ENERGY THERAPIES IN ONCOLOGY NURSING

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OBJECTIVES: To review the published research related to the interventions of Reiki, Therapeutic Touch, and Healing Touch representing energy therapies in relation to oncology nursing.

Data Sources: Peer-reviewed literature.

CONCLUSION: There is growing evidence that energy therapies have a positive effect on symptoms associated with cancer. While there is need for further research, it is clear that an appreciation for the value of research methods beyond the randomized control trial is important.

<u>IMPLICATIONS FOR NURSING PRACTICE:</u> Energy therapies offer additional strategies for oncology nurses providing integrated nursing care to alleviate suffering and symptom distress of patients with cancer.

KEY WORDS: Energy therapies, Reiki, Healing Touch, Therapeutic Touch

NERGY therapies, or biofield therapies, are considered a subcategory of one of the five groups of complementary/alternative or integrative therapies described by the National Center for Complementary and Alternative Medicine (NCCAM). Included in this subcategory are Healing Touch, Qigong, Reiki, Therapeutic Touch and polarity therapy. There

are those who believe that the integration of complementary alternative medicine (CAM) in the United States (US) is beginning to shift from the marginal fringes to the mainstream of care. 1,2 Americans spend between \$36 and \$47 billion dollars per year on CAM therapies and 36% of US adults currently use CAM.^{3,4} In 2007, Fonnebo et al⁵ and Eisenberg et al⁶ suggested that the annual expenditure of 30 billion dollars on CAMrelated interventions in the US was greater than the out-of-pocket expenses for conventional primary care. Thus, Americans are turning to CAM interventions as treatments for many illnesses and are willing to pay, collectively, significant sums of their own money to access these therapies. Yet, CAM therapies lack the scientific evidence needed to demonstrate efficacy required by most Western medical interventions. Many authors have called for more rigorous standard research to develop the evidence for these interventions. 4-9 While randomized control trials (RCTs) of the interventions, have a significant place in the development of the science related

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to CAM interventions, taking a broader view of demonstrating the effectiveness of CAM interventions is essential. The field is still young and it is essential to include all kinds of studies to provide a fair and balanced perspective of the research in this area. RCT may be the gold standard for pharmaceutical trials, but there is much controversy regarding it being such a standard for behavioral trials. The Western medical-scientific ideal does not take into account the wider contexts, the philosophical bases, and multidimensional nature of CAM interventions. Rather than critiquing CAM methods and the research supporting them as lacking and non-scientific, what constitutes scientific evidence must be expanded.

The notion of efficacy research, that is, research that focuses on examining a specific intervention on a specific health outcome, when controlling for all other variables, is based on philosophy and ideals that are inherently too reductionistic to capture the full meaning and impact of CAM interventions.4 Scientific positivism has contributed greatly to improving medical education and medical care in the US, but it has also led to the undervaluing of interventions that were not associated with standard surgical and pharmacologic therapies. Sagar⁷ suggested the importance of considering, more broadly, the effectiveness of the intervention in the real lives of patients, in complex multidimensional ways that incorporate the interactions of many variables. Understanding the full impact of CAM interventions on the patients who use them requires research approaches that consider the context and potential synergies of many variables. It is critical to continue to utilize RCTs in developing the scientific base of CAM interventions, and it is also critical to consider methods more expansively that have the potential to clarify the meaning and value of CAM interventions. Such research could explain the gap between the traditional scientific critique of CAM methods and the reality that 36% of Americans are currently spending more than 30 billion dollars annually on such interventions.

Fonnebo et al⁵ offered a five-phase model for assessing CAM interventions to address the lack of congruence between the results of RCTs showing questionable benefit for CAM interventions and their widespread use. The model consists of consideration of: 1) context, paradigms, philosophical understanding, and utilization; 2) safety status; 3) comparative effectiveness; 4) component efficacy; and 5) biological mechanisms.^{5, p.2}

The purpose of this article is to review the interventions of Reiki, Therapeutic Touch (TT), and Healing Touch (HT) representing energy therapies in relation to oncology nursing. Studies that focused on the use of Reiki, TT, and HT with cancer patients will be presented. Whereas studies with cancer patients, specifically, and the use of Reiki, TT, and HT are limited, there is considerable research on the effectiveness of these modalities to relieve symptoms associated with the cancer experience. Research addressing interventions for symptoms that are commonly experienced by cancer patients will be presented.

Reiki

Reiki therapy has a long history outside of the nursing profession. The word "Reiki" is composed of two Japanese words - Rei, which means God's Wisdom or the Higher Power, and Ki, which is life force energy. 12 Thus, Reiki is "spiritually guided life force energy." Reiki is believed to be an ancient healing practice that originated thousands of years ago in the Tibetan Sutras. The practice was lost until the 1800s when Dr Mikao Usui, a Japanese monk, rediscovered it and began practicing and teaching Reiki.8 Dr Usui recommended that individuals practice certain simple ethical ideals to promote peace and harmony, which are nearly universal across all cultures.8 Reiki was brought to the West in 1938 by Hawayo Takata and is now practiced worldwide. 4 Reiki is a simple process of laying-on of hands to channel energy to a recipient. Historically, individuals outside of mainstream health care practiced Reiki and there is limited research on this therapy (see Table 1). However, today there are many clinicians who offer Reiki to their patients.

The 2007 National Health Interview survey compiled by Barnes et al⁹ reported that 1.2 million adults and 161,000 children in the US had received one or more sessions of energy healing such as Reiki during the previous year, and 15% of American hospitals offer Reiki as a service of care. However, there remains little research explaining how Reiki works and the use of Reiki therapy in patient care. Subsequently, Baldwin et al¹⁰ developed a Touchstone Process to offer a clear and scholarly way to understand the current state of Reiki research and provide recommendations on future investigations on Reiki effectiveness. The Touchstone **Process**

TABLE 1. Reiki Touch						
Study	Population & Setting	Energy Therapy	Outcomes			
Wardell and Engebretson ²⁰	Healthy subjects Research lab	Reiki Touch	Changes in salivary cortisol, salivary IgA, BP, GSR, muscle tension, skin temperature, state anxiety reduced			
Wirth et al ¹²	Surgical patients	Reiki or Lashan therapy	Postoperative pain reduced			
Crawford et al ¹³	Elderly patients	Reiki	Cognition skills in elderly patients improved			
Vitale and O'Connor ¹⁴	Women having hysterectomies	Reiki	Improved preoperative relaxation and reduced postoperative pair			
Dressin and Singg ¹⁶	Chronically ill people	Reiki Touch	Reduction in pain, depression, and anxiety			
Shore ¹⁷		Hands-on Reiki or distance Reiki	Significant reduction of mild depression and stress			
Vitale ¹⁸	11 Nurses	Reiki	Self-care intervention			
Baldwin et al ¹⁹	Rats	Reiki	Physiological effects of stress			
Ring ²¹	Individuals	Reiki	Changes in pattern manifestations			
Olson et al ²²	Patients 9 men with advanced cancer	Reiki	Decrease of 1.2 points of the VAS for pain, improved quality of life			
Bowen et al ²³	University students	Reiki	Decrease in anxiety/depression			

encompassed a team of research experts who conducted a comprehensive and ongoing critique of all published peer-reviewed Reiki research using a rigorous team approach. These experts identified 26 peer-reviewed research articles on Reiki (7 qualitative and 19 quantitative). According to the primary evaluation criteria, about half of the qualitative studies were categorized as weak and the rest were considered to be very good to excellent. There were 12 of the 21 articles identified very good or excellent, and the results reported in these articles were positive, with one study that showed no effect of Reiki in reducing pain from fibromyalgia. 10 The Touchstone group considered this to be a very well-designed study, but it was not powered to detect subtle changes. 10 In another study, Shiflett et al¹¹ suggested there was no effect of Reiki in patients participating in post stroke rehabilitation and recovery. However, it was a small sample in this study. There were four studies whose authors reported mixed results. 12-15 Wirth et al¹² demonstrated significant postoperative pain reduction after tooth extraction in patients who received both Reiki and Lashan therapy. Crawford et al¹³ demonstrated that Reiki significantly improved cognitive skills in elderly patients with Alzheimer disease or mild cognitive

impairment. A study conducted by Vitale and O'Connor¹⁴ demonstrated that Reiki significantly improved preoperative relaxation and reduced postoperative pain in women having hysterectomies. Witte and Dundes¹⁵ demonstrated that physical stress, measured by blood pressure and heart rate, decreased significantly after 20 minutes of Reiki; while mental stress was not reduced by other therapies.

Four studies demonstrated definite evidence supporting the use of Reiki. 16-19. Dressin and Singg¹⁶ reported a significant reduction of pain, depression, and anxiety in chronically ill people who received Reiki treatments compared with sham Reiki. Shore¹⁷ reported that subjects who received hands-on Reiki or distance Reiki had significant reduction of mild depression and stress. Vitale¹⁸ found that Reiki was effective as a self-care intervention based on interviews with 11 nurses trained in Reiki. Baldwin et al¹⁹ reported that Reiki significantly reduced physiological effects of stress in rats compared with sham Reiki. Overall, investigators in these studies demonstrated strong evidence in support of Reiki as a healing modality.

Wardell and Engebretson²⁰ examined the effects of Reiki on biological markers related to

stress-reduction response. Their results showed differences in cortisol, blood pressure, and skin temperature when comparing before and after a Reiki treatment. Findings also reported that anxiety was significantly reduced (t(22) =2.45, P=.02) and salivary IgA levels rose significantly (t (191) =2.33, P=.03). The drop in blood pressure was significant (SBP), (F (2, 44) =6.60, P<.01). 20

A qualitative research study conducted by Ring²¹ described the changes in pattern manifestations that individuals experience associated with receiving Reiki and the theoretical understanding of these changes. She noted that "while there has been increasing interest in complementary and alternative healing modalities, there was a significant gap in the literature regarding nursing studies involving Reiki that were grounded in nursing science."²¹, p.256-Additionally, she noted that not enough qualitative studies had been conducted to understand the various experiences associated with receiving Reiki.

A pilot study by Vitale and O'Connor¹⁴ compared reports of pain and level of state anxiety in women after abdominal hysterectomy. The control group received traditional nursing care, and the experimental group received traditional nursing care plus three 30-minute sessions of Reiki. Patients in the experimental group received Reiki treatments, preoperatively, at 24, 48, and 72 hours. Reports of pain differed at 24 hours after surgery but not at 48 or 72 hours. The experimental group reported less pain and requested fewer analgesics. However, a secondary finding was that the length of surgery was longer for the control group, even though all patients received the same anesthesia protocol. These researchers suggest that perhaps the Reiki treatments given before surgery had an effect on the length of surgery because of the relaxation effects. Reported anxiety levels were less in the experimental group at discharge (t=3.17; P=.005).

An integrative review of Reiki touch therapy research by Vitale¹⁸ included quantitative and qualitative methodology. She found that there were treatment protocol inconsistencies among the clinical trials; however, she did report the significant results with the variations among the Reiki hand positions and treatment protocols. There is not a universal protocol for Reiki hand positions because of the varying methods of teaching Reiki and the individualized interaction between the practitioner and the recipient.

Olson et al 22 attempted to determine if Reiki plus standard opioid pain medications resulted in better pain management for patients with advanced cancer. These researchers conducted a control trial with one group of patients receiving Reiki and opioid medication and the control group receiving opioid medication and rest. The group that received Reiki plus the opioid reported a mean decrease of 1.2 points on the visual analogue scale compared with a mean decrease of 0.3 in the opioid plus rest group (P = .035). No significant difference was found in the use of pain medication between the groups.

A study conducted by Bowden et al²³ examined the impact of Reiki on anxiety/depression in university students. Students with reported high levels of depression or anxiety or low levels of depression and anxiety were randomly assigned to a Reiki group or non-Reiki control group. Those participants who were assigned to the Reiki group experienced six 30-minute Reiki sessions over a period of 2 to 8 weeks. The intervention was assessed pre and post intervention and at a 5-week follow-up by self-report measures of mood, illness symptoms, and sleep. The benefits of Reiki appeared to be specific to those participants with high negative mood and the main benefit was apparent on the stress subscale.²³

HEALING TOUCH

Healing Touch (HT) is a biofield or energy-based therapy that is included in the designation by NCCAM.⁵ Mentgen²⁴ noted that HT began as a nursing continuing education program in the early 1980s, and the principle of this modality is that the body is a complex energy system that can be affected by another to promote well-being. HT includes the use of intention and the placement of hands in specific sequences above or on the body to assess and determine areas of energy imbalance, which are generally experienced as temperature, texture, or vibration changes.²⁴ The practitioner unblocks energy through the body by HT, thus promoting physical healing and emotional, mental, and spiritual balance.²⁴ The use of HT has increased and this modality is commonly used in pain clinics, private office, hospitals, and operating rooms. There is a growing body of research being performed on HT as practitioners strive to find out how energy therapies work (see Table 2).

		TABLE 2. Healing Touch	
Study	Population and Setting	Energy Therapy	Outcomes
Maville et al ²⁵	Healthy adults	HT	Decreased state anxiety
Post-White et al ³⁴	Cancer patients	HT and massage	Enhanced relaxation and mood. Diminished pain and fatigue
Weze et al ³⁶	35 Patients with cancer	Gentle touch	Improved psychological and physical functioning and enhanced quality of life
Cook et al ³⁸	Women receiving radiation treatment for cancer	HT and massage	Quality-of-life measures
Wilkinson et al ³⁹	22 patients with cancer	HT	Increase in immunoglobulin, decreased stress, and overall health and pain relief

A study conducted by Maville et al 25 examined the effect of HT on stress perception and biological correlates and found that ratings of state anxiety decreased significantly from pretreatment to post treatment (t[29] = 7.85; P = .001). The average state anxiety level decreased from 40.2 to 29.0. Additionally, ratings of trait anxiety decreased (t [29] = 3.15; P = .004). Qualitative comments of participants were recorded and 63% of participants reported words like "relaxed" or "relaxing"; others reported that they felt" safe" or "energized." Other words to describe the HT treatment were "comforted" or "nice." 25 , 25

Wardell and Weymouth²⁶ conducted a review to evaluate findings of studies of HT. They identified 30 studies using HT; however, despite many positive results of HT, none of the findings were conclusive. The studies were either poorly designed, poorly conducted, or poorly reported, and the authors recommended that guidelines for research and reporting are important.²⁶

THERAPEUTIC TOUCH

TT is a contemporary interpretation of ancient healing practices based on Martha Rogers' theory of the Science of Unitary Beings²⁷ and developed by Delores Kreiger.²⁸ TT involves consciously directing a process of energy exchange whereby nurses uses their hands to facilitate healing and relaxation. The underlying assumption of TT is that human beings are systems of energy and that the energy field extends a few inches beyond the skin's surface. When ill or stressed, the usual flow of energy is interrupted and can become congested.

There are three distinct phases to the intervention. The first is the centering phase. The nurse quiets self, becoming clear about the intention to be present and helpful to their patients with TT. The second phase is the assessment phase. The nurse uses slow, symmetrical, gentle, sweeping movement of her hands across the space a few inches beyond the skin surface, beginning at the patient's head and proceeding to the patient's feet to assess for any signs of energy dissymmetry or unusual sensations such as warmth or tingling. The third phase is the "unruffling" phase, where the nurse uses slow, gentle, symmetric movements of her hands over the energy field of the patient with the goal of smoothing out or relieving energy congestion over the patient's body. The entire intervention takes between 10 and 20 minutes. Following the intervention, the nurse evaluates the patient's response to TT.

Oncology-Specific TT Research

There is growing evidence that TT is helpful, generally, for pain and anxiety. Oncology nurses have applied those research findings as they develop TT practice and research protocols. ²⁹ Classic studies related to the effects of TT in relation to managing symptoms that are often associated with the suffering of cancer patients will be considered, and recommendations for future research will be outlined (see Table 3).

Samarel et al³⁰ conducted an exploratory study to determine the feasibility of a large-scale experimental study to compare the effects of dialogue and TT with quiet time on the pre- and postoperative anxiety and mood and postoperative pain of women undergoing surgery for breast cancer. Thirty-one women participated in the study (14)

Therapeutic Touch						
Study	Population and Setting	Energy Therapy	Outcomes			
Kell et al ³¹	Women with breast cancer	TT	Greater relaxation, sense of security, comfort, and awareness			
Barron et al ⁴⁴	Cancer patients	TT	Improved pain and quality of life for patients. Greate connection to patients for the nurses			
Samarel et al ³⁰	Women undergoing surgery for breast cancer	TT	Lower preoperative anxiety			
Giasson and Bouchard ³⁵	Palliative care patients	TT	Enhanced well-being			
Lafraniere et al ³⁶	Healthy volunteers	TT	Enhanced mood and vigor, reduced tension and confusion			
Aghabati et al ⁴³	Cancer patients undergoing chemotherapy	TT	Lower scores on pain and fatigue			

in the experimental group and 17 in the control group). Participants received the nursing interventions in their homes 7 days prior to surgery and 24 hours after discharge. The experimental intervention consisted of 10 minutes of TT plus 20 minutes of dialogue. Control group participants had 10 minutes of quiet time and then 20 minutes of dialogue. The interventions were standardized and the specially trained nurse-interventionists were blinded to the design of the study. Women who received TT preoperatively reported lower preoperative anxiety than controls, but no differences were found on other preoperative and postoperative measures of anxiety, mood, or pain.

Kelly et al³¹ compared the perceptions of women with breast cancer with the experimental intervention of TT plus dialogue with the control intervention of quiet time plus dialogue. Eighteen women with early stage breast cancer participated in the study to amplify findings of a larger study. The women who received both interventions reported greater relaxation, sense of security, comfort, and awareness. The researchers discussed the value of the therapeutic presence of the nurse for both groups and further suggested that the preparation of the nurse for TT, that is, centering or assuming a meditative state and adopting an intention to be helpful with the patient, could become standard preparation for quiet time as well.

A systematic review of research on the effectiveness of TT, HT, and Reiki for decreasing pain and anxiety in cancer patients was conducted by Jackson et al.³² The researchers linked the energy therapies of TT, HT, and Reiki in their review

and conducted an in-depth review of sources using keywords such as Healing Therapy and Touch Therapy, and paired the key words with other terms such as cancer, pain, and anxiety. Seven levels of evidence as outlined by Melnyk and Fine-Overholt³³ were used to categorize and evaluate the studies. These authors identified level I studies, systematic reviews of RCTs, as the best sources of evidence, while they identified level VII studies, the opinions of experts, as the least rigorous evidence. There were three level II studies (one or more randomized control trials). Post-White et al³⁴ examined the effects of HT and therapeutic massage on cancer patients and found patients who received HT reported enhanced relaxation and mood and diminished pain and fatigue. Giasson and Bouchard³⁵ examined the effects of TT on well-being of palliative care patients and found that TT enhanced wellbeing. Lafreniere et al³⁶ evaluated the effect of TT on hormonal and neurotransmitter indicators of mood and anxiety on healthy volunteers and found enhanced mood and vigor, reduced tension and confusion. One level III study (controlled trials without randomization)³⁰ focused on breast cancer and TT, quiet time, and music, and found that the combination of TT, quite time, and imagery decreased anxiety. Authors of four studies focused on cancer and HT at level IV (case control and cohort) studies. Weze et al³⁷ examined the use of gentle touch on psychological and physical functioning and quality of life on 35 patients with cancer. They reported improved psychological and physical functioning and enhanced quality of life. Cook et al³⁸ investigated the effect

of HT and massage therapy and found that HT had the best outcomes in quality-of-life measures. Wilkinson, et al³⁹ examined the effect of HT on 22 patients with cancer in relation to concentration of immunoglobulin, stress, and perceptions of health enhancement and found significant increase in immunoglobulin, decreased stress, and overall health and pain relief. Olson et al²² compared opioid management plus rest with opioid use plus Reiki in a small sample of nine men and found that patients described improved pain and quality of life as a result of Reiki. Authors of two studies examined the use of CAM therapies, generally in cancer patients: Bardia et al⁴⁰ at level I and Sparber et al⁴¹ at level VI. Finally, in a level VI study, Gotay⁴² interviewed cancer patients about why they used CAM and how they evaluated their experience. The authors³² of this review concluded that TT and other touch therapies are helpful in reducing pain and anxiety in patients with cancer. They recommend that nurses use these non-invasive therapies in their care for patients to promote comfort and quality of life. Further, they recommend that future research with energy therapies be based on the higher level indicators of evidence as these intervention studies are planned.

From an international perspective, Aghabati et al⁴³conducted a study to examine the effects of TT on the pain and fatigue of cancer patients undergoing chemotherapy in a cancer hospital in Tehran, Iran. Ninety patients experiencing pain and fatigue participated in a randomized, threegroup, experimental study of TT. The experimental group received 30 minutes of TT each day for 5 days. The placebo group received a mimic TT intervention, whereby the nurse eliminated the centering phase of the intervention and substituted the intention to be helpful while offering TT with counting backwards from 100 by serial sevens over and over for the duration of TT. The control group received usual care. Subjects who received the experimental TT intervention had statistically significant lower scores on pain and fatigue measures when compared with the placebo and usual care groups. Citing the poor overall management of cancer pain and the difficult side effects of pharmacologic management of pain, the authors emphasized an urgent need to understand nonpharmacologic interventions to promote comfort for cancer patients.

Barron et al⁴⁴ explored the experiences of nurses and patients on an inpatient oncology and

bone marrow transplant unit when the nurses had time preserved in their schedules for the offering of TT exclusively. The nurse interventionists offered the TT intervention to 34 patients over a several-month period. The nurse interventionists had 4-hour blocks of time reserved for the research intervention. Before this study, nurses on the unit had been certified in TT but were unable to offer TT to patients. In a focus group conducted by Coakley and Barron, 45 the nurses described challenges in relation to centering for the TT process when they had two or three other patients, and a lack of comfort requesting that colleagues cover their other patients during TT. With time preserved for TT exclusively, the nurses described appreciating TT as a way for offering clearly intentional comfort, caring, and presence with their patients, and found that their awareness shifted more deeply toward the personhood of the patient.

More than 30 years of research has demonstrated that TT is helpful for symptoms that are often part of the cancer patients' experience. TT has been studied as an effective intervention for reducing pain and anxiety and enhancing relaxation. A3-53 Reviews of TT research emphasize the importance of the ongoing study of TT. Specific research on symptoms that cause distress to cancer patients will be valuable to oncology nurses as they seek to promote comfort and relaxation for their patients.

Conclusion

Energy therapies are used with cancer patients for a myriad of different symptoms. Primarily, these modalities are used to help patients feel relaxed, calm, or soothed, to decrease anxiety, improve ability to fall asleep and stay asleep, decrease pain, and increase peace at the end of life. The category of therapies and individual energy therapies reviewed in this article, Reiki, TT, and HT, are modalities with growing evidence to support their value for cancer patients. Researchers have documented both qualitative and quantitative results supporting the use of these therapies. There has been a range of biobehavioral responses in the direction of relaxation, including decreased levels of stress hormones, improved blood pressure, improved heart rate, decreased cortisol levels, increased natural killer cells, and an improved sense of well-being. It is possible that the deep relaxation associated with Reiki, HT and TT treatments, documented both qualitatively and through improved bio-physical markers, allows the body's self-regulating mechanisms to recalibrate, as described by Miles. ⁵⁵ Patients who have a cancer diagnosis commonly have associated distress and anxiety and can potentially benefit in important ways from these holistic interventions. ⁵⁶ Even in the absence of evidence in the RCTs, these treatments continue to be in high demand.

The nurse's intention to be helpful and present to her or his patients, particularly as they suffer, is the essence of nursing practice and a major aspect of all energy interventions. Intentionality and presence, while difficult to assess with traditional research methods, are nonetheless of critical significance in creating a healing environment for patients. He while further research is needed to demonstrate, more specifically, the efficacy, meaning, and underlying mechanisms influenced by energy therapies, an expansive view of what serves as evidence is essential. Researchers who consider, as Fonnebo et al have suggested, that context, philosophy, safety status, comparable effectiveness, and identification of underlying mechanisms have importance, have the potential to contribute to advancing the science of energy therapies with cancer patients in meaningful and important ways.

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