

Educate, Try, and Share: A Feasibility Study to Assess the Acceptance and Use of Reiki as an Adjunct Therapy for Chronic Pain in Military Health Care Facilities

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ABSTRACT

Introduction

Reiki, a biofield energy therapy, continues to struggle in finding its permanent place among the portfolio of complementary and alternative medicine modalities in many military health care facilities. Although it has been shown to help in the management of pain, lack of knowledge and limited first-hand experience impact its foothold. The purpose of this feasibility study was to (1) educate participants about the concept of Reiki, (2) give participants the opportunity to experience six Reiki therapy sessions and subsequently assess outcomes on chronic pain, and (3) assess participants' impression of and willingness to continue using and recommending Reiki therapy as adjunct for the treatment of chronic pain.

Methods

Using a prospective repeated measures pre- and postintervention design, a convenience sample of 30 military health care beneficiaries with chronic pain were educated about Reiki and received six 30-minute Reiki sessions over 2 to 3 weeks. Pain was assessed using a battery of pain assessment tools as well as assessment of impression of and willingness to share the concept of Reiki. This study was approved by the U.S. Army Medical Research and Materiel Command Institutional Review Board (No. M10617).

Results

Repeated measures ANOVA analyses showed that there was significant decrease ($P < 0.001$) in present, average, and worst pain over the course of the six sessions with the most significant effect occurring up to the fourth session. When a variety of descriptor of pain was assessed, Reiki had a significant effect on 12 out of the 22 assessed, with the most significant effect on pain that was described as tingling/pins and needles ($P = 0.001$), sharp ($P = 0.001$), and aching ($P = 0.001$). Pain's interference with general activity, walking, relationships, sleep, enjoyment of life, and stress significantly decreased ($P < 0.001$ to $P = 0.002$). Impression of improvement scores increased 27% by session 6, and one's knowledge about Reiki improved 43%. Eighty-one percent of the participants stated that they would consider scheduling Reiki sessions if they were offered with 70% desiring at least four sessions per month.

Conclusion

A 30-minute Reiki session, performed by a trained Reiki practitioner, is feasible in an outpatient setting with possible positive outcomes for participants who are willing to try at least four consecutive sessions. Reiki has the ability to impact a variety of types of pain as well as positively impacting those activities of life that pain often interferes with. However, education and the opportunity to experience this energy healing modality are key for its acceptance in military health care facilities as well as more robust clinical studies within the military health care system to further assess its validity and efficacy.

INTRODUCTION

Reiki (pronounced ray-kee) is a biofield energy therapy that was formalized in Japan by a Buddhist named Mikao Usui in the mid 1800s and introduced to the United States by Hawayo Takata in the late 1930s.¹ The principles of the practice are based on the fact that everything in the universe is made up

of energy, and when that energy is out of balance, illness or disease occurs.² This imbalance can be restored by a trained practitioner skilled in the ability to passively flow energy to a recipient in turn allowing the rebalanced body to heal itself.¹ During a Reiki therapy session, the practitioner places her/his hands slightly above or directly on the recipient in a systematic series of hand placements.² Practitioners are trained by a Reiki master and can achieve three levels of skills.² At level 1 (first degree), the practitioner learns how to open the energy channels on a physical level to connect to the universal life force energy.^{3,4} At this level, the practitioner also learns the concept of Reiki self-care. At level 2 (second degree), the practitioner learns "Reiki symbols" and achieves level 2 attunement.^{3,4} Reiki symbols allow the practitioner to connect more deeply to the universal energy, as well as draw on the qualities that the symbols represent.^{3,4} At this level, the practitioner also learns

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how to provide Reiki at a distance.^{3,4} Finally, at level 3 (third degree or Reiki master), the practitioner is now at the teacher's level and has the knowledge, experience, and skills to attune new practitioners.³⁻⁴

REIKI RESEARCH

The Center for Reiki Research is the main storehouse for evidence-based Reiki research that has been published in peer-reviewed journals.⁵ In a review of 13 peer-reviewed placebo-controlled Reiki studies published between 1998 and 2016, 8 of the 13 studies showed that Reiki was more effective than placebo.⁶ For studies that assessed Reiki's efficacy for pain specifically, a 2003 study of 24 cancer patients who received opioids plus Reiki therapy, showed that Reiki reduced pain ($P = 0.035$) on day 1 as well as showed a significant difference ($P = 0.002$) on day 4 when compared with the group who used opioids plus rest.⁷ In a 2006 study assessing the effect of Reiki therapy on pain in women after having a hysterectomy, there was a significant decrease in pain at 24 hours postsurgery ($P = 0.04$), whereas those who received Reiki therapy took less pain medication at time 2 ($P = 0.001$), time 3 ($P = 0.007$), and time 6 ($P = 0.04$).⁸ In a 2007 randomized crossover study of 16 patients, Reiki was found to be efficacious in reducing pain after receiving chemotherapy ($P < 0.05$).⁹ In another 2007 study comparing Reiki and sham Reiki to usual care, there was a within-group decrease in pain ($P = 0.002$ and $P = 0.039$, respectively) with no significant decrease in the group that just had usual care ($P = 0.622$).¹⁰ Finally, in a 2010 study comparing Reiki therapy to a control group, there was a significant within-group decrease in pain ($P = 0.007$) in the Reiki group and a significant increase in pain ($P = 0.015$) in the control group.¹¹

REIKI IN MILITARY HEALTH CARE

Although there are currently 60 hospitals and clinics throughout the United States that offer Reiki services,⁵ Reiki continues to struggle to find its permanent place among the portfolio of complementary and alternative medicine (CAM) modalities in many military health care facilities. CAM approaches, such as Reiki therapy, are nonpharmacological, well-tolerated alternatives that are safe, cost-effective, and generally favorable in the alleviation of symptoms associated with pain.⁵

The 2010 Army Surgeon General's Pain Management Task Force Final Report reignited the pursuit of CAM modalities for chronic pain.¹² The report addressed the increase in the overreliance of pain medication in military health care and Section 4.2.1 of the report specifically addressed the need to incorporate CAM modalities as part of the plan of care.¹² Although there has been a great need for CAM in the military health care setting for things such as chronic pain, stress, anxiety, and sleep disturbance, the lack of provider availability has often been the biggest hinderance.¹³ Reiki therapy has been shown to help with such health issues; however, the lack

of knowledge about the therapy, therapist requirements, and misinformation about the practice impact its acceptability and use.¹⁴

Several military health care organizations have led the charge to bring Reiki to the forefront. One military health care facility in the eastern United States took a unique approach to educate its health care professionals about Reiki by simply teaching them Reiki self-care.¹⁵ That, in turn provided the staff with a first-hand experience to be able to confidently recommend the practice to their patients.¹⁵ A second approach to increase Reiki exposure in military health care was to offer free Reiki therapy sessions. Comfort for America's Uniformed Services (CAUSE), a nonprofit organization that provides services to ill and injured service members, recurrently provided free Reiki sessions for service members and their families.¹⁶ Since such programs have been well received, Reiki organizations have even received Veteran's Administration funding to provide veterans with free Reiki sessions as well as training on the practice.¹⁷ If military health care beneficiaries were educated on Reiki and experienced Reiki therapy, the researchers postulate that these beneficiaries would be persuaded to seek Reiki therapy sessions for the management of chronic pain.

The purpose of this feasibility study was to (1) educate participants about the concept of Reiki, (2) give participants the opportunity to experience six Reiki therapy sessions and subsequently assess outcomes on chronic pain, and (3) assess participants' impression of willingness to continue using and recommend Reiki therapy as adjunct therapy for chronic pain. The long-term goal of this study was to establish Reiki therapy as a recognized modality among other CAM options in military health care facilities.

METHODS

Research Design

Recruitment and Participants

Recruitment flyers were posted around the health care facility in locations commonly visited by patients with complaints of chronic pain (eg, pain clinic, primary care clinic, pharmacy, etc.). Advertisements were posted monthly in the community newspaper and on the facility's social media platforms. A segment that discussed the research study and the concept of Reiki was developed and advertised on the Armed Force Network radio station. To be included in the study, participants had to (1) be a military health care beneficiary (active military, reservist, retiree, or military family member), (2) have chronic pain (as defined by pain that has lasted more than 6 months since first onset), (3) be receiving a stable pain medication regimen (defined as a regimen that has not increased 10% to 20% in the week before enrollment), (4) be affiliated with at least one of the outlying installations associated with the selected military health care facility, (5) be eligible to receive health care at the military health care facility, (6) be 18 years and older, (7) be able to read and speak English, and (8)

be able to commit to six sessions (lasting ~11–21 days). Participants were excluded if they (1) were being scheduled for any surgeries or painful procedures during the study or (2) already had a working knowledge of Reiki or received Reiki therapy in the past.

Intervention

After being properly screened and consented, participants completed a Participant Demographic Sheet to obtain demographic data to include age, gender, race ethnicity, military status, branch affiliation, location of pain, and pain relief modalities.

Education Intervention

To educate the participants about Reiki, a short slide presentation and discussion regarding the history, concept, usage, and common misunderstandings about Reiki was presented to each participant before their first Reiki therapy session. The presentation was designed by the study's Reiki Consultant who is a published author and former research staff member for the Center for Reiki Research. To measure participant's knowledge, a short 5-item Reiki Knowledge Assessment Questionnaire was administered before the educational intervention and after the final Reiki session (Table I). The questionnaire was developed by the investigator and focused on the most common confusing aspects about Reiki: (1) definition of Reiki, (2) required credentials of a Reiki practitioner, (3) origin of Reiki, (4) uses for Reiki, and (5) Reiki in relation to healing touch (HT) and therapeutic touch (TT).

Reiki Intervention

Each participant was scheduled to receive a total of six Reiki therapy sessions over the course of 2 to 3 weeks, with no less than 1 day and no more than 3 days in between sessions. The Reiki interventions were performed on a massage table in a quiet, darkened room located in the research department. Participants remained fully clothed with the exception of shoes, while lying in a supine position with any requested bolstering support. The interventions were performed by four level 1 Reiki practitioners (one registered nurse, one psychologist, and two military spouses) who were trained by the same Reiki

master using a standardized 10-hand placement protocol. The hand placement protocol was designed by study's Reiki consultant who is a published author and former research staff member for the Center for Reiki Research. The hand placements started at the participant's head working their way down to shoulders, chest, hips, and feet. Each hand placement position lasted ~3 minutes, for a total of 30 minutes. To ensure continuity among the four practitioners, each practitioner followed the same verbal script at the start of the session and talking was kept to a minimum. Each practitioner received at least one fidelity check observation by research coordination, using a checklist of the hand placement and script, to ensure that the interventions were being performed in accordance with the approved protocol. After each session, participants were given the opportunity to share any comments, questions, or concerns with the research coordinator.

To measure Reiki's impact on pain over time, participants completed a battery of well-validated pain assessment questionnaires before each session and one additional questionnaire at the midpoint and end. Questionnaires were administered by the research coordinator as the participant waited for the practitioner to prepare the room for the session.

Brief Pain Inventory Short Form assesses the time relation sensory component of pain intensity (average over the last week, worst and least, and present pain) using a numeric rating scale 0 (no pain) to 10 (pain as bad as you can imagine), percentage of pain relief 0 (no relief) to 10 (complete relief), and seven pain interferences concerning work, activity, mood, enjoyment, sleep, walk, and relationships are assessed using 0 (no interference) to 10 (complete interference).¹⁸ The Cronbach alpha for the original instrument ranged from 0.80 to 0.87 for the pain severity items and from 0.89 to 0.92 for the interference items.¹⁹

Defense and Veteran Pain Rating Scale (DVPRS) and DoD/VA Pain Supplemental Questionnaire were created by the Defense and Veteran Center for Integrative Pain Management. The DVPRS is a Likert scale graphic tool to describe one's current level of pain.²⁰ The score ranges from 0 (no pain) to 10 (as bad as it could be nothing else matters).²⁰ The scale was also color coated depicting mild 1 to 3 (green), moderate 4 to 7 (yellow), and severe 8 to 10 (red).²⁰ The Supplemental Questionnaire, which is often used in conjunction with the

TABLE I. Data Collection Timetable

Instrument	Baseline	Session 1	Session 2	Session 3	Session 4	Session 5	Session 6
Participant Demographic Sheet	X						
Brief Pain Inventory	X	X	X	X	X	X	X
Defense and Veteran Pain Rating Scale		X	X	X	X	X	X
DoD/VA Pain Supplemental Questions		X	X	X	X	X	X
McGill Pain Questionnaire-Short Form		X	X	X	X	X	X
Patient Global Impression of Improvement Scale				X			X
Pain Medication Diary		X	X	X	X	X	X
Reiki Knowledge Assessment	X						X
Post-Study Questionnaire							X

DVPRS, measures the biopsychosocial impact of pain on four areas: activity, sleep, mood, and stress.²⁰ The Cronbach alpha reported for the five items was 0.90, and the slightly edited version of the supplemental items was 0.82.²⁰

The Short-Form McGill Pain Questionnaire (SF-MPQ-2) is a 22-item screening tool to assess pain in four dimensions: continuous pain (6 items), intermittent pain (6 items), neuropathic pain (6 items), and affective descriptors (4 items).²¹ Scoring is based on 10-point Likert scale ranging from 0 (none) to 10 (worst possible); the SF-MPQ-2 had a Cronbach alpha of 0.96.²²

The Patient Global Impression of Improvement Questionnaire (PGII) is a one-item questionnaire designed to capture one's global impression of their improvement after receiving an intervention. The item is measured on a 7-point Likert scale with 1 (very much improved) to 7 (very much worse). The PGII was administered before sessions 3 (midpoint) and 6 (final).

Pain Medication Diary was reviewed before each session only to assess if any pain-relieving interventions (pharmaceutical and nonpharmaceutical) was used in between sessions. These data were strictly for informational purposes only.

At the final Reiki session, a Post-Study Questionnaire was administered. This 5-item questionnaire, designed by the investigator, assessed one's impression of Reiki; their willingness to tell a family member, friend, or co-worker; and their thoughts of Reiki being offered as a permanent adjunct therapy option at their health care facility. At the final session, participants also received a \$20 gift card for travel compensation.

Statistical Analyses

Since this was a feasibility study with a convenience sample of 30 participants, a power analysis was not conducted. Given that a reduction of ~2 points on an 11-point scale (18% reduction) is considered clinically significant, a 1.8-point reduction (18%) on the 10-point scale instruments used for the study was considered clinically significant.²³ For all data analyses, data were examined for outliers, non-normality, and homoscedasticity/heterogeneous variances, and missing data.^{24–26} For examining and testing the relationship of pain outcomes and pre- and postmeasures, bivariate correlations were tested for significance ($\alpha = 0.05$).^{24–26} For comparing subgroup means (type of pain), one-way ANOVA was conducted for the quantitative outcomes that met the assumptions (homogeneity of variance, normality).^{24–26} If the assumptions were not met, remedial measures such as transformations (log to the base 10) or alternative techniques (nonparametric or robust methods) were considered.^{24–26} As there were more than two subgroups assessed and the omnibus F test was significant ($\alpha = 0.05$), the Sidak multiple comparison procedure test was performed to test all pairwise differences.^{24–26} All analyses were conducted using SPSS 23.0, HLM 7.01, and/or Mplus 7.4, with level of significance of $\alpha = 0.05$.

RESULTS

This study was approved by the U.S. Army Medical Research and Materiel Command Institutional Review Board (No. M-10617). All participants signed an approved informed consent before participation, and the study was carried out in accordance with ICH/GCP guidelines.

Participants

Of the 30 participants enrolled, 100% completed the study. Since data were collected by the research coordinator while participants waited for their session, there was no missing data. Participants mean age was 46.93 (standard deviation = 11.9) with the majority being U.S. Air Force (57%). The sample was made up of predominately Caucasian (87%), female (60%), and military dependents (47%) with 43% complaining of generalized pain (Table II). Although there was minimal use of pain-relieving modalities in between sessions, the most commonly listed pain-relieving modalities were the use of nonsteroidal anti-inflammatory drugs, yoga, and the application of ice/heat.

Findings

A comparison of the pre- and post-Reiki Knowledge Assessment showed that pretest scores ranged from 60% to 90%, whereas posttest scores ranged from 87% to 97%. Thirty-three percent of the participants obtained a perfect score on the pretest compared with 77% on the posttest. The most commonly missed question was determining the difference between the similar healing modalities of Reiki therapy, HT,

TABLE II. Demographics

	<i>n</i>	%
Gender		
Female	18	60
Male	12	40
Race		
Asian	3	10
Hawaiian/Pacific Islander	1	3
White/Caucasian	26	87
Hispanic (ethnicity)		
No	29	97
Yes	1	3
Military status		
Active duty	9	30
Dependent	14	47
Reservist	1	3
Retiree	6	20
Military branch		
Air Force	17	57
Army	11	37
Navy	2	6
Area of chronic pain		
Upper body	6	20
Lower body	3	10
Back	8	27
Generalized	13	43

TABLE III. Present, Average, and Worst Pain Over Time

Session	Group	Mean	Standard Deviation	Lower 95% CL for Mean	Upper 95% CL for Mean
Baseline	Average	4.133	1.408	3.608	4.659
	Present	3.700	1.841	3.013	4.387
	Worst	5.467	1.717	4.826	6.108
1	Average	3.967	1.189	3.523	4.410
	Present	4.100	1.539	3.525	4.675
	Worst	5.333	1.749	4.680	5.986
2	Average	3.833	1.234	3.373	4.294
	Present	3.433	1.775	2.771	4.096
	Worst	4.900	1.807	4.225	5.575
3	Average	3.667	1.626	3.060	4.274
	Present	3.000	1.912	2.286	3.714
	Worst	4.467	1.871	3.768	5.165
4	Average	3.300	1.489	2.744	3.856
	Present	2.667	1.749	2.014	3.320
	Worst	4.100	1.882	3.397	4.803
5	Average	3.267	1.596	2.671	3.863
	Present	2.567	1.832	1.882	3.251
	Worst	4.300	2.054	3.533	5.067
6	Average	2.967	1.691	2.335	3.598
	Present	2.600	2.061	1.830	3.370
	Worst	3.900	2.023	3.145	4.655

and TT, which was addressed during the slide deck presentation at the initial appointment.

There was a significant decrease ($P \leq 0.001$) in present, average, and worst pain over the course of the six sessions with a steady decline up to session 4 (Table III, Fig. S1). When the description of the type of pain was assessed, Reiki had a significant effect on 12 out of the 22 that were assessed, with the most significant effect on pain that was described as tingling/pins and needles (-0.90 points; $P = 0.001$), sharp (-1.70 points; $P = 0.001$), and aching (-1.97 points; $P = 0.001$), which was also clinically significant (Table IV). Whether pain was classified as continuous or intermittent, both were significant ($P < 0.001$).

Finally, when one's level of pain interference in their life was assessed, Reiki significantly decreased pain interference with walking (-1.30 points; $P < 0.001$), enjoyment of life (-1.37 points; $P < 0.001$), sleep (-1.47 points; $P = 0.002$), relationships (-0.70 points; $P = 0.002$), and general activity (-1.43 points; $P < 0.001$) (Table S1).

Participant's impression of their improvement was assessed at session 3 and session 6. At session 3, 7% reported feeling "much better," 60% "a little better," 30% "no change," and 3% "a little worse." However, by session 6, 10% reported feeling "very much better," 27% "much better," 47% "a little better," and only 16% "no change." When asked "If Reiki services became available at your health care facility, would you make an appointment?" 81% of the participants stated "yes" with 42% willing to come in "four times per month," followed by 29% "more than four times per month." Finally, when asked "Would you recommend Reiki?" 81% of the participants stated "yes."

DISCUSSION

After introducing Reiki to 30 Reiki-naïve participants, the study found that their pre- and post-Reiki Knowledge scores improved, coupled with a willingness to continue Reiki therapy for up to four or more times per month. The 30-minute hand placement Reiki protocol, conducted by trained level I practitioners, was feasible in an outpatient setting.

Because there was overall improvement between pre- and post-Reiki Knowledge scores, it was determined that the first study aim was met. However, the ability to distinguish the differences between Reiki, HT, and TT was still an issue. It is critical to be able to recognize the differences between the three to be able to provide the proper feedback needed for stakeholders to make informed decisions about what would be needed to incorporate the service(s). Organizations who want to incorporate such therapies are faced with the challenges of choosing between the therapies as well as knowing what credentials to look for and ways to validate those credentials. For these reasons, a consolidated effort between the three camps is imperative to provide the public with formal guidance addressing their similarities, differences, training, and governing principles.²⁷ Follow-on studies should be considered to compare Reiki, HT, and TT with one another via a crossover study design method. Comparing the three methods may provide some insight into which populations do better with a specific type of energy healing practice. Leaders in the fields of Reiki, HT, and TT should put forth a consolidated effort that will properly educate the public, provide the necessary regulatory guidelines for health care leaders, and conduct more rigorous as well as replication studies to substantiate the practice.

TABLE IV. Description of Pain

Description of Pain	Baseline Score, Mean (95% CI)	Point Change From Baseline, Mean (95% CI)	P value ^a
Aching	4.83 (3.961, 5.705)	-1.97 (-3.112, -0.821) ^b	0.001
Tingling pins and needles	2.13 (1.309, 2.958)	-0.90 (-1.403, -0.397)	0.001
Sharp	2.93 (1.851, 4.016)	-1.70 (-2.691, -0.709)	0.001
Cramping	2.30 (1.248, 3.352)	-1.10 (-1.995, -0.205)	0.006
Throbbing	2.63 (1.695, 3.571)	-1.07 (-1.943, -0.190)	0.006
Stabbing	2.43 (1.312, 3.554)	-1.03 (-2.162, 0.095)	0.018
Numbness	1.80 (0.989, 2.611)	-0.53 (-1.021, -0.046)	0.020
Shooting	2.23 (1.230, 3.237)	-0.87 (-1.935, 0.202)	0.020
Tiring	3.33 (2.119, 4.548)	-1.47 (-2.694, -0.239)	0.021
Hot burning	1.23 (0.415, 2.052)	-0.77 (-1.511, -0.022)	0.024
Pain caused by light touch	1.77 (0.744, 2.789)	-0.70 (-1.527, 0.127)	0.036
Gnawing	1.83 (0.763, 2.903)	-1.10 (-2.215, 0.015)	0.046
Sickening	0.43 (0.071, 0.796)	-0.30 (-0.562, -0.038)	0.076
Tender	2.30 (1.243, 3.357)	-0.67 (-1.724, 0.391)	0.084
Heavy	1.93 (0.948, 2.919)	-0.83 (-1.800, 0.133)	0.086
Piercing	1.50 (0.587, 2.413)	-0.43 (-1.388, 0.521)	0.163
Fearful	0.50 (-0.026, 1.026)	-0.37 (-0.832, 0.098)	0.184
Splitting	1.03 (0.234, 1.833)	-0.47 (-1.069, 0.136)	0.194
Cold freezing	0.27 (0.267, 0.605)	-0.23 (-0.522, 0.056)	0.198
Punishing cruel	0.40 (-0.096, 0.896)	-0.37 (-0.832, 0.098)	0.300
Electric shock	0.73 (0.083, 1.383)	-0.33 (-0.948, 0.282)	0.391
Itching	0.67 (0.014, 1.320)	-0.10 (-0.816, 0.616)	0.711

CI, confidence interval, $p < 0.05$ is significant.

^aP value for testing change over time from repeated measures ANOVA.

^bClinically significant.

With regard to the second aim, the study successfully introduced the concept of Reiki therapy to 30 participants. According to Thrane and Cohen, a typical Reiki therapy session lasts between 30 and 90 minutes.²⁸ Although 90 minutes may be too long for a Reiki therapy appointment at a military health care facility, the 30-minute Reiki hand placement protocol used for this study appear to be both effective and feasible in outpatient clinic setting. During the study, some participants demonstrated a preference to keep the same practitioner throughout their Reiki sessions despite effort to conform all Reiki sessions (ie, same script at start of Reiki, no talking during, and minimal interaction with practitioners). Although this request is unrealistic in clinic settings, having the same practitioner to conduct all planned sessions may have helped the participant be more comfortable and relaxed to allow the healing to take place. As such, this feasibility study fortuitously identified other possible avenues for research, including implications of training medical professionals to become level I Reiki practitioners to not only improve patient care but to also maintain self-care and self-healing strategies, which could help with provider burnout.

The results pertaining to the third study aim showed that after trying six Reiki therapy sessions at approximately three to four times a week for 2 to 3 weeks, participants were willing to continue their Reiki therapy sessions with four or more appointments per month. The study showed promising effect of Reiki therapy over a wide variety of pain outcomes. Specifically, the results showed improvement for pain described as aching, tingling, pins and needles, sharp, cramping, throbbing,

numbness, shooting, tiring, hot-burning, gnawing, and even pain caused by light touch. In a majority of the participants, a change occurred on or shortly after the third Reiki session regardless of the type of pain. Based on this trend, it is stipulated that pain can be improved after a minimum of three sessions of Reiki therapy. However, the pain outcomes cannot be absolutely attributed to the intervention without a comparison control group. Regarding the overall effect of Reiki, it could be argued that those who volunteered to be in a Reiki study were already opened to the concept of Reiki thereby generating a placebo effect. Given that a placebo effect may occur regardless, it is imperative to conduct follow-on studies that use randomized, blinded, and sham interventions to control for the placebo effect. In addition, there are many in the scientific community that prefer more objective measures for validity and efficacy of energy healing modalities; therefore, future researchers should consider using more objective measures. For example, if the energy flow is found to be thermal, the use of thermal imaging may be useful as well as the use of other tested measures such as galvanic skin response and heart rate variability to name a few.

LIMITATIONS

This study had several limitations. First, the one-group study design hindered the ability to solely attribute the intervention to the observed reduction in pain given that there was no control group to compare with. Second, although the military (53%) and civilian (47%) populations had adequate

representations of both beneficiary groups; the sample was predominantly Caucasian females, which limits the generalizability. Given this information, replication studies with a larger and more diverse population and the use of comparison control groups are crucial. Finally, the use of level 1 Reiki practitioners instead of seasoned Reiki masters may have impacted the outcome.

CONCLUSION

Military health care beneficiaries are looking for innovative options to manage their chronic pain as evidenced by the participants' willingness to schedule four or more Reiki sessions per month if the service became available. A 30-minute Reiki session, performed by a trained Reiki practitioner, is feasible in an outpatient setting with possible positive outcomes for participants who are willing to try at least four consecutive sessions. Reiki has the ability to impact a variety of types of pain as well as positively impacting those activities of life that pain often interferes with. However, education and the opportunity to experience this energy healing modality are key for its acceptance in military health care facilities as well as more robust clinical studies within the military health care system to further assess its validity and efficacy.

SUPPLEMENTARY MATERIAL

Supplementary material is available at *MILMED* online.

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CONFLICT OF INTEREST

None.

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REFERENCES

- Stein D. *Essential Reiki: A Complete Guide to an Ancient Healing Art*. Berkeley, CA, Crossing Press, 1995.
- Usui M, Petter F. *The Original Reiki Handbook of Dr. Mikao Usui*. Twin Lakes, WI, Lotus Light, 2003.
- Langlais S: The 3 levels of reiki: What are they & what do the mean? Available at <https://www.mindbodygreen.com/0-16353/the-3-levels-of-reiki-what-are-they-what-do-they-mean.html>; accessed December 15, 2018.
- Miles P, True G: Reiki: review of a biofield therapy history, theory, practice, and research. *Altern Ther Health Med* 2003; 9: 62–72.
- Center for Reiki Research: What is Reiki? Available at <https://www.centerforreikiresearch.org/WhatIsReiki2.aspx>; accessed April 10, 2019.
- McManus D: Reiki better than placebo and has a broad potential as a complementary health therapy. *J Evid Based Complementary Altern Med* 2017; 22(4): 1051–7.
- Olson K, Hanson J, Michaud M: A phase II trial of Reiki for the management of pain in advanced cancer patients. *J Pain Symptom Manage* 2003; 26(5): 990–7.
- Vitale AT, O'Connor PC: The effect of Reiki on pain and anxiety in women with abdominal hysterectomy: a quasi-experimental pilot study. *Holist Nurs Pract* 2006; 20(6): 263–72.
- Tsang KL, Carlson LE, Olson K: Pilot crossover trial of Reiki versus rest for treating cancer-related fatigue. *Integr Cancer Ther* 2007; 6(1): 25–35.
- Gillespie E, Gillespie BW, Stevens MJ: Painful diabetic neuropathy: impact of an alternative approach. *Diabetes Care* 2007; 30(4): 999–1001.
- Richeson NE, Spross JA, Lutz K, Peng C: Effects of Reiki on anxiety, depression, pain, and physiological factors in community-dwelling older adults. *Res Gerontol Nurs* 2010; 3(3): 187–99.
- Office of the Army Surgeon General: Pain management task force final report. 2010. Available at <https://www.dvcipm.org/site/assets/files/1070/pain-task-force-final-report-may-2010.pdf>; accessed on August 16, 2019.
- Herman P, Sorbero M, Sims-Columbia A: *Complementary and Alternative Medicine in the Military Health System*, Santa Monica, CA, RAND Corporation, 2017.
- Murray S. *Reiki False Beliefs Exposed for all: Misinformation Kept Secret by a Few Revealed*. Mind & Body Productions, Las Vegas, NV, 2006.
- Samueli Institute: Reiki at Fort Belvoir. 2016. Available at <https://www.youtube.com/watch?v=2UIW4G9rRyI>; accessed December 15, 2018.
- Comfort for America's Uniformed Service (CAUSE): *Massage, Reiki and Reflexology*. Available at <https://cause-usa.org/what-we-do/programs/mrr.html>; accessed December 15 2018.
- Associated Bodywork and Massage Professionals: Reiki Program for Veterans with PTSD Receives State Funding. 2015. Available at <https://www.abmp.com/news/reiki-program-veterans-ptsd-receives-state-funding>; accessed December 15, 2018.
- Cleeland, C: *The Brief Pain Inventory: User Guide*. 2009. Available at [https://www.mdanderson.org/documents/Departments-and-Divisions/Symptom Research/BPI_UserGuide.pdf](https://www.mdanderson.org/documents/Departments-and-Divisions/Symptom%20Research/BPI_UserGuide.pdf); accessed December 15, 2018.
- Cleeland CS, Gonin R, Hatfield AK, Edmonson JH, Blum RH, Stewart JA, Pandya KJ: Pain and its treatment in outpatients with metastatic cancer. *N Engl J Med* 1994; 330(9): 592–596.
- Buckenmaier C, Galloway K, Polomano R, McDuffie M, Kwon N, Gallagher R: Preliminary validation of the defense and veterans pain rating scale (DVPRS) in a military population. *Pain Med* 2013; 14(1): 110–23.
- Dworkin R, Turk D, Revicki D, Harding G, et al: Development and initial validation of an expanded and revised version of the short-form McGill pain questionnaire (SF-MPQ-2). *Pain* 2009; 144(1–2): 35–42.
- Lovejoy T, Turk D, Morasco B: Evaluation of the psychometric properties of the revised short-form McGill pain questionnaire. *J Pain* 2012; 13(12): 1250–7.
- Farrara JT, Young JP Jr, LaMoreaux L, Werth JL, Poole RM: Clinical importance of changes in chronic pain intensity measured on an 11-point numerical pain rating scale. *Pain* 2001; 94: 149–58.
- Enders CK. *Applied Missing Data Analysis*. NY, Guilford Press, 2010.
- Keppel G, Wickens TD. *Design and Analysis: A Researcher's Handbook*, Ed 4th. Upper Saddle River NJ, Pearson, 2004.
- Maxwell SE, Delaney HD. *Designing Experiments and Analyzing Data*, Ed 2nd. Mahwah, NJ, Lawrence Erlbaum, 2004.
- Pischke K: Holistic nursing: integrating Reiki in the oncology setting. *Beginnings* 2018; 38(3): 6–24.
- Thrane S, Cohen SM: Effect of Reiki therapy on pain and anxiety in adults: an in-depth literature review of randomized trials with effect size calculations. *Pain Manag Nurs* 2014; 15(4): 897–908.