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Michigan Advance Practice Nurses' Attitudes and Practice Patterns Toward Alternative Therapy

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ADVANCE PRACTICE NURSES' ATTITUDES AND PRACTICE PATTERNS TOWARD ALTERNATIVE THERAPIES

By

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ABSTRACT

ADVANCE PRACTICE NURSES' ATTITUDES AND PRACTICE PATTERNS TOWARD ALTERNATIVE THERAPIES

By

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Patient use of alternative/complementary therapies in conjunction with standard medicine has become more common in recent years. Increased use of alternatives has spawned further investigation, but published studies have focused on physician use and attitudes towards alternative therapies (AT). This exploratory study addressed advance practice nurses (APNs) functioning as primary care providers and examined attitudes toward alternative therapy as well as referral/practice patterns. Data were collected from 65 licensed APNs practicing in Western Michigan. The majority held a negative attitude towards AT (as defined by this study); however, in actuality, attitudes were predominately neutral. Positive attitudes were shown to relate to positive behaviors. But negative attitudes were nearly evenly split between positive and negative referral/practice patterns. Overall, mind-body interventions were referred/practiced more than other clusters of AT. APNs can use these findings to explore AT, raise awareness, and stimulate both personal and client education.

I would like to dedicate this thesis to

my husband, Larry, whose love, support and

computer expertise has helped me through this journey

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This thesis would not have been possible without the support, patience, and encouragement of my committee: Chairperson, Gwen Wyatt RN, PhD; Rachel Schiffman RN, PhD; and Brigid Warren RN, MSN.

Also noted is that my family, peers and colleagues have supported me in my struggle to be all I want to be.

TABLE OF CONTENTS

	Page
LIST OF TABLES	vii
LIST OF FIGURES	viii
INTRODUCTION	1
Statement of the Problem	3
Research Questions	3
Literature Review	4
Alternative Therapies	4
Attitudes	7
Practice Pattern	9
Attitudes and Referral/Practice Patterns	10
Theoretical Framework	15
Proposed Model	16
Methods	17
Study Design	17
Sample	17
Operational Definitions	19
Instrument	21
Data Collection Procedure	22
Data Analysis	22
Protection of Human Rights	23
Assumptions	24
Limitations	24
Results	24
Demographic Characteristics	24
Attitudes	26
Referral/Practice Patterns	27
Clusters and Referral/Practice Patterns	29
Discussion	30
Sample	30

Attitudes 31
APN Referral Patterns 35
APN Practice Patterns 37
Attitude and Referral/Practice Patterns 41
Clusters 41
Azjen and Fishbein (1967) Theory 42

Implications 43
Implications for Practice 43
Implications for Education 45
Implications for Research 47

Summary 49

APPENDIX A 50
APPENDIX B 53
APPENDIX C 55
APPENDIX D 56
APPENDIX E 57

LIST OF REFERENCES 58

LIST OF TABLES

Table		Page
1	Demographic Characteristics	25
2	Rank Order of Referred Alternative Therapies	28
3	Rank Order of Practiced Alternative Therapies	28
4	Cross-Tabulation and Chi-Square Analysis of Attitudes and Pattern for Alternative Therapies	29
5	Referred/Practiced Therapies by Clusters	31

LIST OF FIGURES

Figure		Page
1	Adaptation of Ajzen and Fishbein (1967) Theory	16

INTRODUCTION

Alternative therapies (AT) have had an important role in the care of people with health problems in this country (Murray & Rubel, 1992). Recently, Eisenberg, Kessler, Foster, Norlock, Calkins, and DeBlanco (1993) stated that $13.7 billion were spent on AT in 1990. This increase in the use of AT by clients and client interaction with advance practice nurses (APNs) were the areas of interest of this research. The purpose of this study was to examine the attitudes and practice patterns of APNs toward AT.

AT are referred to by multiple names, such as holistic, unconventional, complementary, and unorthodox. One definition of alternative therapy is "medical practices that are not in conformity with the standards of the medical community," and another definition is "medical interventions not taught widely in U.S. (United States) medical schools or generally available at United States hospitals" (Eisenberg et al., 1993, p. 246).

There are many therapies that are classified under the heading of AT, such as therapeutic touch, homeopathic treatments, and acupuncture, to name a few. To some providers the term "alternative" has a negative connotation, which puts it on the "fringe" of acceptability to the

health-care community. Physicians and nurses often require empirical testing of new treatments or modalities before accepting them as part of practice. What is considered the fringe today may be considered state of the art or standard of practice in the next few years. Keeping this in mind, further education on AT for primary care providers would enable clients to seek consultation for AT through their primary care provider.

The work of Eisenberg et al. (1993) has raised practitioner's awareness to their clients' interests in AT. An increased knowledge of client use of AT may enable primary care providers to explore new areas of treatment in conjunction with allopathic medicine, osteopathic medicine, and advanced practice nursing. A better understanding of AT is needed by physicians and advance practice nurses (APNs) who increasingly function as primary care providers.

Since its beginning, the focus of nursing has been a holistic approach, and this continues to the present. The role of the nurse has been to promote health and prevent illness, the core concept of primary care. This is accomplished through many avenues, such as nonpharmacological treatments and a broad range of treatment modalities that can be classified as alternative. In the past, nurses have used AT with clients for health promotion. For example, nurses have used guided imagery, progressive relaxation, and therapeutic touch (Daniels, 1994). It is the assumption of this study that the union of AT and Western

medicine in client care may best promote health. APNs in primary care have a unique opportunity to assist their clients with the selection and/or utilization of AT.

Statement of the Problem

APNs are in a pivotal position to encourage open communications among alternative healers, primary care providers, and patients. Since clients often use AT with or without the knowledge of the primary care provider, APNs with a holistic practice can open lines of communication and promote trust with patients by being nonjudgmental and knowledgeable about AT.

Literature regarding attitudes, willingness to refer, and actual practice patterns toward AT have, to date, primarily addressed their use by physicians. Nurses, also in the role of primary care providers, have a need for their own evaluation of these areas and the evaluation of AT practices on client outcomes. Thus, the purpose of this study was to provide descriptive data relative to APN attitude toward AT and practice patterns.

Research Questions

The following research questions were addressed:

1. What are the attitudes of APNs towards alternative therapies?
2. What are the most frequently referred alternative therapies?
3. What are the most frequently practiced alternative therapies?

4. Is there an association between APN attitude and a willingness to refer or practice alternative therapies?
5. What is the proportion of alternative therapies that are referred versus practiced when therapies are clustered?

Literature Review

Alternative Therapies

The literature on AT is quite extensive, but AT were found to be an aggregate of many different types of modalities or therapies. Although conceptualizations of AT were not found, definitions were available from several sources. For example, Eisenberg et al. (1993) defined AT as "medical practices that are not in conformity with the standards of the medical community," including "medical interventions not taught widely at U.S. medical schools or generally available at hospitals" (p. 246). According to the Office of Alternative Medicine at the National Institute of Health, "alternative medicine includes nutrition, health education, lifestyle modification, biofeedback, relaxation techniques, acupuncture, homeopathy, herbal medicine, acupressure, chiropractic, massage, anti-oxidant therapy, bio-electromagnetic therapies, and other healing practices" (Moffit, 1994, p. 14).

Pietroni (1992) defined AT as "a term that is used as a catch-all definition for anything that is not taught in the Western medical school" (p. 564). Pietroni went further to "divide therapies into four distinct groups: Complete

systems, diagnostic methods, therapeutic modalities and self care approaches" (p. 564). The view held by Murray and Rubel (1992) was that alternative medicine was "a heterogeneous set of practices that are offered as an alternative to conventional medicine for the preservation of health and the diagnosis and treatment of health-related problems" (p. 61), such practices including many different options as well as modalities. Murray and Rubel (1992) classified therapies into four groups: "spiritual and psychological, nutritional, drug and biologic, and treatments with physical forces and devices" (p. 61).

The National Institute of Health (NIH) has further grouped alternative therapies into seven areas or clusters (Workshop on Alternative Medicine, 1994). The first cluster, "mind-body interventions" (e.g., yoga and relaxation techniques) uses:

> Extraordinary interconnectedness of the mind and the body and the power of each to affect the other. These therapies are based on the importance of interaction of the mind in producing and alleviating disease (p. 3).

The second cluster, "bioelectromagnectics application in medicine" (e.g. Reiki and therapeutic touch) is based on the science of interaction of living organisms with electromagnetic fields. These electrical fields are present in all living organisms. The premise is that the interaction with electrical fields may produce physical and/or behavioral changes in living organisms (Workshop on Alternative Medicine, 1994).

The third cluster, "Alternative systems of medical practice" (i.e., homeopathic remedies) is described as a three-tier hierarchy of health: a) professional popular; b) community-based; and c) professional.

The fourth cluster, termed "manual healing methods" (i.e. acupressure or therapeutic massage), describes the utilization of a "practitioner's hands as a primary modality both to access information (that is, to diagnosis) and to treat the patient" (Workshop on Alternative Medicine, 1994, p. 113).

While the NIH classification of the first four clusters identifies external AT (treatments do not require ingestion of substances), the remaining three are grouped by internal AT categories (treatments that require ingestion of substances). "Pharmacological and biological treatments" describes the utilization of drugs and vaccines that have not been accepted in mainstream medicine. These drugs and substances are believed to be nontoxic. They are also believed to be able to stimulate the patient's own immune system to fight off illness. "Herbal medicine" is explained as the use of plant or herbs to assist patient healing. And finally, "diet and nutrition in the prevention and treatment of disease" is described as the use of vitamins, food avoidance, or food inclusion as an intervention. This is termed as alternative dietary lifestyles which are used in preventing or, in some cases, even treating diseases. The remaining three NIH clusters were unified for this study

into a fifth cluster termed "home treatments" to simplify scoring. This combination consisted of the NIH's fifth cluster (diet and lifestyle choices), sixth cluster (herbal remedies) and seventh cluster (alternative systems in homeopathic medical treatments).

AT for this study were defined as a synthesis of therapies not widely taught in Western nursing education that were: a) referred to another trained practitioner; b) practiced by the APN in a primary care setting; and c) were easily clustered into five groups (mind-body movement, mind body nonmovement, bioenergic systems, manual healing, and home treatments). Specifically to APN practice, AT are nursing interventions that were nonpharmocologic, used in conjunction with medical interventions frequently taught in graduate nursing schools and also available in hospitals and communities. These interventions are utilized to promote patient well being.

Attitudes

There were many definitions of attitude in the psychology literature, several in health practice, and a few relating to attitude and alternative therapies. Zimbardo and Leippe (1991) described attitudes as:

> What we like and dislike, our affinities and aversions, the way we evaluate our relationship to our environment. An attitude is a disposition in the sense that it is a learned tendency to think about some object, person or issue in a particular way (p. 31).

Ajzen (1988) defined attitude as "a disposition to respond favorably or unfavorably to an object, person, institution or event" (p. 4). Ajzen further described an attitude as a hypothetical construct manifesting itself in a wide variety of responses.

> These responses are evaluative in nature, and they are directed at a given object or target (a person, institution, policy, or event). Evaluations can change rapidly as events unfold and new information about a person or issue become available (Ajzen, 1988, p. 7).

Also, Ajzen and Fishbein (1967) felt their theory could help predict a behavior by examining attitudes, normative beliefs, and motivation. Henerson, Morris, and Fitz-Gibbon (1987) described attitude in a broader sense as an effect of feelings, values, or beliefs.

Pender and Pender (1986) defined attitude related to health behaviors as reflecting a belief concerning the probability of specific consequences following behavior with a favorable or unfavorable evaluation of those consequences. Thorston and Powell (1991) defined attitude in relationship to health and age, based on a person's perception either of personal health or health-care services. Langer and Warheit (1992) suggested that health behavior was mediated by attitude, but the behavior was dependent on available resources; behavior then became the medium for expression.

Each of these investigators held similar views: That attitude was based on feelings--positive or negative--in relation to an object, event, person, institution, or issue.

There were slight variations as to whether an attitude was a learned response that could change, or whether it was a value or belief which could not change. There was also a difference in definition of the concept of health attitude, ranging from individual perception based on consequence, age, to availability of resources.

Several conceptualizations were incorporated from the literature to define the concept of attitude for this study. Attitude was viewed as a concept which could change with new information, and the values of the individual had an influence on the attitude. In other words, an attitude which could be either positive or negative was a learned tendency based on personal beliefs, values, perceptions, and experiences.

Practice Pattern

One study evaluated actual AT practice patterns by nurses. Keegan (1996) surveyed 270 nurses, over half of whom reported using AT 16 times in the pervious year. The most commonly practiced therapies (from a total of 21) utilized predominately mind-body interventions (e.g., biofeedback, breathing exercises, meditation, and imagery). Keegan's survey did not indicate, however, whether participants had special training in any of the therapies.

Practice pattern was sometimes termed referral patterns or referral rates in the literature (Fertig, Roland, King & Moore, 1993; Roland, 1988; Wharton & Lewith, 1986). Often times referral pattern and practice pattern were used

interchangeably. In regard to referral, Roland (1988) explained that it was the process of counting the number of times the physician directed a person for consultation with another practitioner. Wharton and Lewith (1986), in their use of the term referral pattern, defined it as sending patients either to medically or nonmedically qualified practitioners of alternative therapy. Blumberg et al. (1995) combined referral pattern and practice pattern and defined referral pattern as the "willingness to refer," or the voluntary act of sending a patient to another practitioner for alternative therapy. They also defined practice pattern as the use of alternative therapy within the practitioner's office. By general consensus, referral pattern and practice pattern both referred to the act of sending a person to another for a consultation. The slight difference in the definition of practice pattern was in the actual performance of a service.

Referral/practice pattern here was defined as the act of directing or the willingness to refer a client for consultation with another provider for a service not performed in the primary care practice or the actual practice by the APN of performing AT for clients.

Attitudes and Referral/Practice Patterns

Research data on advance practice nurses' attitudes and practice patterns, including willingness to refer and actual practice of AT, were not available. However, several studies evaluated physicians' attitudes and referral/practice

patterns in relationship to AT. One such study by Blumberg, Hendricks, Dewan, Grant and Kamps (1995) randomly sampled U.S. physicians who practiced in either internal medicine or family medicine. Attitude was measured by whether the physician was willing to encourage, remain neutral, or discourage a client who showed an interest in a specific alternative therapy. Practice was defined as the willingness to refer or provide any of the 16 specific AT listed on the questionnaire. No theoretical framework was mentioned.

Of the 572 responses, half of the physicians (286) stated they would encourage patients to seek the use of alternative therapy. More than half (57% or 326 surveyed) were willing to refer patients for treatment to six or more AT. Blumberg et al. (1995) suggests that "physician involvement in unconventional medicine [alternative medicine] is likely to be higher among younger or female physicians, physicians practicing in the West [U.S.], and family practitioners" p. 32. Midwest female family practice physicians were also reported to refer and practice AT greater than 50 percent. This study portrayed female physicians as being more likely to utilize AT than male physicians. Perhaps the female physician and APN population relationship could be made. The authors did not discuss the validity or the reliability of the tool; rather, they recognized that generalization of their study was a limitation due to the process of selecting physicians with only single board certification and not following up with

nonresponse physicians for this study. Blumberg et al., (1995) recommended the need for further physician education. Neither advantages nor limitations of AT were discussed.

Borkan, Neher, Anson, and Smoker (1994) examined a variety of specialty physicians to evaluate their attitude, knowledge, and practice regarding AT. In their study the first variable of attitude was measured by a 6-point Likert scale upon which participants rated the effectiveness of eight separate AT. The variable of practice pattern was based on participants' estimation of referrals in the previous year--whether formal or informal, verbal or written--given to clients for use of AT. The study utilized a written questionnaire with a one-month reminder note. Two of the sites were in the United States (New Mexico and Washington) and one in Israel. No theoretical framework was mentioned.

Of the 138 physicians surveyed from a wide variety of specialties, 60 (approximately 44%), were in primary care. This study found that 60% of the surveyed physicians made at least one referral for an alternative therapy in the previous year, and 38% had done so in the prior month. It also found that primary care physicians were 2.33 times more likely to refer to AT than were physicians in a specialty practice. One limitation of the Borkan et al. (1994) study was the low response rate in the Washington site. Each of the selected sites was drastically different, either

culturally, socio-economically, or in availability of alternative therapy practices.

Schachter, Weingarten, and Kahan (1993) evaluated Israeli physician's experiences with AT, attitudes toward alternative therapy, and opinions about incorporating alternative therapy in the health-care system. The attitude variable was determined by one of the following questionnaire response options: (a) physician objected to its use, (b) would not recommend any, © wanted all legally banned, or (d) found usefulness of an alternative therapy. The practice variable was defined in the study as the willingness to refer or practice alternative therapy. A total of 89 physicians were evaluated, and of this number 46% were women. Specific areas of practice were not stated, and no theoretical framework was reported. Of the 89 physician participants, 17% (15 physicians) had formal training in AT and 11% (10 physicians) believed there was a scientific basis for alternative therapy; 54% (48 physicians) thought AT were useful in their practice. However, this study did not show validity or reliability of the tool utilized. Other limitations to the study were the small sample size and the lack of information concerning physician practice areas.

Each of these studies had convenience samples of physicians and utilized a questionnaire for data collection. None referred to a theoretical framework. They similarly defined practice pattern as the willingness to refer

(Blumberg et al., 1995; Schachter et al., 1993), but differed in their definition of the variable of attitude. In Blumberg et al. (1995) attitude was defined by the selection of choices of encouragement, remaining neutral, or discouraging patients who wished to utilize AT. Borkan et al. (1994) described attitude as effectiveness, and Schachter et al. (1993) offered choices from banning to usefulness for evaluating attitudes towards AT. Also, while Blumberg et al. (1995) and Borkan et al. (1994) both cited specific AT, Schachter et al. (1993) reported findings based on broad questions about AT. Despite great disparity in sample size--varying from 89 (Schachter et al., 1993) to 572 (Blumberg et al., 1995)--and the differences in evaluating attitude and referral/practice pattern (thus making generalizability difficult), it is notable that all three studies reported response rates favorable toward AT (>50%).

In summary, the literature showed an increased use of AT by clients. Though many may be managed by APNs in primary care settings, clients may also be using AT without the knowledge of their primary care provider. Preliminary evaluation of physicians interested in AT has been addressed, but now the evaluation of APN's practice and referral rates is essential for comprehensive client care. In addition, previous studies evaluated attitudes and referral/practice patterns without the utilization of a theoretical framework, while this study incorporated Ajzen's

and Fishbein's (1967) attitudinal framework as the foundation for this research.

Theoretical Framework

For this study Ajzen and Fishbein's (1967) Theory of Attitudes and Behavior provided the theoretical foundation, suggesting that an attitudinal prediction of a "specific behavioral intention in a well-defined situation" (Ajzen & Fishbein, 1973, p. 42) can be calculated. Two major factors determine specific behavioral intentions: "a personal or 'attitudinal' factor and a specific social or 'normative' factor" (Ajzen & Fishbein, 1973, p. 42). Actual behavior (B) and behavior intention (BI) are the sum of attitudes towards an act (Aact) plus a normative belief (NB) multiplied by motivation to comply (Mc) with the normative belief. Both the attitude towards the act and the product of normative belief and motivation are weighted. The relationship of these components is expressed in the equation:

$$B \sim BI = [Aact]\ w_0 + [NB\ (Mc)]\ w_1$$

Explanation of attitude towards an act refers to the person's attitude toward performing the behavior. Unlike the traditional sense of evaluating attitude based on the relationship of attitude to a specific object or class of objects, this theory evaluates attitude in relationship to performing the particular act itself. Evaluating behavioral intentions with Ajzen's and Fishbein's (1967) definition of attitude allows for prediction of specific behavior. The normative element of the theory NB(Mc) considers the impact

of the social environment on behavior, i.e., a person believes the members of the given peer group expect a specific individual behavior. The last component of the equation is motivation, which refers to the person's perceived expectation of the peer group.

Proposed Model

An adaptation of the Ajzen and Fishbein (1967) Theory was developed for this study (Figure 1). Attitudes of the APNs towards AT is represented in the left box with a two-way arrow leading to a second box representing behaviors. The attitude box symbolizes attitudes towards AT, which are learned tendencies based on personal beliefs, values, perceptions, and experiences. The behaviors box is based on the willingness to refer and actually practice an alternative therapy. The arrow represents the two way interaction or relationship between both behaviors and attitudes. This model postulates that if the attitude is

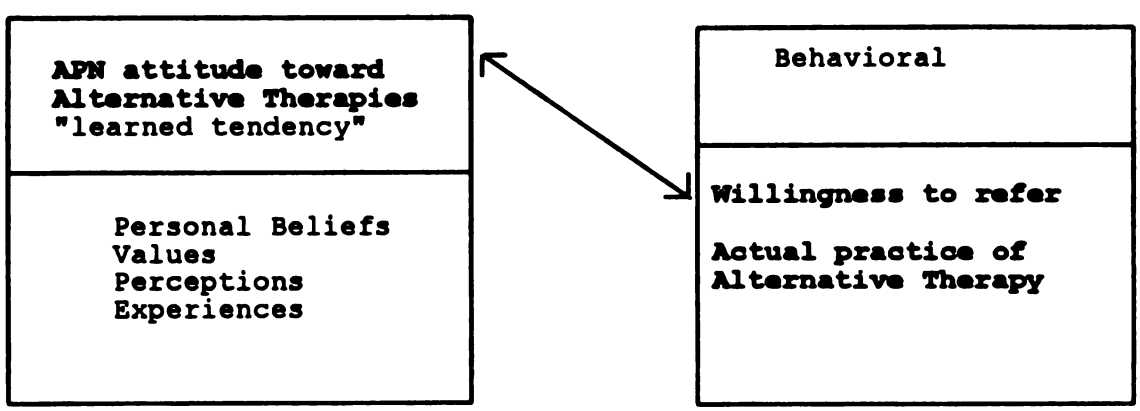

Figure 1. Adaption of Ajzen and Fishbein (1967) Theory.

positive then behavior should also be positive. The reverse should also be true: Negative attitudes result in negative behaviors. This model can aid in the prediction of the unknown variable, either attitude or behavior, whichever is unknown. The original theory included motivation and normative components but were not evaluated in this study.

Methods

Study Design

This study was an exploratory, descriptive study of APNs and their attitudes and referral/practice patterns towards AT. A survey was utilized to measure the concepts of attitude, referral, and/or practice patterns of western Michigan APNs. This design was selected to explore unknown information about the population and AT and was based on a similar survey by Blumberg et al. (1995) which evaluated physicians' attitudes, referral, and practice patterns to AT.

Sample

The sample consisted of 65 licensed APNs who responded from a total of 101 potential respondents. A list of licensed APNs and their addresses was obtained from the Board of Commerce in Michigan. From this list, APNs from 12 western Michigan counties were mailed a request to anonymously participate in the study (Appendix A). The counties included were Allegan, Grand Traverse, Kent, Leelanau, Mecosta, Mason, Montcalm, Muskegon, Newaygo, Oceana, Ottawa, and Van Buren. Inclusion of Muskegon, Kent,

and Ottawa counties provided information about urban communities, since each had greater than 50% of the population classified as urban dwellers (United States Department of Commerce, 1993). The selection of Allegan, Grand Traverse, Leelanau, Mason, Mecosta, Montcalm, Newaygo, and Van Buren provided the perspective of rural communities in Michigan. Each of these counties had greater than 50% of the population living in rural areas (United States Department of Commerce, 1993).

While this study included both urban and rural counties, the focus was on their similarities. According to the 1990 Census, the majority of the counties listed agriculture and manufacturing as the two primary occupations. Also, each of the counties reported similar household incomes averaging between $27,000 and $34,000 per year, with little difference between urban and rural areas. There was also at least one primary hospital to support each county, and in one instance (Kent County) there were seven (American Hospital Association, 1995). The population make up for all the counties was primarily Caucasian followed by Afro-Americans, Native Indian, or Asian. Each of the selected counties was predominately of a Protestant religion. There was also a similar ancestry reported (Germanic and English decent) (Department of Commerce, 1990). Analysis for individual counties was not included.

Operational Definitions

Alternative Therapies. Of the AT offered in Michigan, the following 18 were in the survey: Yoga, Tai Chi, relaxation techniques, biofeedback, meditation, imagery, hypnosis, spiritual healing, aromatherapy, reiki, therapeutic touch, energy healing, acupressure, therapeutic massage, reflexology, lifestyle diets, herbal remedies, and homeopathy. Definitions of each of the therapies supplied to the respondents are listed in Appendix B.

Clusters of therapies were identified based on the report by the NIH (Workshop for Alternative Medicine, 1994). For this study, the listed AT were separated into five categories or clusters. Following the NIH format, the first cluster was mind-body-movement interventions, which included the items of yoga, Tai Chi, relaxation techniques, and biofeedback. The second cluster was mind-body-nonmovement interventions: Meditation, imagery, hypnosis, spiritual healing, and aromatherapy. The third cluster was bioenergetic systems, including Reiki, therapeutic touch, and energy healing. The fourth cluster was manual healing: Acupressure, therapeutic massage, and reflexology. The remaining three NIH clusters were unified for this study into a fifth cluster termed "home treatments" to simplify scoring. This combination consisted of the NIH's fifth cluster (diet and lifestyle choices), sixth cluster (herbal remedies) and seventh cluster (alternative systems in homeopathic medical treatments).

Attitude toward alternative therapies. Attitude toward AT was measured by responses to the question: "If patients express interest in this applicable therapy, you would...," followed by three possible responses: encourage, remain neutral, discourage. The APN was instructed to circle one of the choices for each of 18 therapies listed. Each listed therapy could receive a score of 1 for encouraged and 0 for neutral or discourage, with a possible range from 0-18. Neutral responses, although neither positive nor negative, were combined with the discouraged category and calculated as a negative attitude for this analysis. Attitude was calculated by adding the encourage responses; a positive attitude was a score of 10 or more and negative attitude was 9 or less.

Practice pattern. Practice pattern was defined by the responses to two sets of questions. The first, "Would you be willing to refer to a trained person who practices this therapy?" could be answered either yes or no. The second question, "Do you personally provide this therapy to your patients?" could also be answered either yes or no for each of the therapies listed. A percentage greater than or equal to 60% (11 or more yes answers) in either referral or practice or a combined total indicated a positive practice pattern. A negative referral/practice pattern was calculated by less than 10 yes answers in referral, practice, or a combined total of less than 60 percent.

Instrument

Demographic data sheet. The first section of the survey allowed for the collection of personal information of the participants. It included questions about gender, age, number of years in practice as an APN, practice setting or type of specialty, education level, and whether the respondent currently practiced as an APN (see Appendix C).

Alternative treatment survey. The tool developed by Blumberg et al. (1995) was intended to measure physician attitudes toward AT and was adapted for this study to evaluate APN attitudes toward AT. Neither reliability nor validity were tested by the original authors. However, reliability for this study was calculated by the use of the Kuder Richardson Formula (KDR-20). A KDR coefficient of .61 was calculated and was considered an adequate level of reliability, for survey research; however, the results should still be interpreted with caution. Neither content nor construct validity were known and were beyond the scope of this study.

The Alternative Treatment Survey (ATS) (Appendix D) listed 18 AT along with two open areas for the respondents to add therapies not mentioned. A glossary of therapies was also provided with each survey for consistent interpretation of AT. There were three sections of the ATS. Attitudes of the respondents were evaluated by their responses to each of the therapies in the first column of responses. Response choices were encourage, remain neutral, or discourage

therapies when clients inquired about an AT. Practice patterns of the respondents were evaluated by the response choices of willingness to refer, or not in the middle column and practice the individual therapy or not in the last column.

Data Collection Procedure

A list of 101 potential respondents was obtained from the Board of Commerce in Michigan on current certified APNs of Michigan. Instructions on how to complete the questionnaire and the deadline for inclusion in the study were explained in the cover letter. A questionnaire was sent to each of the potential respondents with a cover/consent letter (Appendix A). A return stamped and addressed envelope was mailed along with each questionnaire to promote participation. Two weeks after the initial mailing, a reminder postcard was sent to each of the prospective respondents to encourage the return of their Alternative Therapy Survey questionnaire (Appendix B).

Data Analysis

Frequency, percent, mean, and cross tabulation with chi square were used to describe the variables. Demographic characteristics of the sample were described by using percents and frequencies. Demographics included information on gender, age, ethnicity, area of certification, primary area of practice, years of practice, practice setting, nurse practitioner preparation, and work status.

Analysis of the data included the following:

Research Question 1. Percentage and frequency of respondents whose attitudes were either positive or negative toward AT.

Research Question 2. Rank order by percent and frequency of the most frequently referred AT.

Research Question 3. Rank order by percent and frequency of the most frequently practiced alternative therapies.

Research Question 4. Cross tabulation with chi square analysis to determine any statistically significant proportional differences on practice/referral patterns between APNs with positive and negative attitudes.

Research Question 5. Percent and frequency of clustered AT that were referred versus percent and frequency of clustered AT that were practiced.

Protection of Human Rights

The approval from the University Committee on Research Involving Human Subjects (UCRIHS) through the Michigan State University was obtained on January 1996 prior to distribution of the survey (see Appendix A). The questionnaire's cover letter informed the respondents of the purpose, benefits, risks, and right to participate or not participate in this study (see Appendix B). The questionnaire ensured anonymity by avoiding respondents' names on the returned materials. Each participant was assured that group data were to be reported from this study. Survey information was reviewed by the principal investigator and a three member thesis committee.

Assumptions

1. Respondents of the study were able to follow and answer the questionnaire supplied.
2. The information elicited from the respondents was honest.
3. All potential respondents in selected counties were given an opportunity to participate.
4. The union of AT and Western medicine in client care may best promote health.

Limitations

The study was limited to a sample of registered APNs who were listed as of April 1995 by the Department of Commerce in Michigan. The absence of a random sampling procedure was a limitation to external validity of the study. Each of the respondents was self selected, and the sample size was small (65), thus decreasing the ability to generalize the findings to the study. The instrumentation, lacking strong reliability (KDR=.61) and no validity testing was also a limitation. A KDR=.60 is acceptable for a survey-based research, but reliability of at least .8 is standard for all other types of research.

Results

Demographic Characteristics

The sample size consisted of 65 respondents from a possible 101 for a response rate of 65 percent (see Table 1). Of this sample, 94%, (n = 61) were female and 97% (n = 63) were Caucasian. All of the respondents were over the age

Table 1

Demographic Characteristics (n = 65)

Characteristic		Frequency	%
Gender:	Female	61	93.8
	Male	4	6.2
Ethnicity:	Caucasian	63	96.9
	African American	1	1.5
	Native American	1	1.5
Age:	20-29	0	0.0
	30-39	14	21.5
	40-49	29	44.6
	50-59	16	24.6
	60-69	6	9.2
Area of Certification:	OB/GYN	23	35.4
	Pediatric	16	24.6
	Family	13	20.0
	Adult	8	12.3
	Gerontological	3	4.6
	Neonatal	2	3.1
Primary Area of Practice:	Private Physician	28	43.1
	Free-Standing Primary Care Clinic	6	9.2
	In-Patient Hospital	4	6.2
	Private NP Practice	3	4.6
	Out-Patient Clinic	3	4.6
	HMO	2	3.1
	College Health	1	1.5
	Extended Care Facility	1	1.5
	Home Health Care	1	1.5
	School Health K-12	1	1.5
	Other	15	23.1
NP Preparation:	Certificate Program	33	50.8
	Master Program	32	49.2
Practice Setting:	Urban	26	40.0
	Rural	23	35.4
	Suburban	13	20.0
Years of Practice:	Less than 1 year	3	4.6
	1-5 years	10	15.4
	6-15 years	22	33.8
	16-25 years	13	20.0
	More than 25 years	5	7.7
	No response	12	18.5

of 30 (n = 65), with the largest representation being between 40-49 years (45%, n = 29). Certification reported by the respondents covered six areas, of which 80% (n = 52) covered the primary care areas (Starfield, 1992) of OB/GYN (35%, n = 23), pediatric (25%, n = 16), and family specialties (20%, n = 13). Nonprimary care certification accounted for only 20% (n = 13) of the participating APNs. The sample functioned most frequently in private physician practice (43%, n = 28) and areas of practice not listed on the demographic data sheet, e.g. Planned Parenthood and Teen Health Clinic, (23%, n =15). Settings of practice were 40% urban (n = 26), or rural 35% (n = 23). The sample was split by the type of nurse practitioner preparation. Most common response to years of practice was between 6-15 years (34%, n = 22).

Attitudes

Research Question 1. What are the attitudes of APNs towards AT?

The overall mean attitude score for the sample was 8, which included only the listed 18 therapies. Results showed 28 respondents (43%) to have had a positive attitude (selected encourage response) toward AT (M = 13, SD = 2.9).

Thus the remaining 37 respondents (57%) had a negative attitude (selected a neutral or discourage response) (M = 5, SD= 2.5). However, of the negative responses only one respondent discouraged 11 of the 18 therapies as compared with the remaining 36 (55%) who predominately responded

neutrally. Three therapies were written in--acupuncture, prayer, and Rubenfeld Synergy--but these were not calculated into the mean.

Referral/Practice Patterns

Research Question 2. What is the most frequently referred AT?

All of the listed AT were referred. Ten were referred by more than 75% of the APNs and 13 by more than 50 percent (see Table 2). The most frequently referred AT were relaxation techniques (n = 64, 98.5%), biofeedback (n = 60, 92.3%), and therapeutic massage (n = 57, 87.7%).

Research Question 3. What is the most frequently practiced AT?

Of the 18 therapies, only two were reported practiced by more than 50% of the APNs. Respondents cited meditation (n = 38, 58%) and relaxation techniques (n = 38, 58%) as the most frequently practiced AT (see Table 3). Sixteen AT were practiced by at least one of the respondents. No one indicated having practiced the therapies of reflexology or Reiki. There were three therapies written in: acupuncture, prayer, and Rubenfeld Synergy by three separate respondents.

Research Question 4. Is there an association between APN attitude and the willingness to refer or practice?

The cross tabulation and chi-square analysis of attitude and pattern (willingness to refer/practice) is illustrated in Table 4. There was a significantly higher proportion of respondents with positive attitudes who also

Table 2
Rank Order of Referred Alternative Therapies (n = 65)

Therapy	Frequency	%
Relaxation	64	98.5
Biofeedback	60	92.3
Therapeutic Massage	57	87.7
Imagery	54	83.1
Meditation	53	81.5
Hypnosis	50	76.9
Therapeutic Touch	50	76.9
Yoga	50	76.9
Lifestyle Diets	50	76.9
Accupressure	49	75.4
Spiritual Healing	48	73.8
Tai Chi	38	58.5
Herbal Remedies	36	55.4
Reflexology	30	46.2
Homeopathy	29	44.6
Energy Healing	28	43.1
Aroma Therapy	27	41.5
Reike	26	40.0

Table 3
Rank Order of Practiced Alternative Therapies (n = 65)

Therapy	Frequency	%
Meditation	38	58.5
Relaxation	38	58.5
Imagery	17	26.1
Lifestyle Diets	17	26.1
Spiritual Healing	15	23.1
Herbal Remedies	5	7.7
Therapeutic Touch	5	7.7
Therapeutic Massage	5	7.7
Homeopathy	2	3.1
Tai Chi	2	3.1
Accupressure	1	1.5
Aroma Therapy	1	1.5
Biofeedback	1	1.5
Energy Healing	1	1.5
Hypnosis	1	1.5
Yoga	1	1.5
Reflexology	0	0.0
Reiki	0	0.0

Table 4

Cross-Tabulation and Chi-square Analysis of Attitudes and Pattern for Alternative Therapies (n = 65)

Attitude		Pattern	
		Positive	Negative
Positive	Observed	25 90%	3 10%
Negative	Observed	16 44%	21 56%

X^2 (1, n = 65) = 16.9, p < .05

had a positive practice patterns (90%), as compared to respondents with negative attitudes.

Clusters and Referral/Practice Patterns

Research Question 5. What is the proportion of AT that are referred versus practiced when therapies are clustered?

When therapies were clustered, mind-body movement (yoga, Tai Chi, relaxation techniques, and biofeedback) was the most frequently referred (92%, n = 60) and practiced (65%, n = 65). Following this was mind-body nonmovement therapies (mediation, imagery, hypnosis, spiritual healing and aromatherapy) with 77% (n = 50) referred and 63% (n = 41) practiced. Home treatments, though referred by 58% (n = 38) was only practiced by 40%(n = 26). The two remaining clusters reported a wide range of slightly below 50% to above 50% in referral rates (manual healing, 74%, n = 48, and bioenergics, 48%, n = 31). Despite the support of

referral by the respondents, both of these clusters were reported to be negligibly practiced (9%, n = 9 and 8%, n = 5, respectively) (see Table 5).

Discussion

Sample

With the exception of primary care practice areas, no comparisons of this study's sample could be made with those of the literature. The 12 counties surveyed were selected because of homogeneity (caucasian, Protestant) of the population and the balance between urban and rural settings. Gender and ethnic backgrounds were consistent with county demographics. For example by gender, certified Advance Practice Nurses in Michigan registered in 1995 (Michigan Department of Commerce) showed that of the 806 APNs listed, 14 or 2% were male. This study had a comparably low number of men (4 or 6% of the 65).

As for the findings relating to areas of practice, the sample was mainly comprised of primary care specialties (80%): OB/GYN, pediatric, and family. Blumberg et al. (1995) found 59% of their physician population were in a primary care or family practice setting. A serendipitous finding was that the sample was considered to be seasoned, with the majority (62%, n = 40) having 6 or more years of experience. It can be concluded, that the questions under research were not biased by gender, ethnic background, or setting as compared with all APN's in the surveyed areas of Michigan.

Table 5

Referred/Practiced Therapies by Cluster (n = 65)

Cluster	Referred		Practiced	
	Frequency	%	Frequency	%
Mind-Body Movement	60	92.3	65	64.6
Mind-Body Nonmovement	50	76.9	41	63.1
Home Treatments	38	58.5	26	40.0
Bioenergic	31	47.7	9	9.2
Manual Healing	48	73.8	5	7.7

Attitudes

An important study result was that APNs' attitudes toward AT were negative (56%), as measured by this study. There were 28 respondents (M = 13, SD = 2.9) who had a positive attitude and 40 with a negative attitude (M = 5, SD 2.5). Both groups had a small standard deviation, which would indicate similarities in each of the groups. The negative attitude group mean (M = 5) ranged toward the middle of the possible 0-9 (encourage $\leq$ 9), as did the positive group mean (M = 13) between 10-18 (encourage $\geq$ 10). Only a few of the therapies (e.g. reflexology and Reiki) were actually discouraged by a few respondents, and one respondent discouraged 11 of the 18 therapies. These findings were not supported by the literature in which over 50% of the physicians and nurses supported AT (Schachter et al., 1993, Borkan et al., 1994, Blumberg et al., 1995, &

Keegan, 1995). Perhaps the neutral attitude toward a therapy implied the respondent had no strong feelings of like or dislike for an individual therapy. This could also mean that if a client showed interest in one of these neutrally ranked therapies, the APN might refer the client for this therapy.

One possible explanation for negative outcome was this study's calculation of negative attitude: Neutral responses were tallied and included in the negative category. While the survey design was intended to evaluate attitude toward AT, the use of the neutral position actually confounded analysis. The choices of encourage and discourage categories allowed for clear interpretation of either positive or negative attitudes. But the neutral category, by definition, was neither positive nor negative. Attitudes for this study were originally defined as being only positive or negative, calculated from adding the encourage responses ($\geq$10) to show positive response pattern. Negative attitudes ($\leq$9 encouraged) however were a combination of neutral and/or discourage responses, so by default the neutral category was classified as negative. If the neutral responses were separated from negative (discourage) ones, 61% of the APNs would have been neutral and only one negative.

Only one therapy, Lifestyle Diets, was reported equally in encourage and neutral categories by respondents. This was especially interesting since information about nutrition/ diet has been taught as a foundation of nursing education and has come to a new height of awareness in present western

society. The public's obsession and concern for diet and exercise offer an opportunity for APNs to guide clients toward participation in healthy living through diet changes. Certainly health-care research has demonstrated positive effects of diet/nutrition on diseases such as diabetes, cancer, and coronary artery disease (Whitney, Cataldo, & Rolfes, 1996), and greater support by APNs was expected.

A possible explanation for the even split between encourage and neutral could have been that Lifestyle Diets was not viewed by respondents as an alternative therapy. If this was so, then diet may have been viewed as mainstream health-care, but still does not account for it being marginally used, or the reported neutral attitude. Further, respondents may have viewed Lifestyle Diets differently from conventional diets, e.g. vegetarian or macrobiotic diets. In addition, APNs in the study asked whether using AT was in place of already established medical therapies or in conjunction with them. Perhaps Lifestyle Diets, as well as the other AT, were interpreted as "instead of" conventional therapies rather than "with" conventional therapies. Though a glossary was provided to define each alternative therapy, an overall definition of AT in relation to standard practice was not provided.

As described in the adapted model for this study, attitude was based on personal beliefs, values, perceptions, and experiences which all are components of comfort level. Perhaps the definition of AT offered to the respondents

(practices not in compliance with the standards of the medical community and interventions not taught widely at U.S. medical schools) influenced their responses.

The term "alternative" may also have given the APN a negative connotation, which, in turn, may have accounted for negative responses. Though the adjective "alternative" has become more commonly used, the APNs in this study were all over the age of 30 years (78%, n = 51 were over 40 and 34% were over 50 years old). Alternative therapy as used in the study might not have been as familiar to these mature nurses. Indeed, several APNs wrote they were not knowledgeable or lacked experience in a given therapy. Thus, the use of the phrase "complementary therapies" as opposed to "alternative therapies" may have elicited more favorable results.

Another and likely possible explanation for the negative attitudes could have been that the sample came from a highly conservative geographical region. The blend of the population characteristics--Protestant, white, female, and over 30 years old--could support the possibility for resultant negative attitudes. Western Michigan is known for conservative stances on many issues. Taking this into consideration, AT might be considered by many to be sufficiently outside traditional health-care practices that the population would reject their usage. This would help explain the negative or neutral attitude and practice patterns by this population.

By study design, participating APNs had negative attitudes towards AT. The only conclusive result on negative attitudes was that one respondent was classified as having a true negative feeling toward AT. The majority of the remaining respondents were scored as negative since they answered neutral, at least indicating a nonadverse approach to the use of AT. This nonadverse posture would seem to have support in that all the listed AT had been referred and all but 2 had been practiced (see Table 2 and 3). In future research, perhaps neutral responses should be omitted or grouped with positive attitudes.

APN Referral Patterns

All of the listed AT were referred, with 10 being referred by more than 75% of the respondents. Relaxation and biofeedback dominated referral patterns, with over 90% of the APNs indicating referral practice. More than 80% referred therapeutic massage, imagery, meditation; and over 70% referred hypnosis, therapeutic touch, yoga and diet. This tendency likely resulted from nurses and clients being more familiar with these therapies, and the increased empirical testing, and greater research base. Since the 1990's a notable change in research (e.g. therapeutic touch, imagery and meditation, to name a few) has demonstrated documented outcomes utilizing a scientific basis for evaluation. Higher client and APN familiarity, increased support in health-care literature, and empirical research of AT could result in greater availability and demand of AT.

Lack of APN knowledge of AT could have resulted in more referrals over practice of AT. The neutral attitude would then reinforce the noncommittal attitude, making referrals easier for clients who show an interest in AT. An increase in client interest, increase in availability of AT, and AT becoming more mainstream could potentially support the increased referral data in this study.

Eight therapies were referred less than 75% of the time: Spiritual healing, Tai Chi, herbal remedies, reflexology, homeopathy, energy healing, aroma therapy and Reiki. A logical explanation could be lack of a research base for these therapies. Indeed, some respondents (n = 5) added remarks expressing their unfamiliarity with listed therapies. A lack of knowledge or information would certainly inhibit referrals. Any responsible APN would hesitate to make decisions regarding appropriate referrals without suitable background information and substantiation of the benefit of AT (Berman & Anderson, 1994, Engebretson & Wardell, 1993). Whereas the allopathic model of medicine has been well supported by scientific research, alternative therapy research for these eight therapies has commonly been anecdotal in its support (Owen, 1995). In the last 5 years the increase in empirical research of AT has expanded to include some of these eight AT. Clearly the 10 most frequently referred AT described by this study have had more empirical research and thus have a larger group of respondents willing to refer.

APN Practice Patterns

Only meditation and relaxation techniques were reported to be practiced by more than half (58%) of the respondents; the remaining 16 AT had considerably lower use (0-26%). There are several explanations for such low practice rates, including lack of training/credentialing (Engebretson & Wardell, 1993), lack of physician support, and lack of insurance support.

From a training/credentialing standpoint APNs who were prepared in certificate programs may not have had the exposure to AT in their programs, the primary focus having been on acquiring technical skills to perform as an APN. Though masters-prepared APNs may have had a greater introduction to AT, both groups would typically have to pursue outside sources for training/credentialing in most of the AT, since only a few have generally been incorporated into the traditional APN curricula. A problem finding competent instruction for the various AT and unavailability of courses and workshops on AT would even further restrict APNs ability to practice AT.

Even where an instructor was available, the APNs may not want to expand their knowledge/skills in AT. The APNs in this study were well established in their practices, with approximately 40 respondents having 6 or more years of experience. As in most professions, the more established an individual becomes in practice, the less willing they may become to incorporate unfamiliar routines; hence the longer

APNs are out of school, the more entrenched they would become in their routine practice. Newly graduated and less experienced APNs might be more willing to embrace AT into their practice because their routines are not yet established, and they may have had greater exposure to AT.

This may not be true for all seasoned APNs in primary care. The formation of various managed health-care systems along with competition client populations and limited health-care dollars, we may see a change in some experienced APN positions on AT. Many seasoned APN's realize they often need more than tangible tools to care for their patients, and are professionally drawn to pursue AT. A greater demand by clients for AT in conjunction with traditional health-care regimes may also boost an interest in AT. Managed care dictates that primary care should have less referrals to specialists, requires increased access to members, and promotes case management. Further development of the APN practice with the utilization of AT is eminent.

A discouraging finding was that of the therapies taught in nursing schools as nursing interventions, practice was less than expected among respondents (meditation 58%, imagery 26%, and diet 26%). It seemed remarkable that APNs were not practicing these techniques more frequently, since nurses are socialized and educated in a holistic model.

The introduction of AT into practice with the realization that AT may not offer a cure to a current health-care problem is probably another hindrance. The focus

of integrating AT into practice needs to emphasis benefits which support traditional health regimes. The intended results of some of the AT are relaxation, a sense of well being, or spiritual enlightenment. Addressing these areas, in conjunction with traditional regimes with clients, may serve to offer holistic treatment of their illnesses.

Lack of physician support of AT might also have limited APN's practice. The APNs in this study worked primarily in traditional family practice settings in conservative communities. If the physician did not value or approve of a specific alternative therapy, an APN in many instances may have been restricted from practicing it, despite potential APN support. The APN might also have been working under an agreed set of guidelines, with responsibilities of the physician and the APN clearly defined. The APN would then have to refer clients to AT rather than practice AT. Indeed, two respondents commented that their physician's practice protocol was their reason for not practicing AT. Physician nonsupport would also impede newly graduated APNs from practicing AT because they would initially focus on developing confidence and credibility in their traditional roles as APNs, both with physicians and clients. Therefore APNs who are more receptive to practicing AT might more readily be able to introduce AT after becoming established in a practice.

Lack of physician support might arise from financial operational considerations. The optimal balance between

provision of quality of care and profit/debit margins might be difficult to achieve with implementation of some AT. For example, biofeedback and imagery take added time above the normally scheduled office appointment and thus make it difficult to initiate without prior planning. This is further compounded by the fact that there is greater emphasis on scheduling shorter office visits. Less time in the office would reduce the chance for AT being practiced.

Lack of support by insurance companies (hence physician lack of support for financial reasons) may have also accounted for such a low practice rate of AT. In current literature, the relationship between AT (e.g., relaxation techniques) and specific diagnosis (e.g. fibromyalgia) is not available. Under insurance guidelines, office treatments and procedures must have measurable outcomes to receive reimbursement. At present, insurance compensation for AT must be coded under stress, anxiety, or pain, and some insurance carriers cover such AT as diet and massage. Surprisingly, neither diet or massage were practiced by APNs in this study: 26% and 6.2%, respectively. Most other AT are not covered by insurance. So even if the practitioner was willing to provide AT, the lack of insurance support could impact financial stability of the practice and increase the burden of payment on the client. Clients unwilling to pay out-of-pocket for AT would further hinder their use in a practice. Some AT (e.g. therapeutic massage or therapeutic touch) also require special equipment or additional space,

both of which may be costly and threaten the profits of a practice due to the initial investment costs.

Attitude And Referral/Practice Patterns

This study supported that APNs with positive attitudes had positive referral/practice rates, and that negative attitudes were fairly evenly divided between positive and negative referral/practice patterns. This finding was supported by the literature in which over 50% of the physicians and nurses supported AT in both attitude and referral/practice pattern (Blumberg et al., 1995, Borkan et al., 1994, & Keegan, 1995, Schachter et al., 1993). Perhaps the neutral responses in the sample were the explanation for the close proportion between those respondents with a similar negative attitude and negative pattern. Hence a proportion of positive and negative referral/practice pattern among respondents with a negative attitude was perhaps distorted by the neutral responses being coded as negative.

Clusters

When AT were clustered, the most frequently referred and practiced were mind-body movement and nonmovement interventions. Both of these clusters are noninvasive and induce a state of relaxation, either with assistance or independently.

> These therapies [mind body movement and nonmovement interventions] can help individuals appreciate the sources of their stress and reduce that stress by quieting the mind and using it to

> mobilize the body to heal itself (National Health Institute, 1992, p. 3).

This finding was supported in the Keegan (1996) study that showed nurses most frequently practiced mind-body interventions (e.g., biofeedback, breathing exercises, meditation, and imagery) when incorporating AT for patient care. This was also consistent with findings in this study regarding the most frequently practiced and referred AT (see Tables 2 and 3).

In this study, the positive trend towards mind-body interventions may have stemmed from early experiences in nursing education, including theory and techniques (e.g. relaxation methods, meditation, and imagery) as a means of assisting patients to optimal levels of health through noninvasive measures. Holistic nursing explores mind-body interconnectedness and has been taught to nurses through the use of theories developed by nurse theorists such as Rogers and Levine (Meleis, 1991). These types of therapies may have been more familiar to more nurses and perhaps were the basis for their encouragement. The sample may have had a limited range of exposure to AT-- and perhaps only mind-body interventions.

Azjen and Fishbein (1967) Theory

The results of this study partially supported the adapted model of the Azjen and Fishbien (1967) Theory. The original theory postulated an association between behavior and attitude. The results of this study postulated a bi-

directional association between attitude and behavior of APNs toward AT. There were proportional differences between attitude and behavior when the total sample's attitudes and patterns were evaluated. The hypothesized relationship that positive attitudes would induce positive referral and/or actual practice of AT was found not to be false. As for the negative attitude equating negative referral and/or actual practice this was only partially supported by the findings. Negative attitudes were represented by both negative and positive patterns of referral/practice, and were not significant in regards to proportional differences, but demonstrated a fairly even division of both positive and negative practice patterns. There is a need for further model development to clarify definitions of the variables (positive, neutral, and negative attitudes).

Implications

Implications for Practice

This study examined attitudes of APNs toward AT. Results showed that a negative attitude (as defined by the study) was more common than a positive attitude. However, although APN attitudes were calculated as negative, the majority of respondents in this category answered neutrally.

Strategies to turn neutral practice attitudes and patterns to more positive ones need to be designed. Since the study showed attitudes and behavior are associated. So if attitudes towards AT are positive, then AT will be utilized in practice. One strategy would be to objectively

evaluate practices in which AT are used. An alternative therapy prescribed for a specific diagnosis should be closely monitored to determine its benefit to patient outcomes. If it is found that outcome measures and cost effectiveness are decisive, physicians and APNs should be more likely to merge the alternative therapy into their practice patterns.

Positive attitudes toward AT will better assist clients and APNs alike in selecting and assimilating AT into practice. Including AT into practice draws on the nursing premise of being holistic: Nurses view the client in light of mind, body, and spirit. APNs must be knowledgeable to be advocates for their clients, filtering out potentially harmful AT and being "supportive of his/her client through education, counseling, documentation and close monitoring" (Slagle, 1996, p. 17).

Creating a network directory of primary care providers using AT would give colleagues easier access to information on specific AT. Such a directory would be helpful both to the beginning (novice) practitioners and experienced (expert) ones by linking the two, serving as a starting point for consultation and collaboration of APNs wanting to use or learn more about an alternative therapy and its benefits. Knowing alternative therapy resources can help in modeling a practice applying AT and reinforce positive practice behaviors. As networking becomes more widespread, neutral attitudes toward AT should become more positive.

Yet another strategy to encourage APNs and clients to view AT in a more positive light might be through free treatment programs. Results in this study showed clustered mind-body movement (e.g. yoga, relaxation techniques, Tai Chi, biofeedback) and nonmovement interventions (e.g. mediation, imagery, hypnosis, spiritual healing, and aroma therapy) were not only encouraged but were referred and practiced either singly or in clusters more often than other AT. The more familiar, noninvasive, low technological, and cost-effective aspects of these interventions thus make them an excellent choice for such treatment programs and can open the door for other alternative therapy use. The greater the exposure to AT, the greater the likelihood a neutral attitude towards their benefits will become positive.

Implications For Education

The neutral attitude demonstrated by the APNs in the study may become more positively directed through increased education. Providing a strong theory and knowledge base of AT by APN nursing students in their clinical programs would change perceptions relative to the value of enhancing traditional regimes with AT. A number of opportunities currently exist to increase awareness of AT through workshops and seminars tailored to the community and a range of health-care providers.

Several APNs in this study felt they lacked knowledge about specific AT, suggesting these therapies were not a part of their nursing education. Many nursing programs offer

only limited courses in AT, but most incorporate at least some introduction to relaxation techniques, imagery and massage. Since relaxation (mind-body movement) and imagery (mind-body nonmovement) were two therapies positively referred (relaxation also positively practiced) in this study, it would be logical to expand curricula to other AT in these two clusters, as an initial introduction to the many AT available. And as more research data become available, classes should be augmented to include the theoretical and practical benefits of specific AT. Similar programs could be designed for practicing APNs to augment their education and practice, as well as to facilitate continuing education required for license renewal. Increasing participation in these programs can only increase the effectiveness of APNs in their practice settings. The more members of the primary care network are exposed to AT, the more likely AT will be embodied into patient care. The current neutral attitudes toward AT would shift toward a more positive position of acceptability and credibility.

The client population could similarly benefit from educational materials/seminars to boost their own understanding of AT and how AT may be used for personal well being. Certainly the general public has developed a heightened interest in AT, as evidenced by increasing numbers of health foods and spas and the use of herbal and other natural remedies. In some instances, an individual is ignorant of the consequences of using AT and may, in fact,

try a alternative therapy contrary to the desired outcome. Seminars sponsored by knowledgeable APNs become a natural vehicle to properly educate and guide clients toward appropriate AT as well as building a relationship between the APN and the community.

Implications For Research

This study needs to be repeated using a larger sample and surveying broader population areas (e.g. Detroit) to validate findings of Michigan APN attitudes and practice patterns. Eisenberg et al. (1993) proposed that, "physician involvement in unconventional alternative medicine is likely to be higher among females, younger physicians, family practitioners, or those who practice in the Western United States. This statement could be extrapolated to APNs who practice in primary care. A further study, although not explored in this study, would be to compare other states' APN populations, e.g. California (liberal) to Michigan (conservative) to see if there were a difference in attitude or behavior toward AT and whether Eisenberg et al. (1993) is correct.

Further refinement of the instrument with emphasis on clarification of the terms "alternative" versus "complementary" and a clearer definition of AT is essential for the explanation of AT in conjunction with current medical regimes. In addition, the survey should separate the three categories of attitude (encourage, remain neutral, discourage) and score each separately. Interpretation of

GLOSSARY

1. Acupressure-the utilization direct physical pressure by fingertips or hands to treat energy points and channels by a therapist.

2. Aromatherapy - the therapeutic use of the essential oils of plants.

3. Biofeedback- the use of electronic devices that measure blood pressure, pulse rate, muscle tension, skin temperature, perspiration, brain waves or other variable bodily functions. Once identified through these instruments relaxation techniques are used to change and later the patient learns to control body function subconsciously.

4. Energy Healing- the use of the practitioners ability to view or sense an individual's energy field or etheric body.

5. Herbal Remedies- the use of plants or herbs to alleviate a symptom or ailment.

6. Homeopathy - based on the "law of Similars" that the symptoms of disease can be cured by substances of minerals, botanical, zoological as well as other sources that produce similar symptoms in healthy people.

7. Hypnosis - a state of attentive and focused concentration in which people can be relatively unaware, but not completely blind to, their surroundings.

8. Imagery- mental process that is imagined through all the senses while a person its fully awake.

9. Lifestyle Diets - a variety of eating styles that requires different regimes of vegetables or vitamins and sometimes requires the elimination or moderation of intake of certain foods, such as sugar and meats.

10. Mediation - a class of techniques intended to influence and individual's consciousness through the regulation of attention.

11. Reflexology - a system of diagnosis and treatment based on the theory that pressing on certain areas of the hands or feet can help relieve pain and remove the cause of disease in other parts of the body.

12. Reiki - a healing system said to "utilize life force energy to vitalize and balance the entire physical/mental, emotional, spiritual dynamic" (American Medical Association, 1993). It is also used for stress-reduction and relaxation as well as a complete preventative self-health care method.

13. Relaxation Techniques - a conscious effort made for the decrease of stress and anxiety through the use of self; or example, by either deep breathing or tensing of muscle group followed by relaxing of the muscles.

14. Spiritual Healing - the use of prayer to alleviate illness or disease.

15. Tai Chi - a Chinese art of exercise for self defense and meditation.

16. Therapeutic Massage - a scientific manipulation of the soft tissues of the body to normalize tissues.

17. Therapeutic Touch - a system in which the hands of a practitioner are used to redistribute energies to help or heal someone who is ill or distressed. Sometimes used for relaxation.

18. Yoga - based on ancient Indian beliefs that the use of exercise improves physical and emotional health. Used are breathing, mediation, other relaxation techniques, bending, stretching, holding various postures, and dietary measures.

Definitions adapted from Alternative Health Methods, 1995, and Alternative Medicine: Expanding Medical Horizons, 1992.

APPENDIX C

DEMOGRAPHIC DATA SHEET

Please complete the information. Circle the responses that apply.

1. Gender

   A. Female
   B. Male

2. Age in years

   A. 20-29
   B. 30-39
   C. 40-49
   D. 50-59
   E. 60-69
   F. 70+

3. Ethnicity
   A. Asian-Pacific Islander
   B. African-American
   C. Caucasian
   D. Hispanic
   E. Native American
   F. Other. Please write in:_____

4. Area of Nurse Practitioner certification
   A. Adult
   B. Gerontological
   C. School
   D. Neonatal
   E. Family
   F. Pediatric
   G. OB/GYN

5. Primary area of practice

   A. Private NP Practice
   B. College Health
   C. Extended Care Facility
   D. Home Health Care
   E. Occupational/Employee Health
   F. Free Standing Primary Care Clinic
   G. NP Faculty
   H. Private Physician Practice
   I. Correctional Facility
   J. School Health K-12
   K. In-Patient Hospital Unit
   L. Outpatient Clinic
   M. Health Maintenance Organization
   N. Other, Specify_____

6. Are you currently in practice?
   Yes No

7. Years of practice

   A. Less than one year
   B. 1-5 yrs.
   C. 6-15 yrs.
   D. 16-25 yrs.
   E. more than yrs. 25

8. Practice Setting
   A. Rural
   B. Urban
   C. Suburban

9. NP Preparation
   A. NP Certificate Program
   B. Master's Program

APPENDIX D

ALTERNATIVE THERAPIES SURVEY

Instructions: For this survey, please indicate the response you give when patients ask you about the following alternative therapies. Please circle an appropriate response for each column. You may enter other alternative therapies at the end of the survey. Use the attached glossary for definitions of the therapies.

Therapy	If one of your patients expressed interest in this applicable therapy, you would: Encourage use	Remain Neutral	Discourage use	Would you feel comfortable referring your patients to a trained person who practices this therapy ?		Do you personally provide this therapy to your patients ?	
Accupressure	E	R	D	NO	YES	NO	YES
Aroma Therapy	E	R	D	NO	YES	NO	YES
Biofeedback	E	R	D	NO	YES	NO	YES
Energy Healing	E	R	D	NO	YES	NO	YES
Herbal Remedies	E	R	D	NO	YES	NO	YES
Homeopathy	E	R	D	NO	YES	NO	YES
Hypnosis	E	R	D	NO	YES	NO	YES
Imagery	E	R	D	NO	YES	NO	YES
Lifestyle Diet (Vegetarian, Macrobiotic, etc.)	E	R	D	NO	YES	NO	YES
Meditation	E	R	D	NO	YES	NO	YES
Reflexology	E	R	D	NO	YES	NO	YES
Reiki	E	R	D	NO	YES	NO	YES
Relaxation Techniques	E	R	D	NO	YES	NO	YES
Spiritual Healing	E	R	D	NO	YES	NO	YES
Tai Chi	E	R	D	NO	YES	NO	YES
Therapeutic Massage	E	R	D	NO	YES	NO	YES
Therapeutic Touch	E	R	D	NO	YES	NO	YES
Yoga	E	R	D	NO	YES	NO	YES
	E	R	D	NO	YES	NO	YES
	E	R	D	NO	YES	NO	YES

APPENDIX E

UCRIHS APPROVAL

MICHIGAN STATE
UNIVERSITY

February 15, 1996

TO: Susan L. Wimpee
2323 Cress Creek Dr.
Muskegon, MI 49444

RE: IRB#: 96-055
TITLE: MICHIGAN ADVANCE PRACTICE NURSES ATTITUDES AND PRACTICE PATTERNS TOWARDS ALTERNATIVE THERAPY
REVISION REQUESTED: N/A
CATEGORY: 1-C
APPROVAL DATE: 02/15/96

The University Committee on Research Involving Human Subjects'(UCRIHS) review of this project is complete. I am pleased to advise that the rights and welfare of the human subjects appear to be adequately protected and methods to obtain informed consent are appropriate. Therefore, the UCRIHS approved this project and any revisions listed above.

RENEWAL: UCRIHS approval is valid for one calendar year, beginning with the approval date shown above. Investigators planning to continue a project beyond one year must use the green renewal form (enclosed with the original approval letter or when a project is renewed) to seek updated certification. There is a maximum of four such expedited renewals possible. Investigators wishing to continue a project beyond that time need to submit it again for complete review.

REVISIONS: UCRIHS must review any changes in procedures involving human subjects, prior to initiation of the change. If this is done at the time of renewal, please use the green renewal form. To revise an approved protocol at any other time during the year, send your written request to the UCRIHS Chair, requesting revised approval and referencing the project's IRB # and title. Include in your request a description of the change and any revised instruments, consent forms or advertisements that are applicable.

PROBLEMS/ CHANGES: Should either of the following arise during the course of the work, investigators must notify UCRIHS promptly: (1) problems (unexpected side effects, complaints, etc.) involving human subjects or (2) changes in the research environment or new information indicating greater risk to the human subjects than existed when the protocol was previously reviewed and approved.

If we can be of any future help, please do not hesitate to contact us at (517)355-2180 or FAX (517)432-1171.

Sincerely,

David E. Wright, Ph.D.
UCRIHS Chair

DEW:bed

cc: Gwen Wyatt

OFFICE OF
RESEARCH
AND
GRADUATE
STUDIES

University Committee on Research Involving Human Subjects (UCRIHS)

Michigan State University
232 Administration Building
East Lansing, Michigan
48824-1046

517/355-2180
FAX: 517/432-1171

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each category in regards to attitude, and comparisons with this study are needed to validate findings and make possible generalizations. Unlike the survey for this study, which only loosely measured attitude and broadly measured behavior, a new tool might include analysis using a 6-point Likert scale with ranges of strongly agree to strongly disagree. Such a scale would help to more accurately evaluate attitudes toward AT.

It would also be interesting to conduct a correlational study of APN's years of experience and likelihood of practicing AT. Perhaps this would provide insight into APN's attitude and practice behaviors (expert versus novice), and show if there is a relationship between years of experience, and the use of AT. In addition, studying the relationship of APN's practice with AT using focus groups or qualitative research may also help explain data regarding use or non-use of AT.

In addition, empirical research, especially with outcomes of AT on specific medical diagnosis is needed. This research is essential in order to document the effect of AT on client outcomes--thus shifting neutral attitudes to positive attitudes. This shift would increase the marketability of APNs incorporating AT into their practice in the managed care area. The APN is certainly well suited for this change. But more data are needed to demonstrate the uniqueness of AT as well as their cost effectiveness and client satisfaction rates.

Summary

The use of AT is growing. Yet limited APN knowledge of AT has hampered incorporation into primary care settings. Both physicians and APNs need a better understanding of what role AT can play in fostering client wellness. In today's high technology health-care, APNs have an opportunity to facilitate client health and wellness through the use of inexpensive AT. Many clients are already using AT but are now challenging primary care providers--such as APNs--to learn more about AT to facilitate both client trust and high quality care.

APPENDIX A

COVER LETTER
CONSENT FORM TO STUDY RESPONDENTS
REMINDER POSTCARD

COVER LETTER

Dear Potential Participant,

I am a graduate student in the College of Nursing at Michigan State University and I am working on the completion of my master's thesis.

I am utilizing a questionnaire about Alternative Therapy and its application to Advance Practice Nurses in Michigan. I am inviting you to participate by completing this anonymous written questionnaire.

By completing this questionnaire you will have provided information that is greatly appreciated. As a nurse, I am interested in providing quality care to people in the community and this information will provide information about unexplored areas of APNs and Alternative Therapy. Hopefully this questionnaire will provide information for planning treatment options for patients.

Once again, thank you for considering participation in this study.

Sincerely,

Susan L. Wimpee, R.N., B.S.N.

CONSENT FORM TO STUDY RESPONDENTS

This study is a requirement for a graduate thesis through Michigan State University. It is designed to obtain information about advance practice nursing, and attitudes towards alternative therapies. The information obtained through this study may be used to develop further research on this topic. The completion of the enclosed questionnaire will take approximately 15 minutes.

If you wish to participate, please complete the two--part questionnaire. Place both parts of the questionnaire in the pre-addressed envelope provided and mail. By completing and mailing the questionnaire, you voluntarily agree to participate in the study and imply consent. Participation in the study consists of completing and mailing the questionnaire.

Your participation is voluntary; you may refuse to participate or stop your participation at any time without penalty. By participating you help further information on practitioner use of alternative therapy in advance practice nursing.

All individual responses will remain anonymous. Only group data will be reported in the study. Your responses on the questionnaire will be analyzed only by the principal investigator, Susan Wimpee, R.N., B.S.N. and her thesis committee.

If you have any questions or concerns about this study, please call me or write to the address below.

Thank you for your assistance,

Susan Wimpee, RN., B.S.N.
2323 Cress Creek Dr.
Muskegon, MI, 49444
(616) 733-7585

REMINDER POSTCARD

Just a reminder to send in your Alternative Therapies Survey. If you have already done so, I would like to thank you for your participation. If you need another questionnaire, please call 1(616) 733-7585, leave your address, and one will be sent to you.

Thank you,

Susan Wimpee R.N., B S.N.
MSU Graduate Program

APPENDIX B

GLOSSARY