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Energy Therapies in Nursing Practice: Effects, Barriers, and Limitations

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by

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ABSTRACT

Complementary and alternative medicine (CAM) is a growing field of holistic treatment modalities that aim to promote health and well-being or treat illness. Energy therapies are a subsection of CAM that have the potential to revolutionize the way that nurses manage their patient's comfort. Past research has noted that more money is spent in the United States each year on CAM than is spent on conventional care, and researchers have identified the high spending as a discrepancy due to CAM's general inaccessibility. This study aimed to analyze the existing research and evidence pertaining to the effects of energy therapies and to identify barriers in which energy therapies face, which hinder its integration with conventional clinical practices. Using the *Journal of the Royal Society of Medicine's* 5-step framework, a systematic review of existing literature was performed to determine what CAM is most frequently utilized for and what is most effective in treating. Analysis of selected sources suggests that energy therapies have the potential to assist nurses in increasing a patient's sense of comfort and well-being, while also increasing their rate of healing. Barriers such as the undereducation of clinicians and evidenced-based research criteria necessary for acceptance into conventional facilities have contributed to CAM being grossly inaccessible to conventional patients. An in-depth review of these barriers and their potential solutions is needed in future research to facilitate further CAM integration.

Keywords: *Energy therapies, holistic nursing, biofield therapies, complementary medicine, alternative medicine, therapeutic touch, Reiki, healing touch.*

DEDICATION

This thesis is dedicated to my late grandmother, Dixie Lou Stringer, RN (1939-2019). Without that magnificent woman, nurse, and caretaker, I would never have made it to where I am now. She inspired me to become a nurse from her time at Forrest General Hospital, and she taught me that compassion has a profound impact on healing. The experience of taking care of her through her final years, more often in the hospital than at home, was a trying time for both of us but showed me that I had an immense passion for caretaking. I miss her more than ever and wish so strongly that she could be present to see me graduate with my Bachelor of Science in Nursing degree (BSN).

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LIST OF ABBREVIATIONS

APA	American Psychological Association
BFA	Bio-Field Array
CAM	Complementary and Alternative Medicine
DEP EMF	Dielectrophoretic Electromagnetic Field
HQoL	Health-Related Quality of Life
MS	Multiple Sclerosis
PCP	Primary Care Physician
USM	The University of Southern Mississippi

CHAPTER I: INTRODUCTION

Energy therapies are one of the five subcategories inside of the discipline of complementary and alternative medicine (CAM), as defined by the National Center for Complementary and Alternative Medicine (Coakley & Barron, 2012). Nationally recognized CAM modalities include biofeedback, acupuncture, aromatherapy, chiropractic treatments, energy healing, herbal therapy, folk remedies, homeopathy, hypnosis, relaxation, massage, reflexology, spiritual healing, and yoga (Winslow & Shaprio, 2002). This definition of CAM, adopted by the Cochrane Collaboration, an institute of British policy, is a comprehensive exhibition of the diversity of the discipline:

> Complementary and alternative medicine (CAM) is a broad domain of healing resources that encompasses all health systems, modalities, and practices and their accompanying theories and beliefs, other than those intrinsic to the politically dominant health system of a particular society or culture in a given historical period. CAM includes all such practices and ideas self-defined by their users as preventing or treating illness or promoting health and well-being. Boundaries within CAM and between the CAM domain and that of the dominant health system are not always sharp or fixed (Zollman & Vickers, 1999, p. 694).

For the majority of this study, the focus of the research was on the following specific energy therapies: healing touch, therapeutic touch, Reiki therapy, and biofield therapies. These therapies have more empirical research backing their efficacy and demonstrate the most potential for having an integrated role in the treatment of patients in conventional healthcare settings. Touch therapies, a subcategory of energy therapies, are safe and inexpensive treatment practices that fall directly within the scope of nursing. The

other practices in this category include, but are not limited to, therapeutic touch, healing touch, and Reiki (Wardell & Engebretson, 2008).

The foundational inspiration for this research can be accredited to Dr. Marcy Purnell. Her research findings regarding the effects of energy therapy on red blood cells sparked personal motivation to research other energy therapies, which led to an independent discovery of evidence by the researcher of this study. The evidence that was uncovered was perceived to be inherently significant to the field of nursing, and, thus, became the basis of this research.

In the United States, CAM has become increasingly common. Recent studies suggest that Americans are willing to spend more money on CAM than on conventional primary care (Coakley & Barron, 2012). One study found that "Americans spend between $36 and $47 billion dollars per year on CAM therapies and 36% of U.S. adults currently use CAM" (Coakley & Barron, 2012, p. 55). This amount surpasses the amount spent yearly in the United States on conventional care from primary care physicians (PCPs). CAM is most often used, in addition to conventional care, for chronic and acute health conditions, preventing disease, and achieving wellness (Fonnebo et al., 2007).

Despite CAM therapies being funded by billions of dollars every year, the amount of clinically based research trials regarding energy therapies and their potential in the healthcare system is lacking. More researchers are utilizing randomized, double-blinded, clinical trials to test the effects of energy therapies on different patient populations. This clinical research is critical in allowing medical researchers to develop regulatory guidelines for the safe and practical use of energy therapies.

Complementary therapies face challenges that conventional therapies with the support of Western medicine do not undergo. The method of research by which most, if not all, of conventional therapies, are evaluated for safety and effectiveness does not include parameters that are appropriate for assessing alternative therapies (Coakley & Barron, 2012). This lack of appropriate criteria excludes any alternative therapy from the treatment plan for a patient in a conventional care facility, where the patient population is always in need of more supportive care.

Background

Healing Touch

The practice of healing touch is one with significant evidence backing its efficacy in supporting one's innate ability to heal. "Healing touch aids relaxation and supports the body's natural healing process, i.e., one's ability to self-balance and self-heal" (MacIntyre, et al., 2008, p. 24). The revitalized practice was initiated by nurses in the early 1980s and is supported in the work of many renowned nursing theorists such as Dr. Jean Watson. The theoretical framework of the therapy is based on the human form being a "multi-dimensional energy system" that can be manipulated by another to increase well-being (MacIntyre et al., 2008, p. 24). Other researchers who investigated the biological correlates with energy healing used a similar conceptual framework to formally identify markers for stress reduction. This framework conceptualizes the human form as a "complex mind-body communication system" in which the autonomic, endocrine, and immune system work in synchrony, receiving signals from other systems in the form of neuropeptides such as cortisol (Wardell & Engebretson, 2008). This

framework suggests that manipulation of one of these systems can result in modulation of another.

Reiki Therapy

Reiki originated from cultural and spiritual practices in Japan in the early 1920s. Several years later, knowledge of the practice spread to the Americas and piqued the interest of a few scientists, whilst immediately being disregarded as heresy by most others. The spiritual origins of the practice may have very well impeded the adoption of the practice in the West, where any spirituality that did not include Christianity was not well received. However, Reiki is only defined as a spiritual practice because it is one that helps people connect with their innermost selves, aligning the body, mind, and spirit. The practice is not affiliated with a religion and has no creed or doctrine. Reiki is unique in that it is a treatment that not only focuses on the health of the patient but also the health of the practitioner. The guidelines of Reiki include self-care, healing, and personal development practices, all with the intention of increasing the psychological well-being of the patient and practitioner (Lipinski & Van De Velde, 2020). Table 1 provides a visualization of the many applications of Reiki therapy.

Table 1: Reiki Therapy

Uses for the healing potential of Reiki
Relieves the physical and emotional effects of stress
Reduces pain and discomfort
Decreases tension and anxiety
Improves sleeping patterns and alleviates fatigue
Prepares and supports a person for surgery, other invasive procedures, and chemotherapy or radiation treatments
Supports the recovery process from injuries, surgery, or trauma (i.e., posttraumatic stress disorder)
Minimizes or makes more tolerable the side effects of many kinds of treatment or procedures
Facilitates wound healing
Supports recovery from addictions
Supports the resolution of psychological and emotional issues
Promotes healthy pregnancy and childbirth
Supports people who are acutely or chronically ill
Supports caregivers caring for loved ones dealing with acute or chronic illness
Brings comfort to people who are terminally ill, and can help ease transition
Enhances personal spiritual development
Promotes overall health and well-being, and prevention of illness

Note. From "Reiki: Defining a Healing Practice for Nursing," by K. Lipinski and J. Van De Velde, 2020, *Nursing Clinics of North America, 55,* p. 522. Copyright 2020 by Elsevier. Reprinted with permission.

Biofield Therapy

In the 1930s, pioneer researchers at Yale began to study how energy and magnetic fields are affected by physical changes to the human body. Through this groundbreaking research, Dr. Harold Saxton Burr found that processes occurring in the body produce an electrical change and alter the magnetic fields surrounding the body. Dr. Candace Pert, who spent several decades studying molecular biology, concluded that the mind and body are more integrated than once believed and that one's thoughts have a strong impact on that person's well-being (MacIntyre et al., 2008). These researchers helped reveal the physiological effects that energy can have on the body, providing energy therapies with a foundation in science.

Further strengthening the relationship between energy manipulation and physical well-being, Dr. Marcy Purnell et al., discovered that the erythrocyte, or red blood cell, is a dielectrophoretic (DEP) electromagnetic field (EMF) driven cell which relies on constant maintenance of that field to maintain its shape and, therefore, function (2018). The red blood cell is responsible for the cycling and recycling of oxygen and carbon dioxide compounds within the blood, which makes its function critical to the survival of all other cells in the body. The red blood cell must keep its shape within the golden ratio for optimum functionality. Purnell discovered the golden ratio in this same study, where she determined the exact mathematical measure for the healthy shape of a red blood cell. Not only did she discover what this ratio is, but she also discovered which ions in the body regulate this shape (Purnell et al., 2018).

Significance

One of the most pressing issues the adult population of the United States faces today is poorly managed chronic pain. An article sponsored by the Centers for Disease Control and Prevention shows that chronic pain is one of the most common reasons adults seek medical care and has a correlation with an inability to complete daily activities, opioid dependence, and poor quality of life (Dahlhamer et al., 2018). As of 2018, chronic pain affected approximately 50 million U.S. adults, with 20 million of those reporting that the pain interfered with their work or life most days or every day (Dahlhamer et al., 2018). The purpose of this research was to review current evidence on the effects of CAM and to evaluate whether it may be a solution for the pain epidemic that the United States is facing. Furthermore, recommendations for research and practice were made based on personal conclusions. Through identifying deficits in CAM research, other researchers will be able to more adequately investigate appropriate usages of the therapy. Future research in the clinical setting is critical to determining what patient populations have the most improved outcomes when using CAM.

Summary

In review, the CAM modalities discussed in this research include healing touch/therapeutic touch, biofield regulation, and Reiki. Recent studies indicate that millions of Americans partake in CAM every year; however, CAM has not been recognized as an evidence-based practice due to the lack of research that has focused on the efficacy of the therapies (Dahlhamer et al., 2018). The main goals of CAM therapy include decreased pain and anxiety levels and an increase in feelings of safety and well-being. CAM, specifically Reiki therapy, is a unique treatment process in that it aims to

heal not only the patient but also the practitioner. The purpose of this study was to analyze the existing research and evidence pertaining to the effects of energy therapies and to identify barriers in which energy therapies face, which hinder its integration with conventional clinical practices.

CHAPTER II: METHODS

For this study, a systematic search using numerous scholarly platforms was performed including PubMed, Google Scholar, EBSCOhost, Medline, and Science Direct. The criteria used for determining applicable references was based upon the source being peer-reviewed and including research on energy therapies or their components. Emphasis was placed on randomized clinical trials for the presentation of the effects and benefits that energy therapies offer; however, sources that compiled research of energy therapies or defined critical frameworks for the understanding of holistic nursing were included as well. Specific search terms used include complementary and alternative medicine, Reiki, energy therapies, biofield therapies, effects, limitations, healing touch, therapeutic touch, and clinical trials. This study's research questions guided this search and formed the basis for the study selection criteria of this research.

Inclusion/Exclusion Criteria

When searching for academic articles from any time period related to complementary and alternative medicine, the result yielded over 250,000 articles. To determine relevant sources, the article was analyzed for empirical data and evidence-based conclusions relating to the effects, limitations, and barriers of CAM. Twenty-four articles from the original search were included. Inclusion criteria consisted of the study being peer-reviewed, with its research being executed in a clinical setting, preferably with a randomized and/or double-controlled study design. While other systematic reviews and meta-analyses alike do not meet this inclusion criteria, four review studies were included in this research due to their relevance in delivering background information on CAM. Exclusion criteria were based on the recognition of any bias or researcher negligence

within that study. Data saturation in this research was evident by repetitive synonymous conclusions in selected studies, at which time the data collection period ceased. The time period that the search was performed began in September of 2020 and ended in February of 2021.

This research was performed by systematically analyzing numerous sources to determine what commonalities exist, if any, between energy therapies and positive patient outcomes. Study selection criteria were formed by the questions listed below and included studies that focused on specific clinical outcome measures for CAM intervention. Specific research questions include:

1. What effects of CAM are shown in the clinical setting?
2. Why is CAM used so frequently and yet so conventionally inaccessible?
3. What factors are preventing the integration of CAM with conventional health care?

For the potential of energy therapies to be utilized completely and accessible to all patients, it requires integration into conventional healthcare settings. To identify specific barriers that limit energy therapies integration with traditional nursing care, further analysis of sources was performed, focusing on problems that researchers and nurses face when studying or attempting these practices. The basis for the framework of this systematic review was developed from a framework for systematic reviews published by researchers at the *Journal of the Royal Society of Medicine* (Khan et al., 2003).

Procedure

In coordination with the framework for systematic analyses by the *Journal of the Royal Society of Medicine,* five steps were included in the procedure of this study. Step

one is discussed in the first paragraph of this chapter and is the process of forming research questions. Step two, which is also discussed in this chapter, is the process of identifying research that is relevant to the systematic review. The third step in this research process is to assess the quality of selected studies in a more refined fashion. This step was completed by personally and rigorously analyzing the selected studies for perceived flaws in research design, conflicts of interest, or researcher bias. Step four of this process will be discussed in the results chapter and is the summarization of evidence from all studies included in this research. The final chapter, or the discussion chapter, will cover the fifth step in this research process and is composed of the interpretation of the research findings, as well as forming recommendations based on these findings. By upholding this five-step framework, the integrity of the systematic review is maintained.

Summary

This research was performed using a step-by-step framework provided by researchers at the *Journal of the Royal Society of Medicine*. An initial search query resulted in over 250,000 articles and was narrowed down to 24 studies using the inclusion criteria listed above. Additional studies were included that did not meet that inclusion criteria due to defining critical frameworks, philosophical and biological, that aid in the understanding of CAM.

CHAPTER III: RESULTS

Commonalities in inpatient experiences of CAM were apparent when analyzing existing literature and clinical studies. Focusing on findings based primarily from treatment in a conventional clinical setting, evidence suggests that CAM has benefits for patients suffering from acute and chronic illnesses alike. Nurses are responsible for maintaining their patient's comfort level to the highest extent possible at all times, and CAM has the potential to be a powerful resource to assist nurses in maximizing that comfort for patients.

What effects of CAM are shown in the clinical setting?

Analysis of existing literature on energy therapies revealed common effects found among several patient populations and clinical settings. Energy therapies have largely unutilized potential to, upon integration with conventional medicine, increase a patient's sense of comfort, well-being, and health-related quality of life (HQoL), to increase a patient's rate of healing from various injuries, and consequentially, decrease a patient's hospital length-of-stay, thereby decreasing any unnecessary strain that a patient could put on their healthcare system (Alarcão & Fonseca, 2016; Anderson et al., 2015; Demir Doğan, 2018; Krisberg, 2012; Lipinski & Van De Velde, 2020; MacIntyre et al., 2008; McManus, 2017; Piatkowski et al., 2011; Rao et al., 2016; Sagkal Midilli, 2016; Siegel et al., 2016; Thrane & Cohen, 2014; Wardell & Engebretson, 2008). Research from 2002 indicated that up to 42% of the U.S. population has used one or more CAM therapies, which begs to question why, in 2021, is the use of CAM still so inaccessible?

Reiki Therapy

One of the most frequently studied energy therapies in the clinical setting is Reiki. A single-blinded, randomized, double-controlled study that took place in the obstetrical unit of a Turkish hospital allowed researchers to examine the potential effects that Reiki therapies have on postoperative pain and vital signs. The study consisted of 45 women who were randomly assigned to one of three groups: the control group, the Reiki group, and the sham Reiki group. The Reiki group received Reiki therapy from a trained practitioner, while the sham Reiki group received something visually similar to Reiki, but not by a trained practitioner. The patients were not aware of the group they had been assigned. Before and after the treatment, the patient's vital signs and pain intensity were evaluated, as well as the length of time following application that the patients needed other pain medication and the number of doses documented. The average measured pain intensity for the Reiki group was significantly lower than the sham Reiki and control group's measurements. Between the pain intensity measurements taken before the first treatment and after the second treatment, there was a pain reduction of 76.06%. No significant differences were noted between the groups' vital signs (Sagkal Midilli, 2016). A study that took place in a Brazilian hospital's oncology unit examined whether individualized Reiki had effects on the patient's symptoms and well-being. The Reiki therapy improved more than half of the patients' sense of well-being (Siegel et al., 2016). Another study which compiled statistical evidence regarding Reiki therapies indicated that Reiki could improve pain, anxiety, and quality of life (Thrane & Cohen, 2014).

Healing Touch

The implementation of opiate medications for pain has dramatically increased in recent years, and physicians are constantly searching for strategies to reduce the need for opioids by finding other ways to manage pain. The population of post-operative bariatric patients with a history of obstructive sleep apnea has an increased need for the limiting of opioid analgesics due to an increased risk of adverse respiratory effects of the drug. A study on the healing touch that focused on patients following bariatric surgery found that immediately following healing touch therapy, patients reported a significant decrease in pain, nausea, and anxiety. The Joint Commission identifies pain management as an indicator for quality care, and they emphasize alternatives to pharmacological therapy to increase HQoL. These results suggest that healing touch could be a powerful component of increasing patient satisfaction with bariatric post-operative care as well as more positive patient outcomes related to healing and weight-loss (Anderson et al., 2015).

In a randomized clinical trial by MacIntyre et al. (2008), the efficacy of healing touch in improving outcomes of coronary artery bypass surgery patients was studied using 237 subjects. Although the researchers found no significant decrease in the patients' need for pain medication, the set of patients that received the healing touch therapy did show a significant decrease in anxiety levels and hospital length-of-stay compared to the control group (MacIntyre et al., 2008). In a randomized control trial on the effects of healing touch in postsurgical outpatients, researchers found that healing touch was just as effective as traditional nursing care in reducing pain and was more effective than traditional nursing care at reducing anxiety (Foley et al., 2016). Additionally, the results from the Wardell and Engebretson (2008) study suggest that

touch therapy could have effects on the immune system, as evidenced by the increase in salivary IgA levels post-treatment.

Biofield Therapies

Through Dr. Purnell's (2018) research on biofield therapies, she created a Bio-Field Array device (BFA) that, when immersed in a saline solution and connected to an active direct current power supply, can emanate a DEP EMF that increases healing potential in the human body. The saline solution acts as a conductor which unites the BFA's EMF with the EMF of the patient who immerses his/her feet in that solution. Purnell's results of the BFA treatment, where patients underwent a total of six 35-minute treatment sessions, showed significance by fully restoring the Golden Ratio of the erythrocyte, therefore, restoring its function. This cellular restoration is demonstrated on live blood analyses taken before and after treatment (Purnell et al., 2018). If other Biofield therapies produce similar effects in restoring the red blood cell, there is potential for energy therapies to increase the physical and mental well-being of patients with a safe, low-cost, and non-invasive procedure. For patients in a critical condition, the healing support that energy therapies provide when conventional treatment has been exhausted could be the difference between life and death.

Although many researchers like Purnell et al. (2018) and MacIntyre et al. (2008) undergo short-term efficacy studies on energy therapies, few studies exist which analyze the effects of energy therapies for an extended period of time. In 2011, German researchers identified this deficit of long-term research and studied the effects that bio-electromagnetic energy regulation therapy (a biofield therapy) had on multiple sclerosis (MS) patients suffering from severe fatigue. For a period of almost four years, these

researchers held trials to determine what effect, if any, that long-term energy therapy had on these 37 MS patients. Using the Modified Fatigue Impact Scale and the Fatigue Severity Scale, Piatkowski et al. (2011), discovered significant reductions in fatigue levels of the patients, suggesting that long-term energy regulation therapy may be therapeutic for patients with MS who suffer from severe fatigue.

Why is CAM used so frequently and yet so conventionally inaccessible?

Undereducation

One of the most obstructive barriers that energy therapies in nursing practice face is the fact that practitioners of conventional medicine are not educated, formally or otherwise, on energy therapies and their appropriate usage. In third-world countries, this deficit can easily be attributed to a lack of up-to-date educational resources, as the majority of the efficacy research on energy therapies has been published fairly recently. However, that excuse is not appropriate in explaining first-world practitioners' ignorance of holistic care modalities, where academic journals are readily available online. Patients seek out information and resources on CAM but often do not receive adequate guidance because their clinicians are uneducated regarding CAM (Spencer et al., 2016; Winslow & Shapiro, 2002).

Holistic nursing practices are currently limited to wealthy countries with well-established healthcare infrastructures. The complex conceptual paradigms that represent holistic nursing are not within the spectrum of education that nurses have been provided within low-income countries. However, William Rosa, RN, MSN, spent time in a Rwandan hospital learning how to implement holistic nursing practices in an unsophisticated healthcare setting with minimal resources. Although these nurses may

not have access to therapeutic touch workshops or scholarly journals like American nurses do, Rosa found that successful demonstration of therapeutic touch on a patient resulted in an immediate shift of the nurses' attitudes related to holistic care. The nurses in this Rwandan hospital immediately recognized the significance of the healing and calming effects that therapeutic touch had on the patient. The demonstration resulted in a dramatic increase in the nurses' willingness to learn these new practices, as well as giving them a physical example of energy therapy outcomes (Rosa, 2017).

In a survey of 276 physicians in Denver, Colorado, researchers found that 84% of the physicians reported feeling like they need more education on CAM to be able to appropriately address their patients' concerns, and few of those physicians reported being comfortable discussing CAM with their patients (Winslow & Shapiro, 2002). The educational deficit that physicians face related to CAM made them more likely to give negative or neutral responses to patient inquiries, which could steer a patient away from a potentially effective treatment. However, the most frequently reported reason for physician interest in CAM education was the desire to discourage patients from participating in an unsafe or ineffective treatment.

In the same study, researchers found that physician self-use of CAM was most strongly associated with physician recommendation of CAM. However, 60.6% of physicians who stated that they believed CAM modalities in general "probably or definitely work" also reported not recommending these treatments to their patients. When discussing energy therapies specifically, only 17.5% of physicians reported not recommending these treatments to patients. This study showed that physicians were not comfortable discussing CAM with patients unless the patient made a specific query. This

discomfort was intensified by the physician's lack of education on CAM, shown by 84% of the surveyed physicians expressing that they need more education to confidently address a patient's concerns (Winslow & Shapiro, 2002).

A 2016 study of nurse practitioners shows a representation of the relationship between education on CAM and recommendation of CAM to patients:

> Sohn and Loveland Cook evaluated the level of knowledge about CAM among nurse practitioners working in a variety of health care settings and found that 83% had recommended CAM to patients, yet only 24% had received education on CAM, and 60% said that they relied on personal experience for knowledge about CAM. Hayes and Alexander reported similar findings among nurse practitioners, with 65% recommending CAM despite low self-reported knowledge about CAM. In addition, 70% said that they "rarely" or "sometimes" asked patients about CAM use. As with physicians, nurses relied on personal experience rather than evidence to guide their recommendations and referrals (Spencer et al., 2016, p. 1552).

Because conventional physicians and nurses do not often receive any formal education regarding CAM modalities, they are not equipped with all of the tools available to them to help their patients. Conventional practitioners, especially in a hospital setting, are tasked with the care of the most critical patients, who undergo the most stressful and intensive procedures. Surveys have indicated that patients most often sought out CAM in conjunction with conventional medicine to treat the same problem (Winslow & Shapiro, 2002). Until continuing education plans include CAM, the patients that attempt to treat an illness with CAM and conventional medicine will be met by a healthcare system that is

not prepared to care for them. However, the conventional healthcare system often does not accept CAM therapies into their facilities until the treatments are nationally recognized as evidence-based practices.

Qualifying as Evidence-Based Practice

The main barrier of integrating CAM into conventional medicine is the gap in research related to the evaluation of CAM for safety and effectiveness in a format that is acceptable to the medical and scientific community (Coakley & Barron, 2012; Fonnebo et al., 2007). CAM therapies may lack the scientific evidence needed to demonstrate the efficacy required for integration into Western medicine, but the Western medical-scientific ideal does not consider the philosophical basis and multidimensional nature of CAM. To fully assess the use of CAM interventions, what constitutes scientific evidence must be expanded (Coakley & Barron, 2012).

Frequently, researchers noted that more research needs to be done in the clinical setting to determine the efficacy of energy-based therapies so that they may be integrated with evidence-based conventional practices (Coakley & Barron, 2012; Zollman & Vickers, 1999). Most CAM research to date has been conducted using principles developed by clinical pharmacologists to document the effects of a drug before it is released to the public. These research principles allow governmental regulatory offices to "gatekeep" what treatments will be allowed to go public. Also, health insurance companies only reimburse facilities for treatments that meet the designated criteria of these regulatory offices, putting a financial barrier in place for patients relying on insurance coverage to pay for their care. However, some insurance companies have

begun to reimburse practitioners for CAM therapies, most requiring that conventionally trained physicians refer the patient for CAM (Winslow & Shapiro, 2002).

A five-phase model was introduced that was meant to address the disparity between the results of randomized control trials showing minimal benefit from CAM interventions and their widespread use. This model suggests an examination of 1) context, paradigms, philosophical understanding, and utilization; 2) safety status; 3) comparative effectiveness; 4) component efficacy; and 5) biological mechanisms (Fonnebo et al., 2007). With consideration of different researching models such as the one previously mentioned, CAM could be more comprehensively examined for its appropriate usage in the clinical setting. The clinical limitations of CAM are unknown because there have not been enough clinical trials that study a diverse group of patients.

What factors are preventing the integration of CAM with conventional health care?

Limited Resources and Burnout

The most glaring limitation of the integration of CAM into conventional health care is the lack of time and resources available to practitioners. William Rosa, MS, RN, noted that the gap between nursing theory and practice is widening, as expectations for nursing care exceed the nurses' available clinical resources (2017). Those clinical resources include the mental and physical capacity of the nurse, and burnout among nurses is rendering those resources unavailable to the patients and staff that need them. Because of heavy workload burdening nurses, integration of any new, additional treatment practices to their already hectic schedules would be unwise. Therefore, alternative and complementary treatment practices cannot be integrated with

conventional medicine until the strain of overwork is lifted from the healthcare team responsible for those treatments.

Burnout can be defined as the depletion of one's emotional resources and energy, and it manifests as a lack of compassion and insensitivity towards one's patients and peers. Feelings of reduced competence can also be present in nurses suffering from burnout, potentially due to depersonalization (Khamisa et al., 2013). Nurses experience more burnout than any other healthcare professional. Burnout has negative implications on the health and well-being of the nurse, as well as a correlation to mental illness. Burnout has become increasingly relevant in recent times, as the COVID-19 pandemic rages on. Recent challenges in health care contribute to increasing burnout levels among nurses because of the amount of emotionally provoking tasks nurses are assigned and a subsequent lack of support from peers. In a 2013 study, the increased patient load was identified as a marker for higher levels of burnout, with nurses experiencing dissatisfaction following an increase of just one patient per nurse (Khamisa et al.). Although the recent COVID-19 pandemic has exacerbated an already unsatisfactory scenario for practicing nurses, burnout is unfortunately not just a recent phenomenon.

Nurses have suffered from the effects of overwork since 1874, if not earlier. In an article titled "Overworked Nurses" within the second volume of the British Medical Journal (1874), a woman in Harrow advertised a temporary resting home for nurses who were experiencing symptoms of overwork, or "whose health has broken down" (p. 308). This advertisement from over a century ago speaks to the burden many nurses carry today of being overworked, which has been found to increase infection rates in hospitals (Krisberg, 2018). Not only are overworked nurses a risk to themselves and their patients,

but they are also being forced to deliver less-than-optimal care due to time restraints and increased patient load. If the nurses do not have time to deliver optimal care and, therefore, increase the patient's rate of healing, the patient's length-of-stay will increase, placing further strain on the nurses who manage their care.

The strain and overwork that too many practitioners experience across the United States, although damaging to the practitioner, is dangerous to their patients. A significant amount of evidence suggests that patients with varying diagnoses stand to gain great benefit from CAM when used in conjunction with conventional medicine. However, much work is needed before CAM can be utilized to its fullest potential.

Summary

Studies suggest that energy therapies offer numerous benefits to patients and practitioners related to increasing one's comfort level and rate of healing. Specifically, Reiki therapy has implications in pain management, as one study did show significantly decreased (76.06%) pain levels in treated patients. Reiki, as well as healing touch, show complementary effects at reducing pain and increased HQoL. The significance of these effects is evidenced by the Joint Commission's emphasis on developing non-pharmacological therapies for pain, as narcotic abuse in the United States continues to rise. As evidenced by Purnell's blood cell analysis following treatment, biofield augmentation therapies have the potential to treat physiological dysfunction at the cellular level. However, none of these therapies can be implemented into the U.S. healthcare system until the levels of burnout among practitioners is addressed. Healthcare practitioners are delivering less-than-optimal care due to scarce resources, and research

suggests that CAM may offer relief to both patients and practitioners who suffer from extensive stress.

CHAPTER IV: DISCUSSION

Managing patient care has become increasingly difficult for nurses as the nurse-to-patient ratio in facilities increases alongside persistent staff shortages. Pain management, a key component of HQoL, has become a popular topic, as more patients become dependent on narcotics. Research suggests that Reiki and healing touch have properties that relieve pain and discomfort, without any risk of addiction or dependency.

Implications

Because Reiki targets the practitioner as much as the patient, nurses suffering from emotional exhaustion associated with burnout may find relief in these therapies as well. Biofield therapies have resulted in altering the shape of the red blood cell, so that it may function to the highest extent. The implications that biofield therapies can have on one's health are significant. Cellular dysfunction and oxidation lead to chronic and acute disorders resulting from minute cell death, over an extended period of time. Biofield therapies have the potential to not only heal patients but also to prevent patients from ever becoming ill. CAM therapies not being readily available to patients and in conventional facilities limits, patients' access to holistic health care. In a capitalistic healthcare system, one would expect more conversation about a treatment that millions of Americans partake in each year. This silence begs the question, is CAM just not as profitable as other conventional treatments?

Limitations

The limitations of this study stem from the methodology in which it was performed. Although a system of steps was used to systematically review the available literature on CAM, studies pertinent to this research could have been overlooked.

Because it cannot be determined whether all available research was included in this study, the results of this research may not be comprehensive. Furthermore, determining the quality of studies being considered for inclusion was based upon the researcher's description of methods used to complete this study. Most included studies met the "gold standard" for assessing CAM (randomized, controlled trials), but a few studies with subjective data were included in this research for purposes of better understanding the background of CAM. Although researcher conclusions and recommendations are a critical part of the research process, these subjective conclusions can introduce bias into the results of the study.

Recommendations for Nursing Education

Capitalism aside, more overt barriers preventing CAM from becoming conventionally accessible exists. Undereducation of healthcare practitioners in the realm of holistic care is one of the most profound reasons why so many people are still uninformed about CAM. Nurses are superficially taught to provide holistic care, by being culturally appropriate with their patients, but they are not taught the full extent of the mind/body/spirit system in the human body. Evidence suggests a working relationship among these systems, with manipulation of one system leading to alterations in another. Nurses should be offered continuing education to have the opportunity to thoroughly understanding how these systems can be manipulated so that they may more comprehensively assist their patients in healing.

Recommendations for Nursing Practice

The nursing practice could be advanced by integrating CAM into everyday patient care. Nurses need support, physical and emotional, now more than ever. CAM modalities

like Reiki can provide comfort to nurses while they are undertaking patient care, as Reiki has effects on the patient and practitioner. However, that benefit would only apply if nurses were trained to practice Reiki. Although, hiring Reiki practitioners into conventional facilities with the intent of increasing patient HQoL would decrease the amount of stress on the nurses, as their patients would be more peaceful and comfortable. Providing patients with holistic support and therefore decreasing strain on nurses could lead to decreased levels of nurse burnout. More research is necessary to determine the effects of CAM on nurse burnout levels.

Recommendations for Nursing Policy

The burden of nurse burnout primarily lies with the facility and leadership that establishes policies and work environment for these providers. If nurses are not provided time and resources for development and self-care, then nurses will have difficulty upholding provision five of the American Nurses Association's *Code of Ethics* (2015), which states that the nurse has a duty to preserve his or her health in an effort to promote health and safety for all. If CAM became accessible in conventional healthcare facilities, where nurses are experiencing high levels of burnout, then those nurses would be able to access a safe and responsible method of maintaining one's health with ease. Potentially, these nurses could access these resources during their shifts, providing them with time to balance themselves, so that they return to their patients with full competence. However, providing nurses with time to balance themselves within their lengthy shifts is not customary in the current nursing policy. From personal experience, some nurses do not have sufficient time for toileting, hydration, or nourishment. How can nurses be expected

to be fully present and to competently care for patients if they are not provided the opportunity to care for themselves?

Recommendations for Nursing Research

Currently, the way that treatments are researched and evaluated for safety and efficacy before being offered by physicians, is not compatible with the evaluation of CAM. Evidence-based practice is critically important to safely treat patients, but when CAM comes into play is unclear. Some randomized control trials have shown minimal effects of CAM on patients, but those results do not explain their widespread usage. New styles of research must be developed to fully understand the effects of CAM on the mind/body/system. The biological correlates of CAM have been defined, but research has not been done to explain exactly how CAM manipulates these correlates to affect the body. Further research is needed to demonstrate physiological alterations as a result of CAM.

Conclusion

In conclusion, scientific evidence suggests that CAM can positively impact patients and practitioners, but barriers in health care are preventing CAM from being fully accessible to all patients. With rising levels of burnout, investing in a safe and effective solution for the emotional and physical exhaustion our healthcare practitioners face is critical. Nursing education does not sufficiently include holistic modalities and care techniques, nor are nursing students educated on how to properly address the burnout they will likely face in their careers. This education deficit, paired with a lack of policy protecting nurses and patients from the effects of burnout, has led to a critical need for intervention to prevent further negative outcomes for patients and their caretakers.

Research on CAM in the clinical setting is incredibly limited and should be expanded before practitioners can integrate CAM into their plan of care. A quote from a physician in response to a survey on CAM was this: “Let’s study these things and find out if they work; if so, we can recommend them wholeheartedly and they will no longer be ‘complementary or alternative’ but conventional” (Winslow & Shapiro, 2002, p. 1181).

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