REIKI—REVIEW OF A BIOFIELD THERAPY HISTORY, THEORY, PRACTICE, AND RESEARCH

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Reiki is a vibrational, or subtle energy, therapy most commonly facilitated by light touch, which is believed to balance the biofield and strengthen the body's ability to heal itself. Although systematic study of efficacy is scant thus far, Reiki is increasingly used as an adjunct to conventional medical care, both in and out of hospital settings. This article will describe the practice and review the history and theory of Reiki, giving readers a context for the growing popularity of this healing modality. Programs that incorporate Reiki into the clinical setting will be discussed, as well as important considerations in setting up such a program. Finally, the research literature to date on Reiki will be reviewed and evaluated, and directions for future Reiki research will be suggested.

Americans increasingly reach beyond conventional medicine to meet their healthcare needs, and research indicates that therapies based in energy medicine are a favorite choice.[1,2] Consistent with findings of increased use is the recognition that patients seldom discuss the use of these therapies with their physician, and that the majority of conventional medical providers are unfamiliar with the principles underlying these modalities. In this manuscript, we focus on Reiki (RAY kee), a biofield therapy facilitated most commonly by light touch,[3] attempting to evaluate and synthesize what is known about the history, theory, and practice of Reiki, as well as give an overview of the state of Reiki research. We conclude with thoughts about future directions for research and the development of programs that integrate Reiki into clinical care, raising questions and issues that must be considered in these endeavors.

The National Institutes of Health Center for Complementary and Alternative Medicine (NCCAM) has classified energy medicine therapies into 2 basic categories: biofield therapies and bioelectromagnetic-based therapies. According to the NCCAM classifications, biofield modalities are defined as those therapies intended to affect energy fields that purportedly surround and interpenetrate the human body. These therapies, which include Reiki, Qigong, and Therapeutic Touch, involve touch or placement of the hands in or through biofields, the existence of which have not yet been scientifically proven. Bioelectromagnetic-based therapies involve the use or manipulation of electromagnetic fields (EMFs), invisible lines of electrical force or currents. Although the existence of EMFs has been demonstrated, therapeutic use of these fields is unique to complementary modalities such as magnet therapy.[4]

Biofield therapies, including Reiki, are generally accepted as low-risk interventions. The widespread use of these therapies, coupled with anecdotal evidence of efficacy, indicate a need for further study of this important category of complementary and alternative medicine (CAM). Because of their foundation in subtle energies that as yet lie beyond technology's ability to consistently measure, biofield therapies present a special research challenge. An increasing number of nurses, physicians, and other healthcare providers have begun integrating biofield therapies into patient care, and a growing number of hospital-based programs offer these modalities to patients and staff. The line between what is "alternative," "complementary," or "integrative" is often blurred when it comes to biofield therapies. Despite these challenges, efforts to describe these modalities, their practice, and their use by patients, as well as development of well-designed studies of safety and efficacy, are important and underway.

TRADITIONAL MEDICAL SYSTEMS AND REIKI

Understanding Reiki requires an awareness of indigenous healing traditions that exist alongside, and pre-date, the Western biomedical model. In these systems, the ability to facilitate healing derives from knowledge and practices that are passed from master practitioner to student, who in turn becomes a master

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practitioner. Such lineages of healers are seen across cultures and share common threads; however, there are always cultural and idiosyncratic variations. The indigenous traditions of China, Tibet, Africa, Russia, Native America, and India (Ayurveda) are known in the West. In Europe, the Iceman who died 5300 years ago in the Swiss Alps and was recently discovered frozen in a glacier was noted to have parasites in his intestines. He carried a medicine pouch and was deemed to be self-medicating with local mushrooms. If this is true, the Iceman clearly had access to medical information through non-scientific means.[5]

Although some indigenous and traditional medical systems are known to have used advanced medical technologies such as brain surgery in India and Africa, these systems often emphasize the development of skills in areas overlooked in conventional medicine. For example, traditional healers use remedies from the natural environment and focus on accessing the subtle vibrational field, which is understood to be related to consciousness. Intervening in the vibrational field is deemed necessary for lasting benefit. The training of traditional healers requires they become adept in navigating subjective realms of awareness, a skill developed through meditative techniques and disciplined spiritual practice.

HISTORY

Mikao Usui (1865-1926), a lifelong practitioner of Tendai Buddhism and dedicated spiritual aspirant, formulated the roots of what has come to be called Reiki in early 20th century Japan. He trained in a monastery as a young boy, and practiced martial arts from age 12, achieving mastery in several disciplines. Perhaps because of Usui's background in Buddhism, Reiki is often referred to as an ancient Tibetan technique, although there is no evidence that this is true. Mikao Usui clearly referred to himself as the founder of Reiki[6] and Tibetan medicine does not include hands-on energetic healing.

Those who approached Usui for healing were given a few minutes of light healing touch before being instructed in his method of spiritual self-development. The first level of teaching was freely given. Thereafter, students had to earn other levels through disciplined practice. Each student was taught according to his nature, dedication, and accomplishment. Usui's philosophy was non-dualist, and he stressed spiritual unfolding through regular practice of spiritual techniques which included the use of symbols in ways reminiscent of Taoist talismanic healing images. His teaching was a system of spiritual practice; any physical, emotional, or mental healing that might occur was seen as a natural by-product (personal communication, Kenneth Cohen, December 2002). Students referred to the teachings as Usui-Teate (Usui Hand Touch or Usui Hand Healing). Usui stressed the importance of peaceful mental demeanor, and offered his students 5 precepts to guide them:

Just for today, do not anger.
Just for today, do not worry.
Be humble.
Be honest in your work.
Be compassionate to yourself and others.

In the last year of his life, Usui was approached by his student Chujiro Hayashi (1878-1940), a retired naval officer, with a request to develop the therapeutic aspects of the system separate from the stringent meditative practices. Usui agreed. After Usui's death, Hayashi further developed the system as a practical healing technique without the perceived encumbrance of spiritual practices. He called his technique *Hayashi Shiki Reiki*, and although Usui sometimes used the word, it is likely from Hayashi that the system came to be called Reiki, *Rei* meaning universal or highest and *Ki* meaning subtle energy,[7] like the Chinese *chi*. (It should be noted the vibration accessed in Reiki arises from non-dual primordial chi, or Tao, as distinguished from the bioenergetic level of chi stimulated by therapeutic acupuncture.)[8] Although Hayashi's technique was simplified from Usui's system of spiritual practices, his use of the word Reiki implied that even with his modifications, the healing technique remained rooted in spirituality, that he was accessing the same non-dual conscious vibration for healing.

Hayashi opened a small 8-bed clinic in Tokyo where 16 practitioners gave Reiki treatment in pairs. At some point, Hayashi diverged from Usui's typically Buddhist approach of making teachings and healing available at a low monetary cost, noting that people were more engaged when paying fees for their healing.[6,9] As Reiki became available beyond the circle of spiritual aspirants, it entered the medical marketplace and the issue of compensation for both training and treatment had to be addressed.

Mrs Hawayo Takata (1900-1980), a first generation American, came to Hayashi's clinic in 1936 suffering from respiratory and abdominal complaints.[9] After receiving treatment for 4 months and recovering her health,[10] she became his student and practiced in his clinic. Takata returned home to Hawaii in 1937, carrying Hayashi's instruction to bring Reiki to the West. Hayashi visited Hawaii in 1938, teaching and lecturing, and trained Takata to be a Reiki master. Hayashi signed a certificate on February 21, 1938 attesting that Takata was a fully credentialed Reiki master—the only one outside Japan at the time, and the first woman. Hayashi understood deeply that Usui wanted the teachings to be widely accessible, and was emboldened to step beyond the cultural tradition that would have restricted the practice to Japanese men.

Faced with the challenge of articulating a Japanese healing technique to a largely Christian population in the socio-political climate preceding World War II, Takata pragmatically reshaped the origins of Reiki, presenting Usui as a Christian minister.[6,9] She did not, however, vary the practice from what Hayashi had taught, emphasizing the foundation of consistent self-treatment. Takata taught and shared Reiki for many years in Hawaii. In 1973 she was invited to the mainland, where she taught for the last 7 years of her life. Takata died in December 1980, having initiated 22 Reiki masters (Hayashi and Usui each trained approximately 18).

In less than 15 years after her death, Reiki had spread around the world and returned to Japan, although rarely according to the guidelines she taught. In the mid 1990s, several Western Reiki masters discovered a small group of students who were originally trained by either Usui or Hayashi. One of these students clarified the distinction between vibrational and bioenergetic healing by saying: "Usui-sensei told [us] that [the] method is a spiritual healing technique and an energy healing technique. Spiritual healing brings fundamental healing by helping us to become part of the universal consciousness, while energy healing centers around removing the symptoms of mind and body disorders."[6] Advanced practitioners of biofield therapies, including Reiki, conceptualize the biofield as a continuum from the vibrational, at the deepest and subtlest level, to the bioenergetic, closer to the physical realm. While this distinction has not been scientifically tested, it is important within the system of Reiki healing and essential to the theory behind Reiki, as will be discussed below. The term Reiki refers to both the healing system and the vibration accessed.

Nearly all Reiki practitioners outside of Japan today trace their lineage to the 22 masters trained by Takata. There are also two other teachers, Hiroshi Doi and Premaratna, who offer disciplined practices descended from Usui and Hayashi. This paper uses the term Reiki to refer to the traditional technique as taught by Takata, unless otherwise specified. In accordance with the philosophy of Asian spiritual practices in which the practitioner is always seen as a student of the system and a "master" properly thinks of himself as a "master student," we use the terms "practitioner" and "student" interchangeably.

TRADITIONAL REIKI TREATMENT

Hands-on Reiki treatment is offered through light touch on a fully clothed recipient seated in a chair or reclining on a treatment table. A quiet setting conducive to relaxation is desirable, but not necessary. A full treatment typically includes placing hands on 12 positions on the head, and on the front and back of the torso. Hands can also be placed directly on the site of injury or pain if desired, but the technique is neither symptom nor pathology specific.[11] When even light touch is contraindicated, as in the presence of lesions, the hands can hover inches off the body.[12] A session can be as short or as long as needed,[9] with full treatments typically lasting 45 to 75 minutes. The receiver need not be conscious[13] and Reiki can be offered during surgery.[11] The practice of Reiki is primarily passive, embodying the Asian philosophy of non-action.[14] Offering Reiki is refreshing to the practitioner as well as the recipient. Practitioners believe Reiki has the potential to rebalance the biofield at the deepest vibrational level, thereby removing the subtle causes of illness[9] while enhancing overall resilience. Because Reiki is a holistic modality that supports overall healing and well-being, it is not possible to predict how quickly specific symptoms may respond. Generally, in addressing chronic conditions, a minimum of 4 complete treatments is advised before evaluating clinical benefit.

REIKI TRAINING

Reiki is practiced at the First degree, Second degree, and master level, with each level having a defined scope of practice. At the core of the training, and unique to this practice, is a series of initiations, also called empowerments or attunements, which are believed to connect the student to primordial consciousness, the intelligence that permeates creation, maintaining life-sustaining functions and directing complex cellular processes, and which is the source of subtle Reiki vibration.[7] This connection is believed then to be available at any time, regardless the student's health, mental state or intention. Self-treatment is viewed as the foundational practice for all levels.[9] Reiki practice is considered self-revealing, and students are not taught Reiki as much as they are taught how to learn Reiki. Initiation at each level marks the beginning of study at that level, not the culmination of learning.[6,9]

First degree Reiki is easily learned[12] and appropriate for students of any age or state of health who have the desire to practice. First degree students are able to treat themselves and others using light, non-manipulative touch to precipitate a cascade of healing vibration. The effectiveness of the treatment and the recipient's ability to discern the energy do not seem to be related.[15] It is advisable to practice a minimum of 3 months before proceeding to Second degree.[3]

Second degree practitioners are trained in the use of specific symbols to access Reiki mentally for distant healing. First and Second degree training require 8 to 12 hours of class time each and are usually taught to groups, although private instruction may be arranged. There are 4 initiations in First degree, and 1 initiation for each of the 2 remaining levels.[3]

At all levels, Reiki develops through committed practice. It is not necessary, nor is it advisable, to take higher initiations to improve one's practice. The reason to study another level is to acquire that particular skill—distant healing at Second degree, or teaching and initiation at the master level. At any level, students can only advance through diligent self-treatment. In this way, Reiki masters have not mastered Reiki; they are simply students who feel called to teach, and who continue to learn through teaching. True mastery, in the sense of Usui, Hayashi, and Takata, is not a matter of receiving an initiation, but rather a life committed to practice.[3]

Practicing Reiki 3 to 10 years creates a reasonable foundation for teaching. Master training is an apprenticeship of at least a year.[3] When teaching at any level, it is the Reiki master's responsibility to consider any unusual circumstances and use his or her discretion in customizing the training to fit the individual.[6] Reiki is learned through direct transmission from a Reiki master and cannot be learned from a book.[3] None of the traditional Reiki levels include training in either professional treatment or the dynamics of the therapeutic relationship.

The training described above is the ideal based on Takata. However, since her death in 1980, many Reiki students have not received such thorough training. Today, it is common for new students to receive less than a weekend of training and leave with the misguided impression they are now Reiki masters. One can

only grow in mastery through years of disciplined practice.

Although there are several professional organizations for Reiki masters, the Reiki Alliance adheres most consistently to the standards set by Takata. It has more than 700 members in 45 countries who honor a code of ethics that includes respecting the physician/patient relationship.[3] There are also Reiki masters not affiliated with the Reiki Alliance who are committed to ethical practice and the complete training and initiation of new students. It is important to note that no certificate conveys reliable information about quality of training. Thus, it is useful to include a number of factors when considering a Reiki practitioner's credentials, such as consistency of self-treatment, extent of clinical practice, and length of time between training at different levels. These issues are addressed in other sections of this article.

REIKI THEORY

There is no agreed upon theory for how Reiki might work, and its mechanism of action is still unknown. For this reason, Reiki is subject to the criticism leveled at other CAM modalities by skeptics: it cannot be efficacious because it lacks a known biological mechanism of action. As David Hufford has argued, implicit in this view is the belief that CAM claims will be proven to be 'true' or 'false' on the basis of present scientific knowledge, and that "the acceptance of any theoretically implausible claims would require the abandonment of current scientific knowledge."[16] This of course ends all inquiry before it begins, leaving no room for making connections between theories underlying energy healing practices such as Reiki, Therapeutic touch, or Qi gong, and those emerging in various branches of the conventional sciences.

The concepts underlying energy therapies such as Reiki have theoretical commonalities with a variety of models in physics, none of which have been experimentally linked with medicine or clinical outcomes. Models in bioelectromagnetism, quantum physics,[17] and super string theory[18] are consistent with Asian scripture[19-23] in suggesting that very subtle vibration may be the substratum of reality as we know it, and therefore such vibration may have a role to play in health and disease. For example, Jan Walleczek[24] and Abe Liboff[25] in the field of bioelectromagnetism offer credible scientific support for the potential role of the forces of subtle bioelectromagnetic fields in physiological processes. Walleczek in particular has convincingly demonstrated that subtle magnetic fields can have measurable interactions with biological systems in the area of redox potential and hydroxylation reactions. Although this area of research is in its early stages, these connections suggest that the theoretical underpinnings of Reiki and other energy therapies may not be in direct contradiction to scientific models.

Reiki vibration is understood to be drawn through the practitioner according to the recipient's need,[26] within the ability of the practitioner to carry the vibration. Beginning students often find it difficult to grasp that non-doing can be so effective. The flow of Reiki is believed to increase as the practitioner becomes inwardly more still, an understanding acquired only through prolonged practice. The fact that the vibrational flow is drawn by the recipient allows for great flexibility and ease of delivery. While a practitioner's ability to be a conduit for the vibrations may vary, there is ultimately no wrong technique.[9] Reiki's self-regulatory mechanism precludes "overdosing"—even a dry sponge only absorbs to saturation. Experienced practitioners claim to notice when the healing vibrational flow decreases, at which time they move to the next hand placement.[27] Recipients often sense a vibrational flow, sometimes feeling heat or coolness, or waves of relaxation throughout their body, or in specific areas that may or may not correspond to where the practitioner's hands are placed.[26-28] Such experiences may be evidence of a subtle entrainment effect, similar to that of sound healing, whereby Reiki vibrations attune the recipient's biofield to greater harmony.

Reiki is believed to rebalance the biofield, thus strengthening the body's ability to heal[29] and increasing systemic resistance to stress. It appears to reduce stress and stimulate self-healing by relaxation and perhaps by resetting the resting tone of the autonomic nervous system. Proponents of Reiki believe this might lead to enhancement of immune system function and increased endorphin production.

Programs Currently Incorporating Reiki into Clinical Care

Table 1 provides a summary of programs that incorporate Reiki into the clinical setting. The majority of these programs have not been subject to systematic evaluation due to budgetary and time constraints. However, staff, patients, and program administrators report a number of benefits including reduced anxiety and lower use of pain medications, increased patient satisfaction for surgical patients,[29] and decreased numbers of self-reported common gerontological complaints such as anxiety, loneliness, insomnia, and pain among older individuals living in the community. Reiki can easily fit within the harm reduction model[30] and can be successfully used in self-treatment in combination with appropriate medical/psychiatric care by people with combined HIV and psychiatric diagnoses for emotional centering, pain management, and support in recovery readiness. Children with cancer and their families practice First degree Reiki on themselves and one another. Reiki is a supportive therapy for hospice and palliative care.[31]

OVERVIEW OF REIKI IN CLINICAL PRACTICE

Although Reiki was first used in lay practice, it is increasingly used in a variety of medical settings including hospice care settings;[26,31] emergency rooms;[32] psychiatric settings;[33] operating rooms;[29,34] nursing homes;[35] pediatric,[12] rehabilitation;[35] and family practice centers, obstetrics, gynecology, and neonatal care units;[36] HIV/AIDS;[37,38] and organ transplantation care units;[38] and for a variety of medical conditions such as cancer;[39] pain;[27,29,34] autism/special needs; infertility; neurodegenerative disorders; and fatigue syndromes. Reiki's popularity among the lay population is evidenced by its mention in a wide variety of publications from the *New York Times* and *Time*, to *Esquire* and *Town & Country*.

TABLE 1 Reiki hospital and community based programs

Program	Persons Served	Services Offered
GENERAL MEDICINE		
Wilcox Memorial Hospital Lihue, Kauai, Hawaii	Patients	Treatment
Center for Mind & Body Medicine Mid-Columbia Medical Center The Dalles, Ore	Staff	Training
Portsmouth Regional Hospital Portsmouth, NH	Inpatients and Outpatients	Treatment
Center for Integrative Medicine George Washington University Hospital Washington, D.C.	Outpatients	Treatment and training
HIV/AIDS		
Samuels Center for Comprehensive Care St. Lukes-Roosevelt Hospital Center New York, NY	Adults with HIV/AIDS, family members and caregivers	Treatment and training
Siloam Philadelphia, Pa	People with HIV/AIDS and families	Treatment and training
CANCER		
Direccion de Servicios Metropolitano Sur (Metropolitan South Health Center) (6 hospitals serving 7000 people) Santiago, Chile	Children with cancer	Treatment
Integrative Therapies Program for Children with Cancer Columbia Presbyterian Medical Center New York, NY	Children with cancer and their families	Treatment and training
Dartmouth Hitchcock Medical Center Lebanon, NH	Radiation oncology patients	Treatment
Integrative Medicine Outpatient Center Memorial Sloan Kettering Cancer Center New York, NY	Cancer patients	Treatment and training
SURGERY		
Mercy Hospital Portland, Me	Surgical patients and staff	Treatment
COMMUNITY PROGRAMS		
Addison Gilbert Hospital Gloucester, Mass Bi-weekly Reiki clinics	Community	Treatment
QuaLife Wellness Community Denver, Colo	People with serious illnesses	Treatment and training
Respite Foundation New York, NY	Families with special needs	Treatment
Wolfeboro Free Clinics 13 locations in NH and Me	Community members	Treatment
ELDER CARE		
Dorot New York, NY	Elders	Training
Knox Center for Long Term Care Rockland, Me	Patients	Treatment
Camden Health Care Center Camden, Me residents and staff treatment	Residents and staff	Treatment
HOSPICE		
Hospice Maui Wailuku, Maui, HI	Patients	Treatment and training
Assured Home Health and Hospice Chehalis, Wash	Patients, families, caregivers, staff	Treatment
Good Samaritan Home Health and Hospice Puyallup, Wash	In-patients and out-patients	Treatment and training
Whidbey General Hospital Home Health & Hospice Program Coupville, Wash	Patients	Treatment

There are 3 tiers of Reiki practice:

- Individuals who use Reiki for themselves, family, and friends;
- Licensed or unlicensed health care professionals either offering full Reiki treatment or combining Reiki with other modalities (such as a massage therapist starting/ending treatment with a few minutes of Reiki, or a physician using Reiki to ease the discomfort of an examination);
- Hospital-affiliated and community-based programs offering Reiki treatment or training.

Reiki appears to be an effective stress reduction technique that easily integrates into conventional medicine[12] because it involves neither the use of substances nor manipulative touch that might be contraindicated or carry unknown risks, and because the protocol for Reiki treatment is flexible, adapting to both the need of the patient and of the medical circumstances. Reiki can be used to support conventional medical interventions.[12,27,40] In addition, when used on a conscious patient, the experience is relaxing and pleasant, increasing patient comfort, enhancing relationships with caregivers, and possibly reducing side effects of procedures and medications. Staff report they enjoy giving Reiki treatments.[12] Caregivers who routinely have to hurt patients in order administer needed medical care express gratitude for a tool that minimizes patient discomfort and quickly soothes distressed children. [29,36] There is limited but promising preliminary research evidence for Reiki's use in pain management.

First degree practice is easily learned and can be used in self-treatment.[26] Training patients to practice Reiki self-treatment may reduce the side effects of common medical interventions and empower patients with a simple, effective skill to address anxiety, insomnia, and pain[26] at modest cost.[41] A patient with resources to address his own suffering is better equipped to comply with conventional medical protocols and be a responsible partner to his medical caregivers.[11]

INTRODUCING REIKI INTO CLINICAL PROGRAMS AND HOSPITALS

Even in the absence of a large body of standardized research, clinicians and hospital administrators are including Reiki into patient care.[12] With this in mind, we outline some of the challenges and issues that are being faced.[42]

There are 3 avenues through which Reiki is being incorporated into conventional medical care:

- Medical personnel are learning First degree Reiki, using it for self-care, and integrating comforting touch into routine medical care;
- Reiki practitioners are offering treatment to patients and staff;
- Hospital-based education programs are training patients, family members and caregivers in First degree Reiki.

It is a challenge to locate and identify Reiki practitioners who have the training, clinical experience, and professionalism necessary to be part of a healthcare team.[43,44] There is currently no licensing for Reiki, nor, given its diversity and apparent low-risk, is there likely to be.

The first step when bringing Reiki into clinical settings is the decision to offer treatment or training or both. A Reiki master is needed if Reiki training will be offered, and a traditionally trained Reiki master who has taken training over several years and has additional years of clinical experience is best equipped to set up or supervise a program. A First or Second degree practitioner who has adequate training and clinical experience, who values integrative medical collaboration, and who has references from medical practitioners is qualified to give treatment.

An otherwise qualified Reiki practitioner may need guidance on how to work in a medical rather than a private practice environment.[45] Once expectations are communicated and agreed upon, there may be advantages to using non-medical Reiki practitioners rather than Reiki trained medical professionals when offering Reiki to patients. Integrative medicine calls for the incorporation into medical settings of dedicated and experienced lay CAM practitioners even when their particular expertise lies outside the conventional academic paradigm.[16,46]

There are no professional standards in the practice of Reiki and therefore certificates have little meaning. Discussion of the following questions can be useful when evaluating a practitioner's expertise and appropriateness for collaboration in a medical setting:

1. When did you complete each level of training and how many hours of training did you receive at each level?
2. Do you practice daily self-treatment?
3. What clinical experience have you had since your training?
4. How do you describe Reiki?
5. How would you respond to questions about the meaning of various sensations a recipient might have during or after treatment?
6. How do you feel during and after giving treatment?
7. What role do you see yourself playing as part of an interdisciplinary healthcare team?

The standard of care should be followed for any patient who is receiving Reiki therapy in a clinical setting, including close monitoring of medications. Individuals with diabetes, in particular, have been reported to require less medication once beginning treatment. Outpatients with HIV/AIDS have been able to reduce psychiatric medications under medical supervision when using Reiki self-treatment. It is of interest that people with HIV/AIDS also report greater openness to availing themselves of the benefits of conventional pharmaceutical treatment and increased ease of compliance after using Reiki self-treatment.[47]

STATE OF THE RESEARCH LITERATURE ON REIKI

The preponderance of Reiki studies reported in the literature to date consists of a limited number of case reports, descriptive studies, or randomized controlled studies conducted with a small number of patients. This is in keeping with much of the current

research on complementary therapies. For example, Ke and colleagues reviewed CAM studies from 11 American Medical Association journals, and found that one third of the studies were traditional or narrative reviews and one fifth were randomized, controlled trials.[48] Although few of the published studies of Reiki are randomized controlled trials, it is important to review this literature in order to understand the context of current practice patterns of Reiki and to plan future research from health services research to randomized controlled trials. Because of parallels between Reiki, Therapeutic Touch, and distant healing such as intercessory prayer, these modalities have sometimes been studied together, further confounding the ability to evaluate the separate effects of these therapies. Relevant randomized, placebo-controlled studies looking at Reiki in combination with these other forms of energy healing will be included here (Table 2).

Randomized controlled studies of Reiki and other energy healing and distance therapies

Astin and colleagues undertook a systematic review of randomized trials of any form of "distant healing," defined as "strategies that purport to heal through some exchange or channeling of supraphysical energy."[49] This review included randomized placebo-controlled studies of Reiki, and it is worth reviewing selected findings. Through an electronic review of MEDLINE, PsychLIT, EMBASE, CISCOM, and Cochrane Library databases, the researchers identified 23 trials involving 2774 patients. Only studies that included random assignment and placebo or other control were included in the analysis. Studies were also limited to those published in peer-reviewed journals and which were clinical, rather than experimental in nature.

Astin et al identified over 100 clinical trials of distant healing, with 23 meeting the criteria outlined above. These studies were broken down into 3 subcategories: distant healing including Reiki, prayer, and Therapeutic Touch. Each study was evaluated for methodological quality using Jadad's guidelines on method of randomization, description and method of placebo-control, and description of withdrawals and dropouts.[50] Each study was also evaluated as to whether or not it was adequately powered and whether randomization was successful. The effect size for other distant healing which included Reiki was 0.38, (P=0.073), for prayer the effect size was 0.25 (P=0.009) and for Therapeutic Touch the effect size was 0.63 (P=0.003). Effect sizes were also calculated for the 16 studies in which both patient and evaluator were blinded, which yielded an effect size (0.40, P<.001).

In a series of studies beginning in the early 1990s, Wirth and his colleagues investigated the efficacy of Reiki, in combination with various other forms of energy and distance healing, on pain after extraction of the third molar;[51] wound healing;[52] hematological measures;[53] and multi-site surface electromyographic measurements (sEMG) and autonomic measures.[54] Wirth demonstrated significant reduction in pain and blood urea nitrogen (BUN) and a trend toward normalization of blood glucose for those subjects who had higher than normal levels.[53]

Mansour and colleagues undertook a study to evaluate whether subjects and independent observers could be successfully blinded to "sham" versus "real" Reiki.[55] The study used a 4-round, crossover experimental design with 20 blinded subjects (12 college students, 4 breast cancer survivors, and 4 observers). Two Reiki practitioners were recruited, and 2 "actors" who closely resembled them were trained in the movements of Reiki.[33] Subjects received consecutive treatments from 2 different practitioners during each round of the intervention. The following combinations of practitioners were used: Reiki plus Reiki, or placebo plus placebo, or Reiki plus placebo, or placebo plus Reiki. The subjects were asked to evaluate the interventions and guess which treatments were administered by a real Reiki practitioner and which by a placebo Reiki practitioner. None of the subjects accurately distinguished the Reiki practitioners from the placebo practitioners, suggesting that studies using hands-on Reiki therapy can be blinded. These findings support the work of Ai and colleagues, who reported successful blinding of patients and independent observers in the use of placebo versus real Qigong therapy.[56] Another interesting finding from the Mansour study came from subjects' self-report of "sensations," such as tingling and heat, that were experienced during each round of treatment. Subjects indicated that these sensations were most intense during the second round of the intervention, when they received Reiki plus Reiki. The investigators noted this might suggest a cumulative Reiki effect.[55]

Finally, a study by Shiflett et al[15] used a modified double-blind placebo control design to investigate effects of Reiki on 50 subacute ischemic stroke patients. Ten patients were treated by a Reiki master, 10 were treated by practitioners trained in First degree, and 10 were treated by "sham" practitioners who had been trained in Reiki techniques but had not received initiation into Reiki. An additional 20 historical control subjects identified through hospital records were used as a no-treatment comparison group. Results showed no evidence of short-term benefit in terms of functioning or depression, as measured by standardized instruments. However, the authors note that data on long-term and cognitive change were not available, and so it was not possible to measure the potential impact of Reiki on these dimensions.

Exploratory studies of physiological changes associated with Reiki

One study by Wetzel, investigated the hypothesis that touch therapies increase oxygen-carrying capabilities as measured through changes in hemoglobin and hematocrit values.[57] Wetzel measured changes in these values over a 24-hour period, during which the intervention group, 48 essentially healthy adults, participated in Level I Reiki training. The intervention group demonstrated significant changes in both hemoglobin and hematocrit values, as compared to a small control group of 10 healthy medical professionals, which demonstrated no change.

Wardell and Engebretson used a single group repeated measure design to study the effects of 30-minutes of Reiki on 23 healthy subjects.[58] Data on biological markers related to the stress reduction response, including state anxiety, salivary IgA

and cortisol, blood pressure, galvanic skin response, muscle tension, and skin temperature were collected before, during, and after the Reiki session. Results indicated biochemical changes in the direction of increased relaxation and immune responsivity, with significant reduction in state anxiety, drop in systolic blood pressure, and increase in salivary IgA levels. There was a non-significant reduction in salivary cortisol, which has been linked to longevity in breast cancer survivors.[59]

Brewitt, Vittetoe, and Hartwell studied 5 patients with a variety of chronic illnesses (multiple sclerosis, lupus, fibromyalgia, and thyroid goiter) who received 11 Reiki treatments over a 9-week period.[60] They measured changes in electrical skin resistance at over 40 sites corresponding with acupuncture/conductance points, and collected patient reports of anxiety, pain, and mobility. Significant changes occurred at 3 skin points corresponding to acupuncture meridians, and patients also reported increased relaxation, reduced pain, and increased mobility. While results may have been biased by the lack of prior hypotheses regarding which specific points would be active, the study suggests interesting directions for future research.

Descriptive and phenomenological studies

A number of recent observational and descriptive studies have focused on the effects of Reiki in reducing pain and increasing relaxation and a sense of well-being in patients. In 1997, Olson and Hansen investigated the impact of Reiki on chronic pain using a pre- and post-test design and validated self-report measures. Twenty volunteers who experienced chronic pain from a variety of causes, including cancer, demonstrated a significant decrease in pain after receiving a single 75 minute Reiki session.[61]This study is limited by its design and the existence of a number of potentially confounding variables, but it does point to possible clinical applications of Reiki that should be studied further.

The Windana Society in Melbourne, Australia has operated a Reiki clinic for more than 10 years and provides holistic care to clients who are undergoing treatment for withdrawal from drugs and alcohol.[62] The staff reviewed clinical records and conducted a client survey. Both clients and staff attribute a number of client outcomes to Reiki therapy, including reduced pain and improvements in clients' sleep patterns, mood, and clarity of thinking. Their data supports the hypothesis that Reiki promotes a greater sense of self-awareness and connectedness, and brings profound relaxation. Clients described Reiki as bringing them a sense of peace and well-being that enabled them to continue with their recovery and enhanced their counseling sessions.

The heightened state of awareness and sense of inner peace and calm reported by clients at Windana were also identified as a major theme in qualitative data collected by Engebretson and Wardell.[58] Subjects expressed feelings of safety and perceived relationship with the practitioner. Some also described what the authors defined as a liminal state of consciousness, hovering between awareness and sleep. The authors noted that such liminal states are often associated with spiritual experiences and cross-cultural ritual healing practices. They propose that the subjective nature of the experience may be related to its effectiveness and that commonly used research methods may lack the complexity needed to capture the non-linearity of the subjects' experience. Incorporating these viewpoints is essential to the effective design of future studies of Reiki. The sense of connectedness felt by the above subjects towards an unfamiliar practitioner is of interest in light of studies that have identified practitioner-patient bonding as an important factor in healing.[63] Descriptive and qualitative data provide us with important insights into the perceived benefits of Reiki from the viewpoint of those who use it in a real world healthcare setting.

DIRECTIONS OF FUTURE RESEARCH

Although it comes mostly from descriptive studies or randomized controlled trials with design limitations, evidence of the beneficial effects of Reiki makes a compelling case for the need for further research. Future studies to identify possible mechanisms should build upon work already done and be informed by emerging theories in the physical sciences. At the same time, it is critical to undertake well-designed studies of specific biological effects, as well as potential clinical benefits of Reiki.

In the case of biofield therapies, it is important to understand what practitioners consider to be essential to the transmission of healing energy. In Reiki, it is initiation and passive vibrational flow rather than intention that is essential and this explanatory model should be taken into account. Involving practitioners who are knowledgeable regarding the theory and practice of Reiki and familiar with the methods and constraints of scientific inquiry in the earliest stages of study design will greatly enhance the quality of research.

A greater incorporation into CAM research of qualitative methods and mixed methodological design (where qualitative methods are used to expand upon and elucidate findings from quantitative data) would be useful in research in energy medicine.[46,-64-65] Thus, for example, if qualitative and descriptive data described above tells us that recipients of Reiki report greater self-awareness, feelings of "centeredness," and overall well-being, then these are important outcomes to try to measure, even if associations between these "patient-centered" outcomes and "clinically meaningful" outcomes, such as improvement in function or greater receptivity to therapeutic counseling, are difficult to measure. Randomized, controlled trials may not be the ideal strategy in cases where the outcomes being measured are related to chronic disease with uncertain trajectory, or where the treatment being investigated is not easily standardized or consists of multiple components.[66]

Further research using objective markers to track response to an intervention may be able to use cutting edge genetic tools such the TheraTrak gene and protein expression system from Source Precision Medicine (Boulder, CO).[67] Here a patient's blood is mixed with a panel of highly sensitive and calibrated inflammatory genetic markers that track a patient's response to a therapeutic intervention (such as Reiki) in much the same way we have historically used

TABLE 2 Summary of Randomized, Controlled Studies of Reiki and Related Modalities

Main Author, Year	Design	Sample Size, Population	Results	Comments
Astin 2000[49]	Systematic review of randomized, placebo-controlled trials of distant healing modalities	23 trials involving 2774 patients	13 (57%) of 23 trials yielded statistically significant treatment effects, 9 showed no effect over control interventions, and 1 showed a negative effect.	The authors identified a number of limitations in studies of distance healing, including underpowered studies and inadequate randomization resulting in non-homogeneous study groups. The authors concluded that further study of distant healing interventions is merited.
Wirth 1993[51]	Randomized, controlled trials, intervention received Reiki and LeShan.	21 patients with impacted third molar	Treatment group experienced less pain in degree and intensity, results were statistically significant.	Study limited by small sample size and absence of a power analysis. Use of a design where individual subjects served as their own control is both a strength and a weakness of the study.
Wirth 1996[52]	Review of 5 randomized, controlled trials, combinations of Reiki and Therapeutic Touch.	Range of 15 to 44 healthy subjects, experimentally induced full thickness biopsy wounds.	Inconclusive, some studies showed significantly faster healing in treatment group, while others showed nonsignificant effects or reverse significance.	Studies limited by potential confounding variables, such as the presence of a research assistant in the room during intervention and by nonhomogeneous study groups.
Wirth 1996[53]	Randomized controlled trials, combination of Reiki, TT, LeShan and Qigong	14 healthy subjects, including Qi gong students	Treatment group demonstrated significant reduction in blood urea nitrogen and trend toward normalization of blood glucose in subjects who had higher than normal levels.	Limited by small sample size, absence of power analysis, and potentially confounding variables, including use of Qi gong students as subjects. Demonstrated possible bioenergetic adaptogenic effect of energy therapy.
Wirth 1997[54]	Review of 3 randomized, controlled trials, Reiki, TT, and Qi gong	Range of 12 to 44 healthy subjects, sEMG and autonomic measures	Statistically significant reduction in sEMG activity at thoracic and lumbar sites, corresponding to regions associated with autonomic system and relaxation response.	Limited by confounding variables, use of multiple healers across treatment groups, and non-homogeneous study groups, including subjects with extensive meditation experience
Mansour 1999[55]	Randomized, placebo-controlled crossover design, Reiki and "sham" Reiki	20 blinded subjects, outcome measures included ability to identify "real" Reiki practitioner, sensations experienced	Participants were unable to differentiate between "real" and "sham" Reiki practitioner.	Demonstrates that successful blinding of participants is possible. Participants in the Reiki plus Reiki intervention reported greater intensity of sensations during treatment, suggesting that Reiki energy has a "cumulative" effect
Shiflett in press[15]	Randomized, placebo-controlled trial, Reiki master, Reiki Level 1 or "sham" Reiki	50 subacute ischemic stroke patients, plus 20 historical controls, outcome measures related to function and depression	No significant differences between intervention and control groups on overall function or depression. Treatment groups showed some positive effects on mood and energy.	Data on long-term and cognitive change were not available, so potential impact of Reiki on those dimensions is unknown. Use of historical controls may have biased results. Inadequate sample size may have resulted in Type II error (failing to detect significant differences when they do in fact exist).

sEMG = surface electromyographic measurements; TT = Therapeutic Touch

a patient's hematocrit to track response to iron supplementation.

Currently, 3 studies of Reiki funded by NCCAM are in progress. One at the University of Michigan is investigating the use of Reiki for patients with diabetic neuropathy. A second study at Albert Einstein Medical Center in Philadelphia examines the use of Reiki to improve quality of life and spiritual well-being for patients with advanced HIV/AIDS.[70] The third, a study for patients with fibromyalgia, is being conducted out of the Department of Family Medicine of the University of Washington School of Medicine.[69] Whereas biofield therapies such as Reiki, Qi gong and Therapeutic Touch may themselves have different mechanisms of action, they all share with meditation the effect of moving the system in the direction of relaxation, which has been linked to health and healing. Research that builds on this commonality would advance our understanding of the process of healing while offering patients and clinicians the choice as to which technique is the best match for a particular situation or individual.

Many CAMs, and subtle energy therapies in particular, aim to relieve suffering, restore balance, and return each person to wholeness. The standards of replicability and generalizability so central to the scientific paradigm can be at odds with the inherent individualization of actual Reiki practice and treatment. However, the fact that so many people adopt Reiki as a spiritual and healing practice and so many more seek treatment from a Reiki provider, means that we must find ways to study its potential benefits and applications. Research using currently available and emerging methods will provide us with data about possible mechanisms, but more importantly, we must investigate how Reiki might benefit patients, and in what specific areas. The experiences and reports of Reiki's benefits from patients, healthcare providers, and Reiki practitioners require that we do so.

DISCUSSION

Healing is a multidimensional process that is strengthened by reducing stress and accessing psychospiritual resources. Research suggests that CAM users are seeking therapies congruent with their values, beliefs, and philosophical perspectives on life and well-being.[70] Patients experience Reiki as a relaxing practice, free of dogma, that connects them to their innate spirituality through experiences unique to each individual.[29,35]

Future research on Reiki efficacy should identify outcomes measures, such as increased sense of spiritual well-being, that are relevant to patients' experiences and that may have an impact on clinical outcomes.The creation of an integrated medical practice would be advanced by hospitals collaborating with professional, well trained, highly experienced Reiki masters to develop medically relevant First degree classes with Continuing Education Units that are open to all staff members.[45] Graduates of such programs report First degree Reiki training is a simple, effective practice to support personal well-being, enhance clinical skills, and deepen their appreciation of what CAM offers conventional medicine, in terms of both techniques and perspective.

Reiki has come full circle. Usui created a spiritual practice that includes healing as a side benefit. Hayashi developed a healing technique that offers spiritual enhancement to those who receive treatment regularly from themselves or another. Consistency is the key. Through all its modifications, Reiki remains a spiritual discipline that must be practiced regularly for its full benefit to be realized.

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