# USE OF COMPLEMENTARY AND ALTERNATIVE THERAPIES: A PILOT SURVEY

by

HECTOR ORTIZ CINTRON

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Thesis Chair: Dr. Kelly Allred

# ABSTRACT

Meeting patient expectations in relation to pain management is an essential component of palliative and end-of-life care. However, previous research has demonstrated that pain is highly prevalent, especially during the four months prior to death. Poorly controlled pain contributes to cognitive failure, depression and an inability to complete daily activities. Unfortunately, pain and symptom management are often inadequate for patients placed in hospice care. The purpose of this study is to evaluate the perspectives of hospice nurses on complementary and alternative therapies to determine if there is an educational need in order to aide in the management of chronic pain in older adults. A survey was developed in order to determine the nursing perceptions of complementary and alternative therapies. A total of 24 participants were recruited. The survey targeted 28 complementary and alternative therapies most commonly used as defined by National Institute for Complementary and Alternative Medicines (NCCAM). Each therapy was ranked on several aspects including perceptions, personal experience, and present knowledge and training. After completing the survey it was found that all participants were either eager or open to use some complementary and alternative therapies in their workplace, in spite of having an educational barrier on how to implement them, and wanted these therapies to become available to patients, families, and staff.

# DEDICATION

For my partner, who continued to push me throughout nursing school. When I wanted to quit, he gave his help and support.

For my mother, who was always available to celebrate my successes and encourage me through rough times.

## ACKNOWLEDGEMENTS

This thesis would not have been completed without my thesis chair, Dr. Kelly Allred. She gave me motivation and guidance, making this project the achievement it is today. I did not say it enough to her face, but thank you. Thank you to my committee members, Dr. Joyce Burr and Dr. Jeffery Cassisi for providing insight into the study. To my family, for providing laughter, support and words of wisdom when I needed them.

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# CHAPTER ONE: INTRODUCTION

Meeting patient expectations in relation to pain management is an essential component of palliative and end-of-life care. However, 60% of a sample study revealed that pain is highly prevalent, especially during the four months prior to death (Smith et al., 2010). Poorly controlled pain contributes to cognitive failure, depression and an inability to complete daily activities (Prommer & Ficek, 2012). Unfortunately, pain and symptom management are often inadequate for patients placed in hospice care (Wilkie & Ezenwa, 2012).

Reid et al. (2011) states there is a growing recognition that a solely pharmacological approach is inadequate in providing optimal pain management. They further write up to 50% of community-dwelling older adults report experiencing pain daily. Comparatively, Reid (2011) reports half of nursing home residents report experiencing pain daily. This pain is occurring even though this group has the highest rates of chronic analgesic use (Reid, 2011). According to Cavalieri (2002), elderly populations are more susceptible to being undertreated and experience ineffective pain management. Implementing a holistic approach may aide in the pain management of older adults and decrease discomfort (Cavalieri, 2002).

Holistic treatment often incorporates aspects of pharmacological as well as non-pharmacological interventions in order to completely manage pain in the elderly. Studies have demonstrated that combining non-pharmacologic interventions into the care of older patients can yield promising results (Bruckenthal, 2010). Moreover, when complementary therapies are used in conjunction with conventional medications, older adults report enhanced pain management (Bruckenthal, 2010). A pilot study (n=90) that took place in a nursing home found 49% to 84% of residents suffered from moderate to severe pain intensity over the last three months (Tse &

Ho, 2013). The intervention set in place was a biweekly course that educated nurses and residents on complementary methods of pain management (e.g. physiotherapy, gardening, and exercise). The results indicated that proper education in non-pharmacological interventions played a key role in significantly reducing pain scores from 3.66±1.74 to 2.88±2.02. Pain was measured on a scale of 0-10 with 0 indicating no pain and 10 being the worst pain experienced by that patient.

According to the 2010 United States census, 40.3 million people were 65 years and over on April 1, 2010. This population is expected to reach 70 million by the year 2030 (United States Census Bureau, 2010). As a result of this demographic shift, the complexities of chronic pain management in the elderly will become increasingly important (Bruckenthal, 2010). In order to more completely treat chronic pain, a multimodal approach that incorporates conventional and complementary therapies needs to be researched. A group that works towards reducing chronic pain, specifically at the end of life, is hospice.

Hospice is an organization that specializes in the palliative care of a terminally ill or seriously ill patient. Hospice addresses all symptoms of a disease, with a special emphasis on controlling a patient's pain and discomfort (National Hospice and Palliative Care Organization [NHPCO], 2012). According to Oliver et al. (2008), pain is reported in 76% to 90% of hospice patients. An end goal of hospice is pain relief within 48 hours of assessment (NHPCO, 2012). Of the 1.65 million hospice patients, 25.8% are not brought to a comfortable level within 48 hours. Ultimately, 11.9% of hospice patients do not get relief from their pain (NHPCO, 2012).

There is little or no research on hospice nurses and their perceptions on complementary and alternative therapies (CAT). However, studies have shown that there are benefits to combining conventional and complementary therapies when managing pain (Bruckenthal, 2010).

Surveying hospice nurses on CAT may determine if there is an educational need that may ultimately lead to the successful use of these therapies in the management of chronic pain. This research examines hospice nurses' attitudes, knowledge, training and experiences with CAT. In addition, perceived barriers, sources of information and openness to implement CAT are explored.

**Therapies Evaluated in the Survey**

Nurses will be asked to provide their perspectives on 28 selected therapies that represented the main categories of CAT as defined by the National Center for Complementary and Alternative Medicine. The following is an explanation of the therapies evaluated in the survey:

1. Diet: The kinds of food that a person eats in order to maintain or attain their perception of health (Fontaine, 2011).
2. Megavitamins: A dietary supplement that contains three or more vitamins and minerals that does not include herbs, hormones, or drugs (Fontaine, 2011).
3. Exercise: Activities requiring physical effort to sustain or improve health and fitness (Fontaine, 2011).
4. Acupuncture: A therapy based on use of needles to stimulate specific points on the body, known as acupuncture points, that can relieve pain, cure certain illnesses, and promote wellness (Fontaine, 2011).
5. Herbal Medicine: A popular alternative therapy in the United States that involves the use of plants for medicinal purposes (Fontaine, 2011).
6. Homeopathic Medicine: A self-healing system, assisted by small doses of remedies or medicines, that is useful in a variety of acute and chronic disorders (Fontaine, 2011).

7. Native American Medicine: The combined health practices of over 500 distinct nations that inhabited the Americas before the European arrival at the end of the fifteenth century. Commonalities found among tribes included spirituality, smudging, drumming, pipe ceremonies, singing, peyote, healing touch and herbs (Fontaine, 2011).
8. Traditional Chinese Medicine (TCM): A broad range of medicinal practices that were developed in China including Qigong, acupuncture, massage and herbal medicine. The focus of TCM is on the patient rather than disease with the goal to promote health and improve the quality of life (Fontaine, 2011).
9. Electromagnetic/Magnet Applications: A therapy that focuses on how living organisms interact with electromagnetic fields. Concepts included in the topic are the geomagnetic field, endogenous/exogenous magnetic therapies, ionizing/nonionizing fields and resonance (Fontaine, 2011).
10. Acupressure: A theory based on applying pressure or stimulation to specific points on the body, known as acupuncture points, that can relieve pain, cure certain illnesses, and promote wellness through finger pressure (Fontaine, 2011).
11. Chiropractic/Manipulative Therapy: The third largest independent health profession in the United States, following conventional medicine and dentistry, and the most frequently used form of alternative medicine. The therapy treats patients through the manipulation of their musculoskeletal system, especially the spine (Fontaine, 2011).
12. Massage: The manipulation of the soft tissues of the body with the hands to relieve pain or tension (Fontaine, 2011).

13. Therapeutic Touch: A non-contact or contact therapy in which practitioners interact with energy fields in order to reduce pain, anxiety and support the body's innate healing abilities (Fontaine, 2011).
14. Art Therapy: A form of psychotherapy involving encouragement of free self-expression through painting, drawing, or modeling (Fontaine, 2011).
15. Music Therapy: The use of music interventions to accomplish individualized goals within a therapeutic relationship by a credentialed professional who has completed an approved music therapy program (Fontaine, 2011).
16. Behavioral Medicine: A field of medicine concerned with the integration of knowledge in the biological, behavioral, psychological, and social sciences relevant to health and illness (Fontaine, 2011).
17. Biofeedback: A method for learned control of physiological responses of the body. It is a relaxation technique that uses electronic equipment to amplify the electrochemical energy produced by the body responses. Normally out of conscious awareness, biofeedback provides perceptible information that individuals ca use to gain voluntary control over various physiological processes (Fontaine, 2011).
18. Relaxation Techniques: A combination of exercises in order to consciously produce the body's nature relaxation response, characterized by slower breathing, lower blood pressure and a feeling of calm and well-being (Fontaine, 2011).
19. Counseling/Psychotherapy: The provision of assistance and guidance in resolving personal, social, or psychological problems and difficulties by a professional (Fontaine, 2011).

20. Prayer and Spiritual Direction: A form of communication and fellowship with the Deity or Creator (Fontaine, 2011).
21. Meditation: A general term for a wide range of practices that involve relaxing the body and stilling the mind (Fontaine, 2011).
22. Hypnotherapy: The application of hypnosis in a wide variety of medical and psychological disorders. Hypnosis is a state of attentive and focused concentration during which people are highly responsive to suggestion (Fontaine, 2011).
23. Pet Therapy: The use of specifically selected animals as a treatment modality in health and human service settings (Fontaine, 2011).
24. Tai Chi: A successor to Qigong, it is a discipline that combines physical fitness, meditation, and self-defense. Although it is considered a martial art, t'ai chi is mainly practiced today as a health discipline (Fontaine, 2011).
25. Chi (Qi) Gong: A movement oriented therapy that consist of breathing and mental exercises that may be combined with modest arm movements in order to move energy (Fontaine, 2011).
26. Guided Imagery: A state of focused concentration that encourages changes in attitudes, behavior and physiological reactions. Many people consider guided imagery to be a form of hypnosis (Fontaine, 2011).
27. Aromatherapy: The therapeutic use of essential oils of plants to heal the body, mind and spirit. It is an offshoot of herbal medicine with the basis of action the same as that of modern pharmacology (Fontaine, 2011).
28. Environmental Medicine: A branch of medicine that studies environmental inputs and the individual's physical, mental and emotional responses to them (Fontaine, 2011).

# CHAPTER TWO: METHODS

## Design and Instrument

A descriptive exploratory correlational design was used. A survey was modified (with permission, Appendix A) for use with hospice nurses from a survey developed by Tracy et al. (2005) to determine the use of CAT among critical care nurses. The survey was reviewed by a hospice nurse for validation and edited before the study began. The survey comprised 7 content areas:

1. Demographic information
2. Professional and work setting information
3. Type of evidence required to recommend or use conventional therapy or CAT,
4. Attitudes toward therapies (legitimacy, perceived benefit vs. harm, openness to use, desire to increase availability of, and helpfulness)
5. Current and desired knowledge or training
6. Personal and professional use (including recommendations and referrals), and
7. Characteristics of the environment (barriers to CAT, stress, and sources of CAT information).

A copy of the survey can be found in Appendix B.

## Human Subjects

Approval was obtained from the Institutional Review Board (IRB) at the University of Central Florida (Appendix C) and a letter of support obtained from the hospice involved in the research (Appendix D). The surveys were not linked with any identifying information. A separate sheet was used to collect the names of participants who completed the survey only for the purpose of distributing the incentive to participate. Each participant received a $5 gift card to

a local coffee shop for completing the survey. Participants were able to withdraw from the study at any time without penalty. There were no risks associated with the study.

**Sample and Setting**

A convenience sample was used for this study and included hospice nurses providing direct care to hospice patients. A total of twenty-four nurses responded to the survey. This is limited to the number employed at the participating agency. The survey was available for registered nurses (RN) who manage chronic pain in adults aged 65+ in both inpatient and home-based settings and exclude non-RN's and RN's in administration.

**Procedures**

Once IRB approval was obtained, a meeting with the Director of Education and the Nurse Mentor at the hospice agency was scheduled. Prior to the meeting the Director of Education was communicating via email and telephone with the principal investigator, and in those communications it was determined that the agency preferred the survey be paper-pencil rather than electronic. At the meeting the agency representatives were presented with a document explaining the research and 24 paper-pencil surveys by the principal investigator and the co-investigator. This research qualified for waiver of the written consent process. The surveys were collected at the end of a two week period. All participants were fluent in the English language, so all oral and written information was provided in English.

**Measurements**

The measures used in this study was a survey adapted from Tracy et al. (2005) consisting of demographic information, Likert scale questions, and a section for quantitative information was provided at the end of the survey. The survey examined 290 variables. Descriptive statistics of survey data were completed on SPSS for Windows (version 20).

# CHAPTER 3: RESULTS

## Demographic Data

A total of 24 nurses from the hospice participated in the study. This included 22 women and 2 men. The mean age among participants was 50.3 and ranged from 34 to 67 years. Of the 24 participants 91.7% (n=22) frequently worked with patients in chronic pain and 8.3% (n=2) moderately worked with patients in chronic pain over the age of 65. The amount of experience in hospice ranged from 0.5 to 25 years with an average amount of experience being 7.8 years. Education levels varied and included Associates (n=16), Diploma (n=3) and Baccalaureate (n=5) degrees. The majority of respondents were Caucasian (n=15) and did not have a national certification in hospice (n=16). Further demographic information is found in Table 1 (Appendix E).

## Quantitative Analysis

In the survey, nurses were asked to determine the amount of evidence needed to implement both CAT and orthodox treatments in their practice. A Likert Scale was used with 1 being unimportant, 2 indicating somewhat unimportant, 3 is somewhat important and 4 indicating essential. The participants deemed it essential to have a proven mechanism of action for orthodox treatments ($M$ = 3.8) and CAT therapies ($M$=3.9). However, the overall trend showed that nurses required less evidence to implement CAT when compared to conventional therapy. Further information is found in table 2 (Appendix E).

The nurse's view of the legitimacy of the 28 CAT's was asked in the survey. The scale in this question included 1 indicating the therapy was legitimate, 2 indicating the therapy was not legitimate, and 3 indicating the participant did not know if the therapy was legitimate or not. The participants ranked music therapy (95.8%: n=23), massage (95.8%: n=23), prayer/spiritual

direction (91.7%: n=22), pet therapy (87.5%: n=21), and meditation (87.5%: n=21) as the most legitimate CATs. While hypnotherapy (33.3%: n=8) and megavitamins (29.2%: n=7) were the least legitimate therapies. The remaining therapies and the nurses responses to this question are found in table 3 (Appendix E).

When nurses were asked about therapies they thought patients used based on what they know about their patients use and perspective on the therapies it was found that nurses think patients use prayer/spiritual direction (87.5%: n=21) most, followed by music therapy (79.2%: n=19), then therapeutic touch (75%: n=18), relaxation techniques (75.3%: n=18) and pet therapy (75%: n=18) rounded out the top five. Table 4 (Appendix E) shows the remaining therapies not discussed.

Then, the survey explored the knowledge nurses had on the 28 therapies and whether or not they desired additional training. To determine how much knowledge the nurse already knew about the subject matter a Likert scale was used where 0 indicated with none, 1 indicated some, and 2 indicated a lot of knowledge regarding a specific therapy. Nurses were most knowledgeable on prayer/spiritual direction (n=24: *M*=1.5), diet/exercise (n=24: *M*=1.3), pet therapy (n=24: *M*=1.3), and therapeutic touch (n=24: *M*=1.3). Traditional Chinese Medicine (n=24: *M*=0) and Chi (Qi) Gong (n=24: *M*=0.2) were among the lowest therapies that nurses knew about. The therapies nurses wanted additional training on were massage (91.6%: n=24) and diet (83.3%: n=20). Additional information is found in Table 5 (Appendix E).

In addition to determining the complementary and alternative therapies nurses believe patients use, the survey also asked about the therapies nurses themselves used. Results indicate nurses use exercise (87.5%: n=21), massage (83.3%: n=20), relaxation techniques (83.3%: n=20)

and prayer/spiritual direction (79.2%: n=19) the most. Chi (Qi) Gong ranked the lowest for personal use at 95.3% (n=24). Further information is found in table 6 (Appendix E).

In addition to establishing the aforementioned topics, the survey determined the nurses perspective on which therapies were the most beneficial and most harmful. A Likert scale was established with the following correlates: 1 = harmful, 3 = neutral, 5 = beneficial. The numbers 2 and 4 were present in the survey placed in numerical order but were not titled. Prayer/spiritual direction (n=24: *M*=4.8), pet therapy (n=24: *M*=4.6) and massage (n=24: *M*=4.6) were identified by nurses as most beneficial. Electromagnetic therapy received the lowest score *M*=2.9 (n=24) indicating nurses did not think it was beneficial. Table 7 (Appendix E) examines the remaining therapies.

Next, the survey determined which therapies were recommended by the nurse and which were requested by the patient. The most recommended therapy was prayer/spiritual direction at 91.6% (n=24) with diet/exercise, massage and pet therapy all at 87.5% (n=24). None of the nurses recommend electromagnetic therapy. The most requested therapy by patients were massage (95.8%: n=24) and prayer/spiritual direction (91.7%: n=24). The remaining therapies can be examined in Table 8 (Appendix E).

Nursing perspectives on which symptoms were alleviated was assessed in the survey. Both anxiety (95.8%: n=23) and stress (95.8%: n=23) were reported as the top symptoms helped by these therapies. Conversely, pain/discomfort (95.8%: n=23) and restlessness (95.8%: n=23) were viewed least helped by the therapies studied. For further elaboration, refer to Table 9 (Appendix E).

Barriers to implementing complementary and alternative therapies were also evaluated and the biggest barriers were lack of staff training (75%: n=18) and lack of knowledge regarding

appropriateness of CAT (62.5%: n=24). The survey continued by examining which group (patients, family, nurses, other staff) was most likely to benefit from implementing CAT using a Likert scale with the following: 0 = not helpful, 1 = somewhat helpful, 2 = moderately helpful, and 3 = very helpful. Out of patients, family, nurses and other staff the participants determined patients would receive the most benefit with an average of 2.6 (n=24). Additionally, the sample group was questioned on whether or not to increase availability of CAT to patients, families and nursing staff. The scale used for this question was as follows: 0 = not at all, 1 = somewhat, 2 = moderately, and 3 = very much. The participants reported patients and families at 2.4 and nursing staff at 2.1. Refer to table 11 (Appendix E). The final question examined how open the nurses were to utilizing CAT with a Likert Scale with the following: 0 = not open to use, 1 = reluctant to use, 2 = open to use, and 3 = eager to use. The responses averaged 2.5 (n=24).

# CHAPTER FOUR: DISCUSSION

The survey examined a variety of topics dealing with the nursing perspective of CAT in the work place with a hospice patient population. The nurses were questioned on evidence required to implement pharmacologic treatment and CAT. It was found that the majority of participant's required scientific evidence and published studies to implement traditional treatments and relied more on personal use to implement CAT. When CAT was implemented, the majority of nurses thought the therapies were helpful in alleviating anxiety and stress. However, the largest barrier to implementing CAT was lack of staff training.

When discussing the legitimacy of the 28 therapies it was found that the majority (51% or greater) viewed 20 of the therapies as legitimate. In addition, if a participant did not respond that they viewed the therapy as legitimate, they tended to report that they did not know if it was legitimate. When few respondents indicated a therapy as legitimate, the majority still reported the therapy as having a "neutral" effect on the harm versus benefit scale. For example, although only 16.7% reported Chi (Qi) Gong as legitimate, 75% reported that they do not know, the average reported that they viewed the therapy as having neutral effects. Although the legitimacy of a majority of therapies was reported, several of the therapies were not recommended by the nursing staff or used in their practice. The therapies that were not recommended were often associated with a lack of knowledge about the therapy.

When respondents knew little about the therapy, the participants tended to rank it as having a neutral effect and often desired additional training in the therapy. For example, the lowest score on the harmful to beneficial scale was neutral. However, the lowest score for present knowledge was "none." Case in point, although biofeedback averaged no present knowledge ($M$=0.5) it was perceived as having a neutral effect ($M$=3.5) and over 70% wanted

additional training. Thus, it appears that respondents are willing to keep an open mind about potential benefits of therapies until they have acquired more knowledge.

Out of the 24 respondents all were open or eager to use CAT despite the barriers they perceived in their work setting. The majority of participants reported that they wanted additional education and training for most therapies and wanted to increase the availability of CAT in their hospice setting, not only for patients and their families but also for nurses. The therapies used most often are those that respondents had knowledge of, personally used, and those viewed as legitimate and beneficial. The therapies used by nurses and requested by patients were also those that tend to be viewed as popular therapies.

Much of the data obtained in this research were related to the use of CAT to treat multiple symptoms experienced by the hospice patient. Future research may ask more questions about the use of CAT to specifically alleviate chronic pain in this patient population.

**Limitations**

The results of this study cannot be generalized to all hospice nurses due to the small number of participants and the resource limitations of the researcher. In addition, a convenience sample was used to complete the survey and perhaps resulted in a potential response bias. Possibly, only nurses supportive of CAT returned the survey. The sample was also collected from the same hospice thereby possibly limiting the diversity of the population by age, experience and level of education. The results of the study are reflective of this hospice but may not be consistent with the views and opinions of hospice nurses from other locations either locally and nationally. A larger sample size that targeted hospice nurses at the national level would yield more accurate results. In addition, the therapies in this survey were not specifically defined in the survey unlike in this paper. This was purposely omitted because the process would

have been more cumbersome for the nurses and if the participant did not the therapy, they were probably not using it in their practice. How and when the participants took the survey was not monitored. This could lead the participants to compare answers and skew the results of the survey. The survey did not cover all CAT therapies currently being practiced.

**Recommendations for Practice and Education**

The survey established that in order for CAT to be implemented in a hospice setting the nurses need education on the therapies. Although CAT is not without risk, health care providers need to become more knowledgeable about these therapies because patients and families are requesting them. CAT may have a unique place in end-of-life care because these patients may not be able to physiologically tolerate conventional therapies. Although there are barriers to implementing CAT it may be beneficial to promote common therapies that do not require extensive training or are taught as part of a nursing curriculum or in the practice setting for direct care nurses.

**Recommendations for Future Research**

Future research should assess pain management combining pharmacologic and CAT therapies. The current study needs to be duplicated and expanded to a larger sample size in order to establish a more accurate perspective of CAT in end-of-life care. Although the amount of participants in the study was small, all agreed to be open or eager to use CAT in their work settings. This unanimous response needs to be acted on in order to aide in pain management of hospice patients. While this study was directed at pain management, it should be noted that CAT has the potential to alleviate other bothersome symptoms at the end-of-life. Studies looking at other symptoms could also be designed and would be beneficial to patient and health care providers to more fully understand if CAT is helpful for a variety of symptoms.

The largest barrier to use of CAT is lack of staff training and lack of knowledge. In order for CAT to be implemented further research is needed to examine potential benefits and consequences of available therapies. Until research is established, hospice nurses can implement more mainstream therapies that do not require extensive training (i.e. massage, pet therapy, guided imagery and music therapy) in order to provide more comfort in end-of-life care.

# APPENDIX A: EMAIL FROM SURVEY AUTHOR

From: "Tracy, Mary Fran" <MTRACY1@Fairview.org>
Date: June 24, 2013 at 9:58:47 EDT
To: 'abdiel.ortiz' <abdiel.ortiz@knights.ucf.edu>
Subject: RE: Clinical Nurse Perspectives on CAT

Mr. Ortiz,
I received your email and have attached the survey for you to use with your project. Best wishes!
Mary Fran

Mary Fran Tracy, PhD, RN, CCNS, FAAN
Critical Care Clinical Nurse Specialist
University of Minnesota Medical Center, Fairview
Minneapolis, MN 55455
Phone: 612-273-6417
Pager: 612-899-7047

From: abdiel.ortiz [mailto:abdiel.ortiz@knights.ucf.edu]
Sent: Sunday, June 23, 2013 3:43 PM
To: Tracy, Mary Fran
Subject: Clinical Nurse Perspectives on CAT

Dr. Tracy,

My name is Hector Ortiz Cintron and I am currently involved in undergraduate research at the University of Central Florida as a student nurse. The topic I am researching is the "Use of Complementary and Alternative Therapies for Older Adults with Chronic Pain: A Survey of Hospice Nurses." While reviewing articles I noticed that you completed a similar study but on the perceptions of critical care nurses back in 2005. I am writing in order to request your permission to use the survey in your study to aide in my research. If possible, please send it as an attachment via email. Below you will find a citation for the article. I am looking forward for your response.

Tracy, M. F., Lindquist, R., Savik, K., Watanuki, S., Sendelbach, S., Kreitzer, M. J.,…Berman, B. (2005). Use of complementary and alternative therapies: A national survey of critical care nurses. *American Journal of Critical Care, 14*(5), 404-414.

Thank you for your time,

Hector A. Ortiz

# APPENDIX B: DATA COLLECTION INSTRUMENT

# Use of Complementary and Alternative Therapies for Older Adults with Chronic Pain: A Pilot Survey of Hospice Nurses

Please read each question carefully. There are no right or wrong answers. Your first thought is usually the best. **All answers are important.** Please make checks or circles to indicate your response. **Please note the survey is two-sided.**

**I. Demographic and Work Setting Information**

1. Gender (Check one):
   - Female.....___ 1
   - Male .....___ 2

2. How often do you work with patients in chronic pain over the age of 65? (Circle one)

   Not at all 0 Rarely 1 Moderately 2 Frequently 3

3. What type of geographical region best describes the majority of your **hospice** visits? (Check one)
   - Urban area .....___ 1
   - Suburban area .....___ 2
   - Rural area .....___ 3

4. How many hours per week do you spend in your **hospice** role? _____ hours/week

5. Years of **hospice** experience: _____ years (if < 1 year: _____ months)

6. Years of experience as a **registered nurse**: _____ years (if < 1 year: _____ months)

7. In what year were you born? 1 9 ___ ___

8. Education: Check the highest **nursing** degree/credential you have earned. (Check one)
   - Associate degree .....___ 1
   - Diploma degree.....___ 2
   - Bachelor's degree (BS, BSN, etc.) .....___ 3
   - Master's degree (MS, MSN, MN, etc.) .....___ 4
   - Doctoral degree (PhD, DNS, etc.) .....___ 5
   - Other: Describe _____ .....___ 6
   - No degree in nursing .....___ 7

9. What (if any) is your highest academic degree **outside of nursing**? (Check one)
   - None .....___ 1
   - Associate of Arts (AA) .....___ 2
   - Bachelor's degree (BA).....___ 3
   - Bachelor's degree (BS).....___ 4
   - Master's degree (MA, MS, MPH, MBA, etc.) .....___ 5
   - Other: Describe _____.....___ 6

10. What are your professional national certifications (Check **all** that apply):

- None ..... ___ 1
- ACHPN ..... ___ 2
- CHPN ..... ___ 3
- CHPP ..... ___ 4
- CHPLN ..... ___ 5
- CHPNA ..... ___ 6
- CHPCA ..... ___ 7
- CPLC ..... ___ 8
- Other: Describe _____ ..... ___ 9

11. What is your current marital status? (Check one)

- Married ..... ___ 1
- Living in a marriage-like relationship ..... ___ 2
- Divorced or Separated ..... ___ 3
- Widowed ..... ___ 4
- Never married ..... ___ 5

12. Which group(s) below best describe(s) your racial/ethnic background? (Check **all** that apply)

- Asian or Pacific Islander ..... ___ 1
- American Indian or Alaskan Native ..... ___ 2
- Black or African American ..... ___ 3
- Hispanic ..... ___ 4
- White or Caucasian ..... ___ 5
- Other or wish not to disclose ..... ___ 6

13. Religious preference (Check one):

- Protestant ..... ___ 1
- Catholic ..... ___ 2
- Jewish ..... ___ 3
- Other: Describe _____ ..... ___ 4
- None ..... ___ 5

14. How important is religion to you? (Check one):

- Not at all ..... ___ 1
- Somewhat important ..... ___ 2
- Very important ..... ___ 3
- Don’t know ..... ___ 4

## II. Evidence

15. This question has **two parts**. **Circle one number in column (a) and one number in column (b)** for each type of evidence. How important are the following types of evidence to you to consider recommending or using:
    **(a) an orthodox (traditional or conventional) treatment** such as oxycodone, acetaminophen, etc; and
    **(b) a complementary/alternative therapy** such as meditation, prayer, etc.?

| Type of Evidence | (a) an orthodox (traditional or conventional) treatment | | | | (b) a complementary/alternative therapy | | | |
|---|---|---|---|---|---|---|---|---|
| | Unimportant | Somewhat unimportant | Somewhat important | Essential | Unimportant | Somewhat unimportant | Somewhat important | Essential |
| a. Proven mechanism of action | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| b. Proposed mechanism of action | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| c. Clinical trials | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| d. Epidemiologic data | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| e. Published case studies | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| f. Successful use in my own practice | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| g. Colleague recommendation | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| h. Personal use | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| i. Patient's report | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |

## III. Attitudes

16. Circle the most appropriate column reflecting **your view of the legitimacy of** each of the following complementary/alternative therapies (Circle one number for each therapy).

| **Therapy** | **Legitimate practice** | **Not legitimate** | **Don't know** |
|---|---|---|---|
| a. Diet | 1 | 2 | 3 |
| b. Megavitamins | 1 | 2 | 3 |
| c. Exercise | 1 | 2 | 3 |
| d. Acupuncture | 1 | 2 | 3 |
| e. Herbal Medicine | 1 | 2 | 3 |
| f. Homeopathic Medicine | 1 | 2 | 3 |
| g. Native American Medicine | 1 | 2 | 3 |
| h. Traditional Chinese Medicine | 1 | 2 | 3 |
| i. Electromagnetic/Magnet Application | 1 | 2 | 3 |
| j. Acupressure | 1 | 2 | 3 |
| k. Chiropractic/Manipulative Therapy | 1 | 2 | 3 |
| l. Massage | 1 | 2 | 3 |
| m. Therapeutic Touch | 1 | 2 | 3 |
| n. Art Therapy | 1 | 2 | 3 |
| o. Music Therapy | 1 | 2 | 3 |
| p. Behavioral Medicine | 1 | 2 | 3 |
| q. Biofeedback | 1 | 2 | 3 |
| r. Relaxation Techniques | 1 | 2 | 3 |
| s. Counseling/Psychotherapy | 1 | 2 | 3 |
| t. Prayer and Spiritual Direction | 1 | 2 | 3 |
| u. Meditation | 1 | 2 | 3 |
| v. Hypnotherapy | 1 | 2 | 3 |
| w. Pet Therapy | 1 | 2 | 3 |
| x. Tai Chi | 1 | 2 | 3 |
| y. Chi (Qi) Gong | 1 | 2 | 3 |
| z. Guided Imagery | 1 | 2 | 3 |
| aa. Aromatherapy | 1 | 2 | 3 |
| bb. Environmental Medicine | 1 | 2 | 3 |

17. From what you know about your patients' use and perspective on complementary therapies, circle the most appropriate column reflecting what you see your patients use is for each of the following complementary/alternative therapies (Circle one number for each therapy).

| **Therapy** | **Have used in practice** | **Have considered using** | **Have not considered using** |
|---|---|---|---|
| a. Diet | 1 | 2 | 3 |
| b. Megavitamins | 1 | 2 | 3 |
| c. Exercise | 1 | 2 | 3 |
| d. Acupuncture | 1 | 2 | 3 |
| e. Herbal Medicine | 1 | 2 | 3 |
| f. Homeopathic Medicine | 1 | 2 | 3 |
| g. Native American Medicine | 1 | 2 | 3 |
| h. Traditional Chinese Medicine | 1 | 2 | 3 |
| i. Electromagnetic/Magnet Application | 1 | 2 | 3 |
| j. Acupressure | 1 | 2 | 3 |
| k. Chiropractic/Manipulative Therapy | 1 | 2 | 3 |
| l. Massage | 1 | 2 | 3 |
| m. Therapeutic Touch | 1 | 2 | 3 |
| n. Art Therapy | 1 | 2 | 3 |
| o. Music Therapy | 1 | 2 | 3 |
| p. Behavioral Medicine | 1 | 2 | 3 |
| q. Biofeedback | 1 | 2 | 3 |
| r. Relaxation Techniques | 1 | 2 | 3 |
| s. Counseling/Psychotherapy | 1 | 2 | 3 |
| t. Prayer and Spiritual Direction | 1 | 2 | 3 |
| u. Meditation | 1 | 2 | 3 |
| v. Hypnotherapy | 1 | 2 | 3 |
| w. Pet Therapy | 1 | 2 | 3 |
| x. Tai Chi | 1 | 2 | 3 |
| y. Chi (Qi) Gong | 1 | 2 | 3 |
| z. Guided Imagery | 1 | 2 | 3 |
| aa. Aromatherapy | 1 | 2 | 3 |
| bb. Environmental Medicine | 1 | 2 | 3 |

## IV. Knowledge/Training

18. This question has **two** parts. **Circle one number in column (a) and one number in column (b)** for each therapy**.**
**(a)** How much **knowledge/training** do you have in each of the following therapies?; and
**(b)** Would you be **interested in additional knowledge/training**?

| **Therapy** | **(a)** How much **knowledge/training** do you have? | | | **(b)** Interested in **additional knowledge/training?** | |
|---|---|---|---|---|---|
| | **None** | **Some** | **A lot** | **No** | **Yes** |
| a. Diet | 0 | 1 | 2 | 0 | 1 |
| b. Megavitamins | 0 | 1 | 2 | 0 | 1 |
| c. Exercise | 0 | 1 | 2 | 0 | 1 |
| d. Acupuncture | 0 | 1 | 2 | 0 | 1 |
| e. Herbal Medicine | 0 | 1 | 2 | 0 | 1 |
| f. Homeopathic Medicine | 0 | 1 | 2 | 0 | 1 |
| g. Native American Medicine | 0 | 1 | 2 | 0 | 1 |
| h. Traditional Chinese Medicine | 0 | 1 | 2 | 0 | 1 |
| i. Electromagnetic/Magnet Applications | 0 | 1 | 2 | 0 | 1 |
| j. Acupressure | 0 | 1 | 2 | 0 | 1 |
| k. Chiropractic/Manipulative Therapy | 0 | 1 | 2 | 0 | 1 |
| l. Massage | 0 | 1 | 2 | 0 | 1 |
| m. Therapeutic Touch | 0 | 1 | 2 | 0 | 1 |
| n. Art Therapy | 0 | 1 | 2 | 0 | 1 |
| o. Music Therapy | 0 | 1 | 2 | 0 | 1 |
| p. Behavioral Medicine | 0 | 1 | 2 | 0 | 1 |
| q. Biofeedback | 0 | 1 | 2 | 0 | 1 |
| r. Relaxation Techniques | 0 | 1 | 2 | 0 | 1 |
| s. Counseling/Psychotherapy | 0 | 1 | 2 | 0 | 1 |
| t. Prayer and Spiritual Direction | 0 | 1 | 2 | 0 | 1 |
| u. Meditation | 0 | 1 | 2 | 0 | 1 |
| v. Hypnotherapy | 0 | 1 | 2 | 0 | 1 |
| w. Pet Therapy | 0 | 1 | 2 | 0 | 1 |
| x. Tai Chi | 0 | 1 | 2 | 0 | 1 |
| y. Chi (Qi) Gong | 0 | 1 | 2 | 0 | 1 |
| z. Guided Imagery | 0 | 1 | 2 | 0 | 1 |
| aa. Aromatherapy | 0 | 1 | 2 | 0 | 1 |
| bb. Environmental Medicine | 0 | 1 | 2 | 0 | 1 |

## V. Personal Experience

19. Have you **personally used (self-administered)** or **personally consulted provider(s)** of any complementary/alternative therapies? (Circle one number for therapy)

| **Therapy** | **No; Have not used/consulted** | **Yes; Personally used or consulted provider(s)** |
|---|---|---|
| a. Diet | 0 | 1 |
| b. Megavitamins | 0 | 1 |
| c. Exercise | 0 | 1 |
| d. Acupuncture | 0 | 1 |
| e. Herbal Medicine | 0 | 1 |
| f. Homeopathic Medicine | 0 | 1 |
| g. Native American Medicine | 0 | 1 |
| h. Traditional Chinese Medicine | 0 | 1 |
| i. Electromagnetic/Magnet Applications | 0 | 1 |
| j. Acupressure | 0 | 1 |
| k. Chiropractic/Manipulative Therapy | 0 | 1 |
| l. Massage | 0 | 1 |
| m. Therapeutic Touch | 0 | 1 |
| n. Art Therapy | 0 | 1 |
| o. Music Therapy | 0 | 1 |
| p. Behavioral Medicine | 0 | 1 |
| q. Biofeedback | 0 | 1 |
| r. Relaxation Techniques | 0 | 1 |
| s. Counseling/Psychotherapy | 0 | 1 |
| t. Prayer and Spiritual Direction | 0 | 1 |
| u. Meditation | 0 | 1 |
| v. Hypnotherapy | 0 | 1 |
| w. Pet Therapy | 0 | 1 |
| x. Tai Chi | 0 | 1 |
| y. Chi (Qi) Gong | 0 | 1 |
| z. Guided Imagery | 0 | 1 |
| aa. Aromatherapy | 0 | 1 |
| bb. Environmental Medicine | 0 | 1 |

## VI. Professional Experiences

20. This question is asked to determine what you believe about **the overall effects** of these therapies. Please circle the number that **best** reflects your belief about each therapy on a scale of 1 ("Harmful") to 5 ("Beneficial").

| **Therapy** | **Harmful** | | **Neutral** | | **Beneficial** |
|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** |
| a. Diet | 1 | 2 | 3 | 4 | 5 |
| b. Megavitamins | 1 | 2 | 3 | 4 | 5 |
| c. Exercise | 1 | 2 | 3 | 4 | 5 |
| d. Acupuncture | 1 | 2 | 3 | 4 | 5 |
| e. Herbal Medicine | 1 | 2 | 3 | 4 | 5 |
| f. Homeopathic Medicine | 1 | 2 | 3 | 4 | 5 |
| g. Native American Medicine | 1 | 2 | 3 | 4 | 5 |
| h. Traditional Chinese Medicine | 1 | 2 | 3 | 4 | 5 |
| i. Electromagnetic/Magnet Applications | 1 | 2 | 3 | 4 | 5 |
| j. Acupressure | 1 | 2 | 3 | 4 | 5 |
| k. Chiropractic/Manipulative Therapy | 1 | 2 | 3 | 4 | 5 |
| l. Massage | 1 | 2 | 3 | 4 | 5 |
| m. Therapeutic Touch | 1 | 2 | 3 | 4 | 5 |
| n. Art Therapy | 1 | 2 | 3 | 4 | 5 |
| o. Music Therapy | 1 | 2 | 3 | 4 | 5 |
| p. Behavioral Medicine | 1 | 2 | 3 | 4 | 5 |
| q. Biofeedback | 1 | 2 | 3 | 4 | 5 |
| r. Relaxation Techniques | 1 | 2 | 3 | 4 | 5 |
| s. Counseling/Psychotherapy | 1 | 2 | 3 | 4 | 5 |
| t. Prayer and Spiritual Direction | 1 | 2 | 3 | 4 | 5 |
| u. Meditation | 1 | 2 | 3 | 4 | 5 |
| v. Hypnotherapy | 1 | 2 | 3 | 4 | 5 |
| w. Pet Therapy | 1 | 2 | 3 | 4 | 5 |
| x. Tai Chi | 1 | 2 | 3 | 4 | 5 |
| y. Chi (Qi) Gong | 1 | 2 | 3 | 4 | 5 |
| z. Guided Imagery | 1 | 2 | 3 | 4 | 5 |
| aa. Aromatherapy | 1 | 2 | 3 | 4 | 5 |
| bb. Environmental Medicine | 1 | 2 | 3 | 4 | 5 |

21. This question has **two parts**. **Circle one number in column (a) and one number in column (b)** for each therapy.
    (a) Have **you recommended** complementary/alternative therapies in your hospice practice?; and
    (b) Have these therapies been **requested by your hospice patients or families**?

| **Therapy** | **(a) You have recommended** | | **(b) Requested by patients/families** | |
|---|---|---|---|---|
| | **No** | **Yes** | **No** | **Yes** |
| a. Diet | 0 | 1 | 0 | 1 |
| b. Megavitamins | 0 | 1 | 0 | 1 |
| c. Exercise | 0 | 1 | 0 | 1 |
| d. Acupuncture | 0 | 1 | 0 | 1 |
| e. Herbal Medicine | 0 | 1 | 0 | 1 |
| f. Homeopathic Medicine | 0 | 1 | 0 | 1 |
| g. Native American Medicine | 0 | 1 | 0 | 1 |
| h. Traditional Chinese Medicine | 0 | 1 | 0 | 1 |
| i. Electromagnetic/Magnet Applications | 0 | 1 | 0 | 1 |
| j. Acupressure | 0 | 1 | 0 | 1 |
| k. Chiropractic/Manipulative Therapy | 0 | 1 | 0 | 1 |
| l. Massage | 0 | 1 | 0 | 1 |
| m. Therapeutic Touch | 0 | 1 | 0 | 1 |
| n. Art Therapy | 0 | 1 | 0 | 1 |
| o. Music Therapy | 0 | 1 | 0 | 1 |
| p. Behavioral Medicine | 0 | 1 | 0 | 1 |
| q. Biofeedback | 0 | 1 | 0 | 1 |
| r. Relaxation Techniques | 0 | 1 | 0 | 1 |
| s. Counseling/Psychotherapy | 0 | 1 | 0 | 1 |
| t. Prayer and Spiritual Direction | 0 | 1 | 0 | 1 |
| u. Meditation | 0 | 1 | 0 | 1 |
| v. Hypnotherapy | 0 | 1 | 0 | 1 |
| w. Pet Therapy | 0 | 1 | 0 | 1 |
| x. Tai Chi | 0 | 1 | 0 | 1 |
| y. Chi (Qi) Gong | 0 | 1 | 0 | 1 |
| z. Guided Imagery | 0 | 1 | 0 | 1 |
| aa. Aromatherapy | 0 | 1 | 0 | 1 |
| bb. Environmental Medicine | 0 | 1 | 0 | 1 |

22. For which of the following **symptoms** that your patients experience, would you find it **helpful** to use complementary/alternative therapies? (Circle one number for each symptom)

| Symptom | No | Yes | Don't know |
|---|---|---|---|
| a. Headaches | 0 | 1 | 2 |
| b. Back Pain | 0 | 1 | 2 |
| c. Pain/Discomfort | 0 | 1 | 2 |
| d. Nausea | 0 | 1 | 2 |
| e. Vomiting | 0 | 1 | 2 |
| f. Anxiety | 0 | 1 | 2 |
| g. Stress | 0 | 1 | 2 |
| h. Restlessness | 0 | 1 | 2 |
| i. Insomnia | 0 | 1 | 2 |

23. Which **barriers**, if any, do you experience in your institution related to the use of complementary/ alternative therapies? (Circle one number for each barrier)

| Barrier | No | Yes | Don't know |
|---|---|---|---|
| a. Physician reluctance in utilization | 0 | 1 | 2 |
| b. Peer reluctance in utilization | 0 | 1 | 2 |
| c. My reluctance to utilize | 0 | 1 | 2 |
| d. Unavailability of credentialed providers | 0 | 1 | 2 |
| e. Lack of knowledge regarding appropriateness of complementary/alternative therapies | 0 | 1 | 2 |
| f. Lack of staff training | 0 | 1 | 2 |
| g. Lack of appropriate equipment | 0 | 1 | 2 |
| h. Lack of time | 0 | 1 | 2 |
| i. Lack of reimbursement | 0 | 1 | 2 |
| j. Institutional concerns about legal issues | 0 | 1 | 2 |

24. How **helpful** do you believe complementary/alternative therapies are to the following groups? (Circle one number for each)

| Group | Not helpful | Somewhat helpful | Moderately helpful | Very helpful |
|---|---|---|---|---|
| a. Patients | 0 | 1 | 2 | 3 |
| b. Family | 0 | 1 | 2 | 3 |
| c. Nurses | 0 | 1 | 2 | 3 |
| d. Other staff | 0 | 1 | 2 | 3 |

25. What **sources of information** have you personally used to gain knowledge of complementary/alternative therapies? (Circle one number for each source)

| Source of information | No | Yes |
|---|---|---|
| a. Peer(s) | 0 | 1 |
| b. Physician(s) | 0 | 1 |
| c. Other provider(s) | 0 | 1 |
| d. Nursing/Health/Medical Journal(s) | 0 | 1 |
| e. Mass media (TV, radio, newspapers, magazines, etc.) | 0 | 1 |
| f. Internet (world wide web, list-serve, etc.) | 0 | 1 |
| g. Coursework or formal training (Please describe and list certifications): | 0 | 1 |
| h. Other (Please describe): | 0 | 1 |

26. How strongly do you desire to **increase availability** of complementary/alternative therapies to the following? (Circle one number for each)

| | Not at all | Somewhat | Moderately | Very much |
|---|---|---|---|---|
| a. **patients and families** in your hospice setting | 0 | 1 | 2 | 3 |
| b. **the nursing staff** for personal use | 0 | 1 | 2 | 3 |

27. In overall, **how open are you** to the utilization of complementary/alternative therapies? (Circle one)

Not open to use 0 Reluctant to use 1 Open to use 2 Eager to use 3

---

If you have additional comments, please write them on the open areas of this survey. This survey was adapted from Tracy, et al. 2005

*Thank you so much for your participation!*

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This survey was adapted from Tracy, et al. 2005

# APPENDIX C: IRB APPROVAL LETTER

University of Central Florida Institutional Review Board Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

# Approval of Exempt Human Research

From: **UCF Institutional Review Board #1 FWA00000351, IRB00001138**

To: **Kelly D. Allred** and Co-PI: **Abdiel Ortiz Cintron**

Date: **January 22, 2014**

Dear Researcher:

On 1/22/2014, the IRB approved the following activity as human participant research that is exempt from regulation:

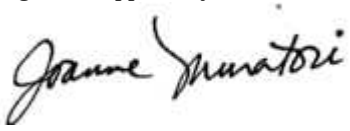
| | |
|---|---|
| Type of Review: | Exempt Determination |
| Project Title: | Use of Complementary and Alternative Therapies in Older Adults with Chronic Pain: A Pilot Survey of Hospice Nurses |
| Investigator: | Kelly D Allred |
| IRB Number: | SBE-13-09802 |
| Funding Agency: | |
| Grant Title: | |
| Research ID: | N/A |

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these changes affect the exempt status of the human research, please contact the IRB. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

In the conduct of this research, you are responsible to follow the requirements of the Investigator Manual. On

behalf of Sophia Dziegielewski, Ph.D., L.C.S.W., UCF IRB Chair, this letter is signed by:

Signature applied by Joanne Muratori on 01/22/2014 10:16:21 AM EST



IRB Coordinator

# APPENDIX D: LETTER OF SUPPORT FROM AGENCY

HOSPICE OF THE COMFORTER
A Compassionate Nonprofit Ministry Since 1990

PROVIDING
COMPASSIONATE CARE
IN ORANGE,
SEMINOLE AND
OSCEOLA COUNTIES
SINCE 1990

480 W. CENTRAL PARKWAY
ALTAMONTE SPRINGS
FLORIDA
32714-2415

PHONE
407-682-0808
FAX
407-682-5737

November 15, 2013

To Kelly Allred:

I am writing this letter in support of Hospice of the Comforter nursing staff having the opportunity to participate in the complementary therapy survey research as administered by your student. Our nurses will be asked to voluntarily complete the surveys within a specified timeframe, and I will collaborate with you in assuring that the surveys are returned.

*Linda Freda RN ,MSN, CHPN*

Linda Freda RN, MSN, CHPN
Director of Education
Hospice of the Comforter

# APPENDIX E: RESULTS

Table 1: Demographics

| Characteristic | Value | Characteristic | Value |
|---|---|---|---|
| **Women (n=24)** | 91.7% | Education in Nursing (n=24) | |
| | | Associate degree | 66.7% |
| | | Diploma | 12.5% |
| | | Bachelor's degree | 20.8% |
| **Marital Status (n=24)** | | National Certifications (n=24) | |
| **Married or marriage like** | 66.3% | None | 66.7% |
| **relationship** | 29.2% | CHPN | 20.8% |
| **Divorced/Separated** | 4.2% | CHPLN | 4.2% |
| **Never married** | | Other | 8.3% |
| **Ethnic Background (n=24)** | | Religious preference (n=24) | |
| **Black/African American** | 25% | Protestant | 25% |
| **Hispanic** | 8.3% | Catholic | 20.8% |
| **White/Caucasian** | 62.5% | None | 12.5% |
| **Other** | 4.2% | Other | 41.7% |
| **Age, median (range), years** | 50.3 (34-67) | Hours worked per week | |
| | | median (range) | 43.7 (24-60) |
| **Years of Experience, median** | | | |
| **(range)** | 18.2 (5-44) | | |
| **As a Registered Nurse** | 7.8 (0.5-25) | | |
| **In Hospice** | | | |
| **Chronic pain exposure (n=23)** | | | |
| **Rarely** | 0% | | |
| **Moderately** | 4.2% | | |
| **Frequently** | 91.7% | | |
| **Patient Geographic Area (n=22)** | | | |
| **Urban** | 29.2% | | |
| **Suburban** | 58.3% | | |
| **Rural** | 4.2% | | |

Table 2: Evidence

| Evidence | | |
|---|---|---|
| | Orthodox (traditional or conventional) treatment **(n):mean** | Complementary/alternative Therapy **(n):mean** |
| **Proven Mechanism of Action** | (23):3.8 | (23):3.9 |
| **Proposed Mechanism of Action** | (23):3.3 | (23):2.9 |
| **Clinical Trials** | (24):2.9 | (23):2.7 |
| **Epidemiologic Data** | (23):3.4 | (22):2.9 |
| **Published Case Studies** | (23):3.0 | (23):2.8 |
| **Successful use in my own practice** | (23):3.8 | (23):3.6 |
| **Colleague Recommendation** | (23):3.2 | (23):3.1 |
| **Personal Use** | (23):3.0 | (23):3.2 |
| **Patient's Report** | (22):3.8 | (22):3.5 |

Table 3: Legitimacy of Therapies

| **Legitimacy of Therapies** (Table in Frequency of Responses) | | | | |
|---|---|---|---|---|
| Therapy (n) | **Legitimate practice** | **Not legitimate** | **Don't know** | **n** |
| Diet | 20 | 2 | 2 | 24 |
| Megavitamins | 6 | 7 | 9 | 24 |
| Exercise | 17 | 4 | 3 | 24 |
| Acupuncture | 13 | 5 | 6 | 24 |
| Herbal Medicine | 17 | 1 | 6 | 24 |
| Homeopathic Medicine | 17 | 3 | 4 | 24 |
| Native American Medicine | 10 | 3 | 11 | 24 |
| Traditional Chinese Medicine (23) | 11 | 3 | 9 | 23 |
| Electromagnetic/Magnet Application | 5 | 4 | 15 | 24 |
| Acupressure | 14 | 6 | 4 | 24 |
| Chiropractic/Manipulative Therapy | 20 | 2 | 2 | 24 |
| Massage | 23 | 0 | 1 | 24 |
| Therapeutic Touch | 21 | 2 | 1 | 24 |
| Art Therapy | 14 | 4 | 6 | 24 |
| Music Therapy | 23 | 0 | 1 | 24 |
| Behavioral Medicine | 18 | 2 | 4 | 24 |
| Biofeedback | 12 | 4 | 8 | 24 |
| Relaxation Techniques | 21 | 0 | 3 | 24 |
| Counseling/Psychotherapy | 20 | 2 | 2 | 24 |
| Prayer and Spiritual Direction | 22 | 1 | 1 | 24 |
| Meditation | 21 | 1 | 2 | 24 |
| Hypnotherapy | 7 | 8 | 9 | 24 |
| Pet Therapy | 21 | 1 | 2 | 24 |
| Tai Chi | 5 | 4 | 15 | 24 |
| Chi (Qi) Gong | 4 | 2 | 18 | 24 |
| Guided Imagery | 16 | 2 | 6 | 24 |
| Aromatherapy | 15 | 3 | 6 | 24 |
| Environmental Medicine | 15 | 2 | 7 | 24 |

Table 4: Patient Usage of Therapies

| Patient Usage of Therapies (Table in Frequency of Responses) | | | | |
|---|---|---|---|---|
| **Therapy** | **Have used in practice** | **Have considered using** | **Have not considered using** | **n** |
| Diet | 16 | 5 | 3 | 24 |
| Megavitamins | 11 | 2 | 10 | 23 |
| Exercise | 15 | 6 | 3 | 24 |
| Acupuncture | 4 | 6 | 13 | 23 |
| Herbal Medicine | 7 | 10 | 5 | 22 |
| Homeopathic Medicine | 8 | 9 | 5 | 22 |
| Native American Medicine | 3 | 5 | 14 | 22 |
| Traditional Chinese Medicine | 4 | 4 | 14 | 22 |
| Electromagnetic/Magnet Application | 0 | 7 | 15 | 22 |
| Acupressure | 2 | 11 | 9 | 22 |
| Chiropractic/Manipulative Therapy | 8 | 9 | 5 | 22 |
| Massage | 16 | 6 | 1 | 23 |
| Therapeutic Touch | 18 | 3 | 2 | 23 |
| Art Therapy | 7 | 7 | 8 | 22 |
| Music Therapy | 19 | 3 | 1 | 23 |
| Behavioral Medicine | 15 | 3 | 4 | 22 |
| Biofeedback | 4 | 8 | 10 | 22 |
| Relaxation Techniques | 18 | 4 | 1 | 23 |
| Counseling/Psychotherapy | 15 | 4 | 3 | 22 |
| Prayer and Spiritual Direction | 21 | 1 | 1 | 23 |
| Meditation | 14 | 3 | 6 | 23 |
| Hypnotherapy | 2 | 1 | 19 | 22 |
| Pet Therapy | 18 | 1 | 3 | 22 |
| Tai Chi | 2 | 4 | 16 | 22 |
| Chi (Qi) Gong | 1 | 3 | 18 | 22 |
| Guided Imagery | 8 | 6 | 8 | 22 |
| Aromatherapy | 12 | 6 | 5 | 23 |
| Environmental Medicine | 2 | 10 | 10 | 22 |

Table 5: Knowledge and Additional Training in Therapies

| **Therapy** | **(a)** How much **knowledge/training** do you have? | **(b)** Interested in **additional knowledge/training?** | | |
|---|---|---|---|---|
| | **(n):Mean** | **No** | **Yes** | **n** |
| Diet | (24):1.3 | 4 | 20 | 24 |
| Megavitamins | (24):0.8 | 10 | 12 | 22 |
| Exercise | (24):1.3 | 6 | 16 | 22 |
| Acupuncture | (24): 0.4 | 7 | 17 | 24 |
| Herbal Medicine | (24):0.9 | 6 | 17 | 23 |
| Homeopathic Medicine | (23):0.8 | 4 | 18 | 22 |
| Native American Medicine | (23):0.2 | 10 | 11 | 21 |
| Traditional Chinese Medicine | (24):0 | 12 | 9 | 21 |
| Electromagnetic/Magnet Applications | (24):0.3 | 10 | 13 | 23 |
| Acupressure | (24):0.4 | 9 | 14 | 23 |
| Chiropractic/Manipulative Therapy | (24):0.9 | 9 | 15 | 24 |
| Massage | (23):1.1 | 2 | 22 | 24 |
| Therapeutic Touch | (24):1.3 | 6 | 18 | 24 |
| Art Therapy | (24):0.7 | 10 | 14 | 24 |
| Music Therapy | (24):1.1 | 5 | 19 | 24 |
| Behavioral Medicine | (23):1 | 9 | 15 | 24 |
| Biofeedback | (23):0.5 | 7 | 16 | 23 |
| Relaxation Techniques | (23):1.3 | 4 | 19 | 23 |
| Counseling/Psychotherapy | (23):1.3 | 6 | 17 | 23 |
| Prayer and Spiritual Direction | (24):1.5 | 5 | 19 | 24 |
| Meditation | (24):1.1 | 5 | 19 | 24 |
| Hypnotherapy | (24):0.4 | 14 | 9 | 23 |
| Pet Therapy | (24):1.3 | 5 | 18 | 23 |
| Tai Chi | (24):0.4 | 13 | 10 | 23 |
| Chi (Qi) Gong | (24):0.2 | 14 | 9 | 23 |
| Guided Imagery | (24):0.9 | 8 | 16 | 24 |
| Aromatherapy | (24):1.1 | 5 | 19 | 24 |
| Environmental Medicine | (23):0.7 | 7 | 17 | 24 |

Table 6: Usage of Therapies among Hospice Nurses

| **Therapy** | **No; Have not used/consulted** | **Yes; Personally used or consulted provider(s)** | **n** |
|---|---|---|---|
| Diet | 8 | 16 | 24 |
| Megavitamins | 19 | 5 | 24 |
| Exercise | 3 | 21 | 24 |
| Acupuncture | 15 | 9 | 24 |
| Herbal Medicine | 10 | 14 | 24 |
| Homeopathic Medicine | 15 | 9 | 24 |
| Native American Medicine | 22 | 2 | 24 |
| Traditional Chinese Medicine | 22 | 2 | 24 |
| Electromagnetic/Magnet Applications | 19 | 5 | 24 |
| Acupressure | 16 | 8 | 24 |
| Chiropractic/Manipulative Therapy | 10 | 14 | 24 |
| Massage | 4 | 20 | 24 |
| Therapeutic Touch | 12 | 12 | 24 |
| Art Therapy | 20 | 4 | 24 |
| Music Therapy | 9 | 15 | 24 |
| Behavioral Medicine | 18 | 6 | 24 |
| Biofeedback | 20 | 4 | 24 |
| Relaxation Techniques | 4 | 20 | 24 |
| Counseling/Psychotherapy | 11 | 13 | 24 |
| Prayer and Spiritual Direction | 5 | 19 | 24 |
| Meditation | 12 | 12 | 24 |
| Hypnotherapy | 21 | 3 | 24 |
| Pet Therapy | 8 | 16 | 24 |
| Tai Chi | 21 | 2 | 23 |
| Chi (Qi) Gong | 23 | 1 | 24 |
| Guided Imagery | 13 | 11 | 24 |
| Aromatherapy | 10 | 14 | 24 |
| Environmental Medicine | 20 | 4 | 24 |

Table 7: Harmful of Beneficial Consequences of Therapies

| **Therapy** | **(n):Mean** |
|---|---|
| Diet | (24):4.5 |
| Megavitamins | (24):3.2 |
| Exercise | (24):4.5 |
| Acupuncture | (24):3.8 |
| Herbal Medicine | (24):3.6 |
| Homeopathic Medicine | (24):3.6 |
| Native American Medicine | (24):3.1 |
| Traditional Chinese Medicine | (24):3.2 |
| Electromagnetic/Magnet Applications | (24):2.9 |
| Acupressure | (24):3.4 |
| Chiropractic/Manipulative Therapy | (24):3.7 |
| Massage | (24):4.6 |
| Therapeutic Touch | (24):4.5 |
| Art Therapy | (24):3.9 |
| Music Therapy | (24):4.5 |
| Behavioral Medicine | (24):3.9 |
| Biofeedback | (24):3.5 |
| Relaxation Techniques | (24):4.5 |
| Counseling/Psychotherapy | (24):4.4 |
| Prayer and Spiritual Direction | (24):4.8 |
| Meditation | (24):4.3 |
| Hypnotherapy | (24):3.0 |
| Pet Therapy | (24):4.6 |
| Tai Chi | (24):3.4 |
| Chi (Qi) Gong | (24):3.2 |
| Guided Imagery | (24):3.8 |
| Aromatherapy | (24):4.1 |
| Environmental Medicine | (24):3.5 |

Table 8: CAT Recommended and Requested

| Therapy | (a)You have recommended | | | (b) Requested by patients/families | | |
|---|---|---|---|---|---|---|
| | No | Yes | n | No | Yes | n |
| Diet | 3 | 21 | 24 | 3 | 20 | 23 |
| Megavitamins | 17 | 6 | 23 | 10 | 13 | 23 |
| Exercise | 3 | 21 | 24 | 7 | 17 | 24 |
| Acupuncture | 18 | 5 | 23 | 19 | 5 | 24 |
| Herbal Medicine | 20 | 4 | 24 | 15 | 9 | 24 |
| Homeopathic Medicine | 21 | 3 | 24 | 12 | 12 | 24 |
| Native American Medicine | 23 | 1 | 24 | 22 | 2 | 24 |
| Traditional Chinese Medicine | 22 | 2 | 24 | 18 | 6 | 24 |
| Electromagnetic/Magnet Applications | 24 | 0 | 24 | 21 | 2 | 23 |
| Acupressure | 20 | 4 | 24 | 17 | 6 | 23 |
| Chiropractic/Manipulative Therapy | 16 | 8 | 24 | 12 | 12 | 24 |
| Massage | 3 | 21 | 24 | 1 | 23 | 24 |
| Therapeutic Touch | 4 | 20 | 24 | 8 | 15 | 23 |
| Art Therapy | 14 | 9 | 23 | 15 | 7 | 22 |
| Music Therapy | 5 | 19 | 24 | 7 | 17 | 24 |
| Behavioral Medicine | 12 | 12 | 24 | 15 | 9 | 24 |
| Biofeedback | 21 | 3 | 24 | 20 | 3 | 23 |
| Relaxation Techniques | 4 | 20 | 24 | 8 | 16 | 24 |
| Counseling/Psychotherapy | 4 | 20 | 24 | 4 | 19 | 23 |
| Prayer and Spiritual Direction | 2 | 22 | 24 | 2 | 22 | 24 |
| Meditation | 8 | 16 | 24 | 11 | 12 | 23 |
| Hypnotherapy | 22 | 2 | 24 | 22 | 2 | 24 |
| Pet Therapy | 3 | 21 | 24 | 6 | 17 | 23 |
| Tai Chi | 23 | 1 | 24 | 22 | 1 | 23 |
| Chi (Qi) Gong | 23 | 1 | 24 | 23 | 1 | 24 |
| Guided Imagery | 16 | 8 | 24 | 20 | 4 | 24 |
| Aromatherapy | 12 | 12 | 24 | 17 | 7 | 24 |
| Environmental Medicine | 21 | 3 | 24 | 21 | 3 | 24 |

Table 9: Symptoms Alleviated by CAT

| Symptom | No | Yes | Don't know |
|---|---|---|---|
| Headaches | 1 | 22 | 1 |
| Back Pain | 2 | 22 | 0 |
| Pain/Discomfort | 23 | 1 | 0 |
| Nausea | 3 | 18 | 3 |
| Vomiting | 4 | 18 | 2 |
| Anxiety | 1 | 23 | 0 |
| Stress | 1 | 23 | 0 |
| Restlessness | 23 | 1 | 0 |
| Insomnia | 24 | 0 | 0 |

Table 10: Barriers

| Barrier | No | Yes | Don't know |
|---|---|---|---|
| Physician reluctance in utilization | 9 | 7 | 8 |
| Peer reluctance in utilization | 15 | 6 | 3 |
| My reluctance to utilize | 19 | 3 | 2 |
| Unavailability of credentialed providers | 5 | 12 | 6 |
| Lack of knowledge regarding appropriateness of complementary/alternative therapies | 4 | 15 | 5 |
| Lack of staff training | 2 | 18 | 4 |
| Lack of appropriate equipment | 4 | 14 | 6 |
| Lack of time | 5 | 14 | 5 |
| Lack of reimbursement | 4 | 11 | 8 |
| Institutional concerns about legal issues | 4 | 13 | 7 |

Table 11: Helpfulness to groups

| Group | (n):Mean | Increase availability of CAT to: | (n):Mean |
|---|---|---|---|
| Patients | (24):2.6 | Patients and Family | (24):2.4 |
| Family | (24):2.5 | Nursing Staff | (24):2.1 |
| Nurses | (24):2.4 | | |
| Other staff | (23):2.3 | | |

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