7%	36.2%	37.8
Aromatherapy	1.9%	+/- 2.1%	10.7%	9.0
Herbal Therapy	1.3%	+/- 1.8%	10.0%	0.0
Homeopathy	1.3%	+/- 1.8%	12.5%	10.6
Hypnosis	1.3%	+/- 1.8%	7.5%	3.5
Acupuncture	0	0	0	0

Figure 1: Alternative Modality Usage by Physical Therapists in Michigan



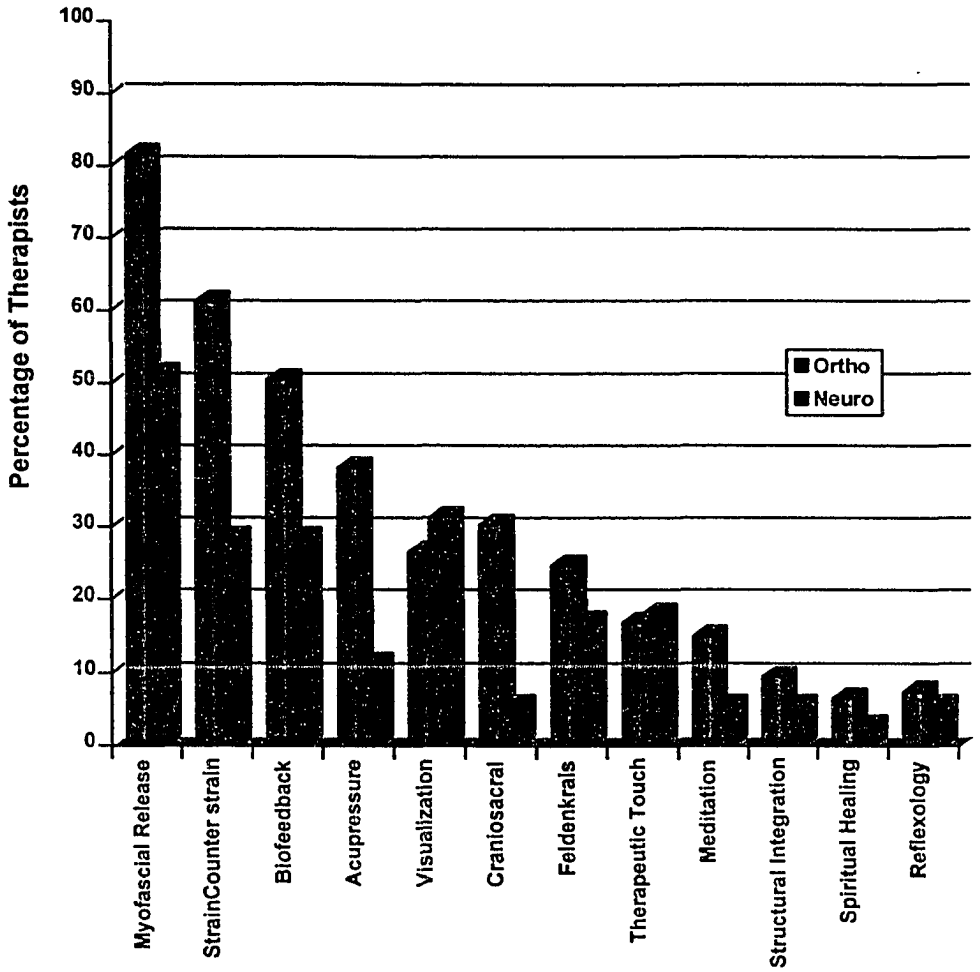
Relationships Between Use of Alternative Methods and Demographics

The second research question concerned the characteristics of physical therapists that are associated with the use of alternative techniques. To address this question, the percentage of physical therapists within a demographic category who use the alternative technique was calculated for each demographic category and modality. See Appendix D for values describing relationships between demographic categories and use of alternative methods.

Note: For the remainder of the study, results will be presented with regards to the 12 most common modalities.

Regarding caseload grouping, the authors hypothesized that use of alternative techniques is associated with treatment of orthopedic clients. The authors found that a higher percentage of therapists treating orthopedic clients use alternative techniques compared to therapists with a neurologic caseload. The difference between these categories was found to be statistically significant using Chi square analysis ($\chi^2_{(6)}$=12.52; ρ=0.05). When comparing individual modalities and caseload grouping, the following results were found using differences of proportions test. Therapists in orthopedics used myofascial release (Z=3.46; ρ=0.0003), strain/counterstrain (Z=3.30; ρ=0.0005), acupressure (Z=2.94; ρ=0.0016), craniosacral (Z=2.93; ρ=0.0017) and biofeedback (Z=2.22; ρ=0.0132) significantly more than therapists treating primarily neurologic clients. Although there was a difference in other modalities, as shown in Figure 2, the differences were not statistically significant.

Figure 2: Alternative Treatment Use and Diagnosis Grouping.

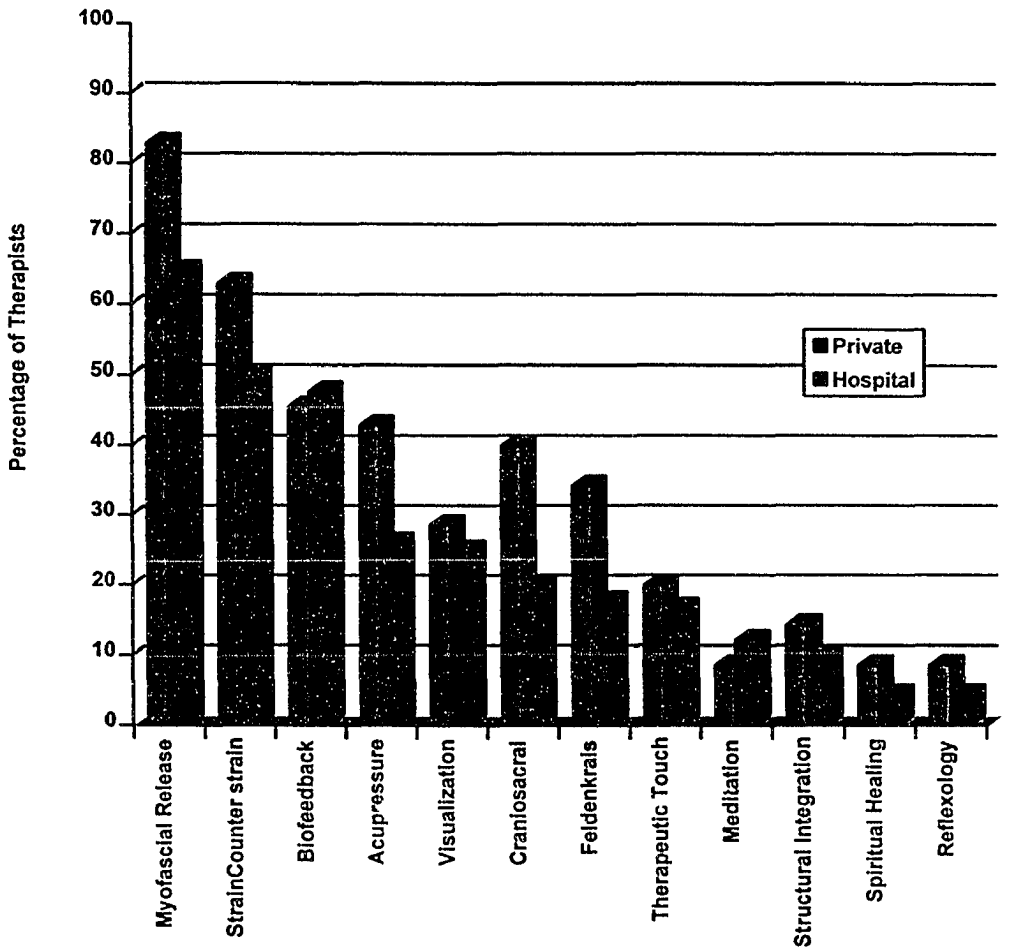


Regarding practice ownership, the authors hypothesized that use of alternative treatments is associated with private practice. As a general trend, this study did not show a statistically significant difference in the use of alternative modalities between private practice and hospital-based practice using chi square analysis. However, according to differences in proportions test, therapists working in private practice used craniosacral ($Z=2.30$; $\rho=0.0107$), Feldenkrais ($Z=2.02$; $\rho=0.0217$), myofascial release ($Z=1.98$;

ρ=0.0239) and acupressure (Z=1.83; ρ=0.0336) significantly more than hospital-based therapists.

Figure 3 compares use of alternative modalities between therapists in private practice and therapists in hospital-based practice.

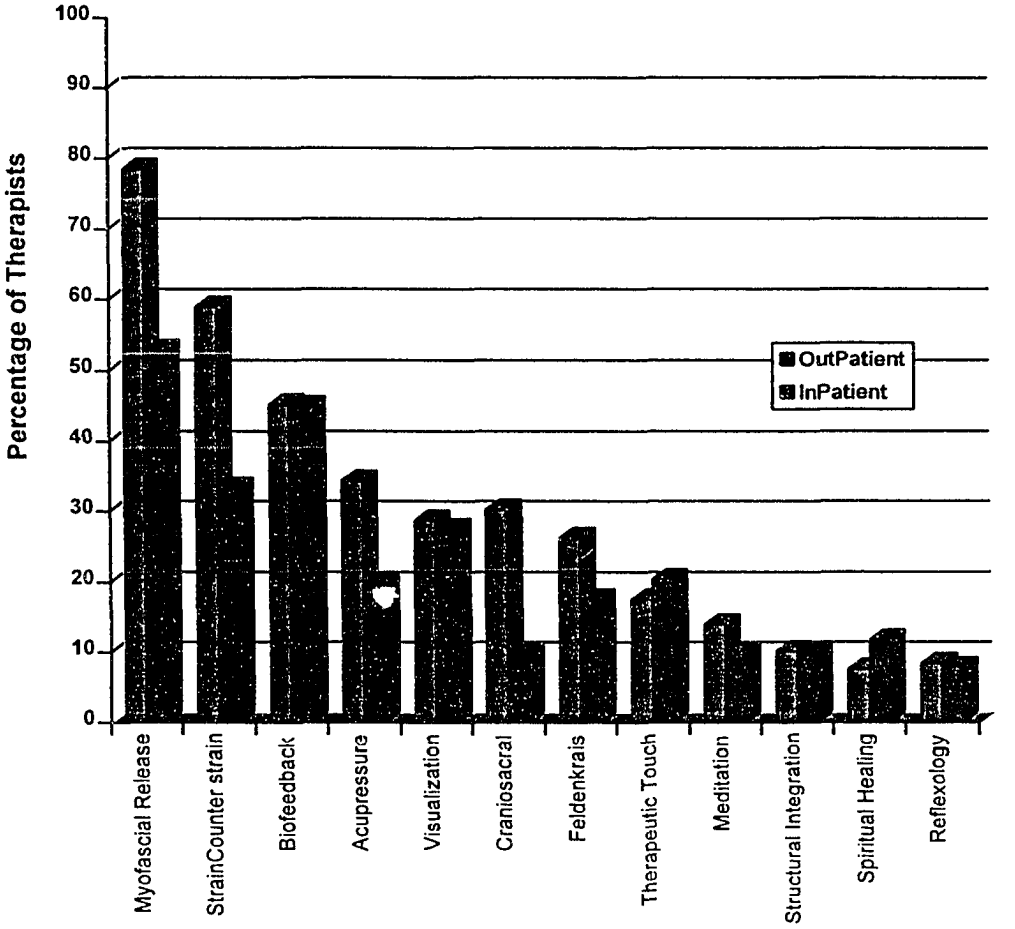
Figure 3: Alternative Treatment Use and Practice Ownership



Regarding patient type, the authors hypothesized use of alternative techniques is associated with treatment of outpatients. As a general trend, this study did not show a

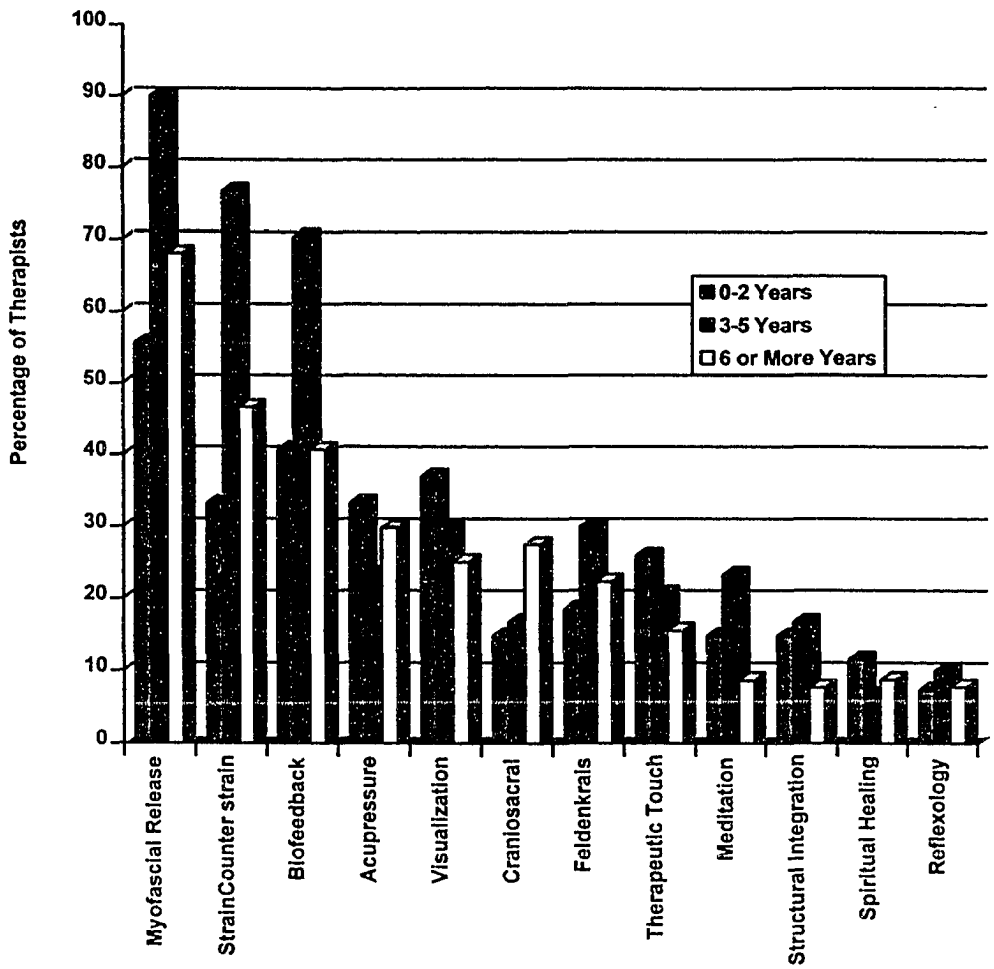
statistically significant difference in alternative modality use between therapists treating outpatients and therapists treating inpatients. However, using differences of proportions test, outpatient therapists do use the following modalities significantly more than inpatient therapists: myofascial release ($Z=3.29$; $\rho=0.0005$), strain/counterstrain ($Z=3.01$; $\rho=0.0013$), craniosacral therapy ($Z=2.82$; $\rho=0.0024$) and acupressure ($Z=1.90$; $\rho=0.0287$). Figure 4 displays the percentages of alternative modality use by therapists in outpatient settings versus inpatient settings.

Figure 4: Alternative Treatment Use and Patient Type



Regarding years in practice, the researchers hypothesized that use of alternative modalities would increase with years of practice. Pearson correlation coefficient test did not show a linear relationship between these variables (Υ=–0.193). However, a Chi square analysis using three categories of experience — 0-2 years, 3-5 years and 6 or more years — did show a significant relationship between use of alternative methods and years in practice ($\chi^2_{(2)}$=5.695; ρ=0.058). As a general trend, physical therapists used fewer alternative methods in the first two years of practice. Use significantly increased between the third and fifth years of practice, then decreased after 6 years of practice. Figure 5 shows the differences in use of alternative modality by therapists in three categories of practice experience.

Figure 5: Alternative Treatment Use and Years in Practice



Correlations Between Use of Modalities

In this study, researchers also examined relationships between modalities. Correlation coefficients were calculated in a pair-wise fashion to determine if use of one modality was associated with use of another modality. A Pearson correlation matrix is presented in Figure 6 with the twelve most commonly used modalities. The correlations ranged from 0.005 to 0.462.

Figure 6: Correlation Matrix

	Myo	StrC.	Biof.	Acu.	Visu.	Cran.	Feld.	TheT	Med.	StruI.	SpiH.	Refl.
Myofascial Release	1.00											
Strain/Counterstrain	.462	1.00										
Biofeedback	.308	.271	1.00									
Acupressure	.295	.315	.197	1.00								
Visualization	.098	.180	.168	.209	1.00							
Craniosacral	.362	.369	.143	.239	.125	1.00						
Feldenkrais	.165	.256	.169	.142	.226	.295	1.00					
Therapeutic Touch	.162	.179	.068	.265	.253	.408	.174	1.00				
Meditation	.206	.192	.328	.177	.402	.150	.241	.322	1.00			
Structural Integration	.137	.141	.113	.135	.011	.146	.099	.258	.115	1.00		
Spiritual Healing	.012	.005	.122	.099	.259	.042	.096	.271	.364	.036	1.00	
Reflexology	.145	.116	.024	.215	.124	.216	.162	.162	.026	.268	.005	1.00

The authors found the following relationships in the data set:

- 100% of respondents who used craniosacral also used myofascial release.
- 85% of respondents who used biofeedback also used myofascial release.
- 83% of respondents who used craniosacral also used stain/counterstrain.
- 75% of respondents who used meditation also used visualization.
- 74% of respondents who used acupressure also used therapeutic touch.
- 56% of respondents who used myofascial release also used biofeedback.
- 46% of respondents who used Feldenkrais also used craniosacral.
- 46% of respondents who used craniosacral also used Feldenkrais.
- 44% of respondents who used strain/counterstrain also used acupressure.

Comments By Respondents

Subjects were given an opportunity to list and explain any other alternative treatment modalities used. Many additional modalities were listed. A complete list of responses and the number of respondents who reported using the modality are included in Table 7.

Table 7: Alternative Modalities Used By Respondents Not Included In Survey

Orthopedic manual therapy (3)
Spinal mobilization (3)
Microcurrent electrical stimulation (2)
Muscle Energy (2)
Myofascial unwinding (2)
Balancing chakras (1)
Bioenergetics (1)
Biomagnetics (1)
Zero balancing (1)
Vectoring (1)
Cyriax transverse friction massage (1)
Martial arts (1)
McConnell patello-femoral taping (1)
McKenzie (1)
Medical exercise therapy (1)
Osseous integration (1)
Aquatic therapy (1)
Positional release (1)
Somatoemotional release (1)

CHAPTER 5

DISCUSSION

The purpose of this study was to examine the use of alternative treatments by physical therapists in Michigan. Analysis of responses indicates that more than 80% of physical therapists in Michigan use one or more alternative techniques. Alternative techniques are used by a significantly higher percentage of therapists who treat orthopedic clients and by therapists with 3 to 5 years experience. Alternative methods are also used by a higher percentage of therapists who treat outpatients and therapists who practice in a private clinic, however these differences in percentage were not found to be statistically significant.

Prevalence of Alternative Approaches

This study is unique in assessing the use of alternative medicine by physical therapists. The study conducted by Eisenberg et al. (1994) assessed the reported use of alternative medical practices by the American public. Direct comparison of Eisenberg's results with the results of this study is not applicable due to differences in populations. However, the results of this study do not contradict the results of Eisenberg's survey. Prevalence of alternative treatment methods is significant in reported use by both the American public and Michigan physical therapists.

The five most common alternative techniques were used by more than 25% of survey respondents. Since most of these modalities are not included in traditional physical therapy curricula, the extent to which some of these techniques are used is surprising. There are many possible explanations for the high reported use of alternative

techniques by Michigan physical therapists. The authors propose the following explanations: different interpretations of a popular technique such as myofascial release; successful application of techniques promoting continued and growing use of techniques; high visibility and popularity of continuing education courses on alternative treatments and a large patient population with chronic conditions who seek these treatments.

The high reported use of some of the alternative techniques leads to several questions: where is the knowledge of the technique gained; how are the techniques learned; what are the established protocols; and how much variability exists in treatment application.

To further describe the frequency of use, an average percentage of physical therapists' caseload treated with each modality was determined. Refer to Table 6 on page 25 for these values. High standard deviations indicate great variability among therapists in the use of any particular treatment.

Relationships Between Use of Alternative Methods and Characteristics of Practitioners

According to this study, a significantly higher percentage of therapists treating orthopedic patients use alternative methods when compared to therapists treating neurologic clients. The physiological problems addressed by physical therapy in treatment of orthopedic clients are varied but generally involve musculoskeletal dysfunction. Many of the alternative methods used in the field of physical therapy are manual techniques with proposed effects on musculoskeletal function.

Reported use of the technique of visualization was equally high among both orthopedic and neurologic therapists. This technique may have a wider application and can be combined with other treatment techniques such as gait training and therapeutic exercise.

A higher percentage of therapists working in private practice use alternative techniques when compared to therapists in hospital-based practices, through this was not found to be statistically significant. Therapists working in private practices are often treating orthopedic clients on an outpatient basis. These two characteristics have been associated with a higher use of alternative techniques and may contribute to a higher use in private clinics. In addition, therapists in private practices may have moved into a private setting in order to break from a more traditional physical therapy practice. Therapists in private practice may also cater to patients for whom traditional methods have not been successful.

As a general trend, therapists treating outpatients used a higher percentage of alternative treatments than therapists treating inpatients, though this was not found to be statistically significant. Some of the alternative modalities require longer treatment times and a quiet, private environment which may be better suited to an outpatient setting. In addition, clients seen on an outpatient basis are more likely to be in a chronic disease state. Alternative modalities may be used more often in outpatient settings because some of the techniques address social and psychological factors which accompany chronic conditions. Inpatients are more likely to be in an acute or subacute phase of disease and physical therapy interventions focus on preventing complications and retraining

functional activities such as bed mobility, transfers and ambulation. These interventions are part of traditional physical therapy practice.

The absence of a linear relationship between use of alternative modalities and years in practice was surprising. The authors believed that as a therapist increases in experience there would be more opportunities to learn and use alternative approaches. Survey results indicate that use of alternative techniques is higher between the third and fifth year of practice then decreases after six years in practice. This trend may be due to differences in educational background occurring across time or differences attributable to experience in the field.

One modality, craniosacral therapy, did not follow the general trend. Use of this technique increased consistently with increasing years in practice. This may occur because this technique requires a high level of manual skill which is acquired through experience. Once this high degree of skill is acquired, therapists may be more inclined to continue using the technique. The linear trend also may be related to successful treatment using this technique.

When comparing demographic variables and individual alternative treatment methods, a statistically significant difference was determined only for the more commonly used modalities. Although there were differences in the use of other modalities, the sample size was not large enough to calculate statistical significance. In fact, greater differences were found between categories of practitioners and some of the treatments used less frequently. For example, therapists treating orthopedic clients use

meditation more than twice as much as therapists treating neurologic clients. If the sampled population was larger, this difference might be statistically significant.

Correlations Between Use of Modalities

To determine if relationships existed between modalities, a correlation matrix was calculated. From this analysis, use of craniosacral appears to be a strong indicator of use of other alternative modalities, such as myofascial release and strain/counterstrain. This occurrence may be due to craniosacral being an advanced technique, often learned as part of a continuing education series, which includes myofascial release and strain/counterstrain at an intermediate level.

Another interesting correlation exists between meditation and visualization. Seventy-five percent of therapists using meditation also use visualization. Therapists may be combining these two techniques in the same treatment.

Limitations

The study population was limited to Michigan physical therapists, so inferences can be made only about this population. In addition, a limited number of alternative methods were included in the questionnaire. Other alternative techniques are used by surveyed therapists as evident by the additional responses received on the questionnaire. Refer to Table 7 on page 35 for a complete list.

Bias may have been introduced in the results due to the percentage of sample population who did not return the questionnaire. Physical therapists who received a questionnaire but did not return the survey may not have used any alternative techniques. Thus the results of the study may be higher than the actual population. In addition, bias

may have been introduced due to differing definitions of the alternative modalities used by practicing physical therapists. Even though definitions were provided they may have been overlooked or ignored.

In practice, these alternative treatments have various levels of acceptance by mainstream medicine. Some treatment approaches such as therapeutic touch, are poorly accepted by mainstream medicine. Others such as biofeedback are more widely accepted. Due to the subjective nature of ranking modalities according to the degree of acceptance by the traditional medical community, the researchers chose to treat all modalities as equally alternative. Therefore, this study did not attempt to gauge the extent to which physical therapists diverge from mainstream medicine.

Determining the percentage of therapists who use each technique is a limited representation of the prevalence of the technique. There is great variability in the clinical use of any treatment modality. Estimating the importance of a treatment technique is difficult due to this variability. The authors assessed the extent to which therapists use any particular technique through percentages of patients treated with the given technique. This percentage was most likely estimated without reference to patient records and only partially assesses the extent of use.

Implications and Suggestions for Further Research

This research identifies specific techniques often used by physical therapists in Michigan. The prevalence of some alternative techniques justifies the need for research on efficacy and treatment guidelines. Survey results also support focusing research efforts in areas that are more meaningful to the practicing therapist such as myofascial

release, strain/counterstrain, acupressure, biofeedback, visualization, craniosacral and Feldenkrais.

In addition, research in nationwide prevalence is needed. To the best of the author's knowledge, no prior research has been published on the use of alternative treatments by physical therapists. In fact, no comparable studies were available for nurses, physicians or other allied health professionals.

Summary

In summary, alternative treatment techniques are used by a majority of physical therapists practicing in Michigan. The most commonly used techniques are myofascial release, strain/counterstrain, acupressure and biofeedback. Use of alternative methods is associated with treatment of orthopedic clients, outpatient settings, work in a private practice and with therapists that have 3 to 5 years experience.

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APPENDIX A

GLOSSARY

GLOSSARY

Acupressure: Application of pressure to meridian points for stimulation or sedation of these points.

Acupuncture (Shiatsu, Tsubo, Jin Shin Jyutsu, Jin Shin Do): Stimulation of meridian points (usually invasive) for therapeutic purposes.

Aromatherapy: Use of aromatic essential oils extracted from plants and herbs to treat a wide variety of conditions through the olfactory receptors.

Biofeedback: Use of sensory feedback (usually visual or auditory in form) to enhance awareness of a physiological function.

Craniosacral: Manipulation of the bones of the skull to treat a range of conditions.

Feldenkrais: A specific method which uses verbal direction, touch and imagery to guide an individual's awareness of existing and alternative movement patterns.

Herbal therapy: Use of plants or plant extracts to promote health.

Homeopathy: Ingestion of highly diluted substances derived from minerals, plants or animals which induce symptoms similar to a disease profile, and act to stimulate the body's natural healing processes.

Hypnosis: Process which uses both the power of suggestion and trance like state to access deep levels of the mind.

Meditation: The practice of relaxing the body and calming the mind often by focusing on a single thought.

Myofascial Release: Manipulation of fascia to release tension or trigger points to relieve pain and promote good health.

Polarity Therapy: Use of touch, diet, movement and self awareness to enhance the flow of the human energy field.

Reflexology (Zone Therapy): Manipulation of specific zones on the foot, hand or ear which are related to specified organs for purposes such as pain relief.

Spiritual Healing: The belief that sickness can be overcome by the power of the mind or the belief in a higher power.

Strain/Counterstrain: Use of manual techniques to relieve pain and facilitate proper biomechanics through normalization of inappropriate proprioceptive activity.

Structural Integration (Rolfing): Manipulation of the body's fascia to restore normal posture and function.

Therapeutic Touch: Use of interpersonal energy transfer for the purpose of healing.

T'ai Chi: A slow rhythmic form of exercise based on a Chinese martial art.

Yoga: "A way of life that includes ethical precepts, dietary prescription, and physical exercise."

Visualization: Conscious formulation of mental images for a therapeutic end.

APPENDIX B

COVER LETTER

November 6, 1995

Dear Physical Therapist:

I am writing to you on behalf of two physical therapy students from Grand Valley State University. In partial fulfillment of the requirements for a Master of Science degree in Physical Therapy, these students are completing a research thesis. The research question addressed by these students concerns the use of non-traditional treatment approaches by physical therapists.

Enclosed is a questionnaire to gather information necessary to complete the data collection of this research. The survey will take approximately 10 minutes to complete. Participation in the study is voluntary. By completing and returning the survey in the enclosed stamped envelope, you are indicating informed consent to participate in the study. Your participation is vital to the success of this research. All participants will be kept strictly confidential. Your name and address will not be released.

To be included in the study, the questionnaire must be mailed by Friday, January 12, 1996.

Thank you for your time and consideration of this request.

Sincerely,

Jane Toot, P.T., Ph.D.
Director of Physical Therapy
Grand Valley State University

APPENDIX C

QUESTIONNAIRE

Please Answer The Following Questions As Accurately As Possible.

Part 1. General Information Section

1. Are you currently practicing as a Physical Therapist spending 20 or more hours with direct patient care (circle one):

   NO [If no, stop here and please return your unanswered survey]
   [It is important that your unanswered survey is returned.]

   YES [If yes, please continue.]

2. Age _____ (optional)

3. Gender (optional) **Female** **Male**

4. You primarily treat clients with the following types of disorders (circle one):

   Orthopedic **Neurological** **Other** _____

5. You primarily work in (circle one):

   Private practice **Hospital based practice** **Other** _____

6. You have practiced as a Licensed Physical Therapist for _____ years.

7. You primarily work in (circle one) **Out-Patient** **In-Patient**

Part 2. Modality Usage

For the following questions, A through T, please circle **YES** if you have used the listed mode of treatment on **five or more patients within the past year** in your practice as a Physical Therapist. *If you mark YES, please indicate the overall percentage of patients you treat using this modality. If NO, please continue to the next question.*

Example: **Moist Heat**

NO **YES** _____%

A. **Acupressure:** Application of pressure to meridian points for stimulation or sedation of these points.[1]

NO **YES** _____%

B. **Acupuncture (Shiatsu, Tsubo, Jin Shin Jyutsu, Jin Shin Do):** Stimulation of meridian points (usually invasive) for therapeutic purposes.[1]

NO **YES** _____%

PLEASE CONTINUE ON REVERSE SIDE

C. **Aromatherapy:** Use of aromatic essential oils extracted from plants and herbs to treat a wide variety of conditions through the olfactory receptors.[2]

NO YES _____%

D. **Biofeedback:** Use of sensory feedback (usually visual or auditory in form) to enhance awareness of a physiological function.

NO YES _____%

E. **Craniosacral:** Manipulation of the bones of the skull to treat a range of conditions.[2]

NO YES _____%

F. **Feldenkrais:** A specific method which uses verbal direction, touch and imagery to guide an individual's awareness of existing and alternative movement patterns.[1]

NO YES _____%

G. **Herbal Therapy:** Use of plants or plant extracts to promote health.[2]

NO YES _____%

H. **Homeopathy:** Ingestion of highly diluted substances derived from minerals, plants or animals which induce symptoms similar to a disease profile, and act to stimulate the body's natural healing processes.[2]

NO YES _____%

I. **Hypnosis:** Process which uses both the power of suggestion and trance like state to access deep levels of the mind.[2]

NO YES _____%

J. **Meditation:** The practice of relaxing the body and calming the mind often by focusing on a single thought.[1]

NO YES _____%

K. **Myofascial Release:** Manipulation of fascia to release tension or trigger points to relieve pain and promote good health.

NO YES _____%

L. **Polarity Therapy:** Use of touch, diet, movement and self awareness to enhance the flow of the human energy field.[1]

NO YES _____%

M. **Reflexology (Zone Therapy):** Manipulation of specific zones on the foot, hand or ear which are related to specified organs for purposes such as pain relief.[1]

NO YES _____%

N. **Spiritual Healing:** The belief that sickness can be overcome by the power of the mind or the belief in a higher power.[3]

NO YES _____%

O. **Strain/CounterStrain:** Use of manual techniques to relieve pain and facilitate proper biomechanics through normalization of inappropriate proprioceptive activity.[4]

NO YES _____%

P. **Structural Integration (Rolfing):** Manipulation of the body's fascia to restore normal posture and function.[1]

NO YES _____%

Q. **Therapeutic Touch:** Use of interpersonal energy transfer for the purpose of healing.[1]

NO YES _____%

R. **T'ai Chi:** A slow rhythmic form of exercise based on a Chinese martial art.[5]

NO YES _____%

S. **Yoga:** "A way of life that includes ethical precepts, dietary prescription, and physical exercise."[2]

NO YES _____%

T. **Visualization:** Conscious formulation of mental images for a therapeutic end.[6]

NO YES _____%

Please list and explain any other alternative treatment modalities you use.

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(6) Fosnaught, M. (1994, September). The quest for wellness. *PT Magazine*, pp. 38-44.

APPENDIX D

DATA TABLE

Percentage of Respondents within Demographic Category using Alternative Modality

Modality	Ortho	Neuro	Private	Hospital	Out Patient	In Patient	Year of experience 0 - 2	3 - 5	6 or more
Myofascial Release	81.7%	51.4%	82.9%	64.8%	78.5%	52.9%	55.6%	90.0%	68.0%
Strain/Counterstrain	61.3%	28.6%	62.9%	50.0%	58.9%	33.3%	33.3%	76.7%	46.6%
Biofeedback	50.6%	28.6%	45.5%	47.7%	45.2%	44.9%	40.7%	70.4%	40.6%
Acupressure	38.3%	11.4%	42.9%	26.1%	34.3%	19.6%	33.3%	23.3%	29.8%
Visualization	26.6%	31.4%	28.6%	25.0%	28.7%	27.5%	37.0%	30.0%	25.0%
Craniosacral	30.4%	5.7%	40.0%	20.0%	30.2%	9.8%	14.8%	16.7%	27.5%
Feldenkrais	24.7%	17.1%	34.3%	17.6%	26.2%	17.6%	18.5%	30.0%	22.3%
Therapeutic Touch	17.0%	18.2%	20.0%	16.7%	17.6%	20.4%	25.9%	20.7%	15.5%
Meditation	15.1%	5.7%	8.6%	12.1%	14.0%	9.8%	14.8%	23.3%	8.7%
Structural Integration	9.6%	5.7%	14.3%	9.8%	10.2%	9.8%	14.8%	16.7%	7.7%
Spiritual Healing	6.6%	2.9%	8.6%	4.4%	7.6%	11.8%	11.5%	6.7%	8.8%
Reflexology	7.5%	5.7%	8.6%	4.4%	8.4%	7.8%	7.4%	10.0%	7.8%
Yoga	2.1%	5.7%	8.6%	1.1%	3.7%	5.9%	7.4%	3.3%	3.8%
T'ai Chi	5.3%	0	2.9%	3.3%	4.6%	2%	0	3.3%	4.8%
Polarity Therapy	4.3%	0	5.7%	2.2%	4.7%	0	0	6.7%	2.9%
Aromatherapy	1.1%	0	0	0	0.9%	3.9%	7.4%	0	1.0%
Herbal Therapy	0	0	0	1.1%	0	3.9%	3.7%	3.3%	0
Homeopathy	1.1%	0	2.9%	0	0.9%	2.0%	3.7%	0	1.0%
Hypnosis	1.1%	0	0	0	0.9%	2.0%	3.7%	0	1.0%
Acupuncture	0	0	0	0	0	0	0	0	0